PPI Power Protection Industries

CATALOGUE

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PPI Power Protection Industries

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- Cable connection solutions
- Electrical fixing & fasteners
- Earthing, surge & lightning protection
- Testing equipment
- Safety & PPE
- Tools

Industry-leading electrical solutions

At PPI, we take pride in delivering industrial electrical materials and customised solutions tailored to the unique needs of our clients in the industrial, mining and infrastructure sectors across the Asia-Pacific region and Australia.

Our extensive capabilities range from innovative design and meticulous procurement of high-quality materials to efficient supply and seamless project management. This comprehensive approach has earned us a reputation as leaders in industrial, mining and infrastructure electrical solutions.

OUR JOURNEY

Since our establishment in 2017, PPI has rapidly expanded our services and reach to meet the diverse needs of our clients. Our dedication to excellence and customer satisfaction has driven us to establish a robust presence in key locations, enabling us to provide superior service and support.

OUR COMMITMENT

At PPI, our mission is to make complex industrial solutions, easy. We are committed to innovation, quality, and customer satisfaction, striving to build lasting relationships with our clients based on trust and excellence.







Explore our full product range

PPI offers a wide selection of products for various electrical industries. To request information on our other ranges, contact us at **sales@ppindustries.com.au**

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Earthing, surge and lightning protection

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DOMESTIC EARTH RODS



DOMESTIC EARTH ROD

PART #	NOMINAL DIA.	ACTUAL DIA.
PPI-DGR1415	12mm	12mm

LENGTH	PACK SIZE	ADDITIONAL INFORMATION
1350mm	10 Ea.	Comes with Earth Tag & Clip

COPPERBONDED EARTH RODS

POINTED SECTIONAL RODS

PART #	NOMINAL DIA.	ACTUAL DIA.	LENGTH	PLATING THICKNESS	COMPLIES WITH
PPI-SGR1360	1/2"	11 mm	1.8 m	254 µm	IEC® EN 62561-2
PPI-SGR1380	1/2"	11 mm	2.4 m	254 µm	IEC® EN 62561-2
PPI-SGR1300	1/2"	11 mm	3.0 m	254 µm	IEC® EN 62561-2
PPI-SGR5860	5/8"	14.1 mm	1.8 m	254 µm	IEC® EN 62561-2
PPI-SGR5880	5/8"	14.1 mm	2.4 m	254 µm	IEC® EN 62561-2
PPI-SGR5800	5/8"	14.1 mm	3.0 m	254 µm	IEC® EN 62561-2
PPI-SGR3460	3/4"	17.2 mm	1.8 m	254 µm	IEC® EN 62561-2
PPI-SGR3480	3/4"	17.2 mm	2.4 m	254 µm	IEC® EN 62561-2

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COPPERBONDED EARTH RODS (cont.)

POINTED SECTIONAL RODS

PART #	NOMINAL DIA.	ACTUAL DIA.	LENGTH	PLATING THICKNESS	COMPLIES WITH
PPI-SGR3400	3/4"	17.2 mm	3.0 m	254 µm	IEC® EN 62561-2
PPI-SGR4480	1"	23.1 mm	2.4 m	254 µm	IEC® EN 62561-2
PPI-SGR4400	1"	23.1 mm	3.0 m	254 µm	IEC® EN 62561-2

THREADED SECTIONAL RODS

PART #	NOMINAL & THREAD DIA.	ACTUAL DIA.	LENGTH	PLATING THICKNESS	COMPLIES WITH
PPI-TGR5860	5/8"	14.1 mm	1.8 m	254 µm	IEC® EN 62561-2
PPI-TGR5880	5/8"	14.1 mm	2.4 m	254 µm	IEC® EN 62561-2
PPI-TGR5800	5/8"	14.1 mm	3.0 m	254 µm	IEC® EN 62561-2
PPI-TGR3460	3/4"	17.2 mm	1.8 m	254 µm	IEC® EN 62561-2
PPI-TGR3480	3/4"	17.2 mm	2.4 m	254 µm	IEC® EN 62561-2
PPI-TGR3400	3/4"	17.2 mm	3.0 m	254 µm	IEC® EN 62561-2
PPI-TGR4480	1"	23.1 mm	2.4 m	254 µm	IEC® EN 62561-2
PPI-TGR4400	1"	23.1 mm	3.0 m	254 µm	IEC® EN 62561-2

316 STAINLESS STEEL EARTH RODS



THREADED SECTIONAL RODS

PART #	NOMINAL DIA.	ACTUAL DIA.	LENGTH	THREAD DIA.	COMPLIES WITH
PPI-TGR5860SS	5/8"	14.2mm	1.8m	5/8" UNC	-
PPI-TGR5800SS	5/8"	12.5 mm	3.0m	5/8" UNC	-
PPI-TGR3460SS	3/4"	17mm	3.0 m	3/4" UNC	-
PPI-TGR5860SS	3/4"	17mm	2.4 m	3/4" UNC	-

We manufacture solid stainless steel rods in our warehouse, many other sizes available with a short turnaround time.

EARTH RODS

GROUND ROD COUPLERS



THREADED

PART #	NOMINAL DIA.	ACTUAL DIA.
PPI CP12	1/2"	12.1 mm
PPI CP58	5/8"	14.2 mm
PPI CP34	3/4"	17.1 mm

COMPRESSION

PART #	NOMINAL DIA.	ACTUAL DIA.
PPI CPS58	5/8"	14.2 mm
PPI CPS34	3/4"	17.3 mm

STAINLESS STEEL THREADED

PART #	NOMINAL DIA.	ACTUAL DIA.
PPI-SSCP58	5/8" UNC	-
PPI-SSCP34	3/4" UNC	-

GROUND ROD DRIVING STUD



HIGH TENSILE

PART #	TO SUIT GROUND ROD
PPI DS12	1/2"
PPI DS58	5/8"
PPI DS34	3/4"

GROUND ROD DRIVING TIP



HIGH TENSILE

PART #	TO SUIT GROUND ROD
PPI DT58	5/8"
PPI DT34	3/4"

EARTH RODS

GROUND ROD DRIVER



SUITS ALL GROUND RODS IN OUR RANGE

PART NUMBER	GROUND ROD DIA.	LENGTHL
PPI GRD34	3/4" Max	1,500 mm
PPI GRD58	5/8" Max	1,500 mm

WELDABLE EARTHING PLATES



SINGLE HOLE - 12MM THREAD

PART #	DESCRIPTION
PPI-0.5X70DB12BL	DB12 PLATE to 0.5MTR 70MM2 EARTH CABLE
DB12CS701	DB12 PLATE to 1MTR 70MM2 EARTH CABLE
PPI-2X70DB12BL	DB12 PLATE to 2MTR 70MM2 EARTH CABLE
PPI-3X70DB12BL	DB12 PLATE to 3MTR 70MM2 EARTH CABLE
PPI-0.5X120DB12BL	DB12 PLATE to 0.5MTR 120MM2 EARTH CABLE
DB12CS1201	DB12 PLATE to 1MTR 120MM2 EARTH CABLE
PPI-2X120DB12BL	DB12 PLATE to 2MTR 120MM2 EARTH CABLE
PPI-3X120DB12BL	DB12 PLATE to 3MTR 120MM2 EARTH CABLE

SINGLE HOLE - 16MM THREAD

PART #	DESCRIPTION
PPI-0.5X70DB16BL	DB16 PLATE to 0.5MTR 70MM2 EARTH CABLE
DB16CS701	DB16 PLATE to 1MTR 70MM2 EARTH CABLE
PPI-2X70DB16BL	DB16 PLATE to 2MTR 70MM2 EARTH CABLE
PPI-3X70DB16BL	DB16 PLATE to 3MTR 70MM2 EARTH CABLE
PPI-0.5X120DB16BL	DB16 PLATE to 0.5MTR 120MM2 EARTH CABLE
PPI-1X120DB16BL	DB16 PLATE to 1MTR 120MM2 EARTH CABLE
PPI-2X120DB16BL	DB16 PLATE to 2MTR 120MM2 EARTH CABLE
PPI-3X120DB16BL	DB16 PLATE to 3MTR 120MM2 EARTH CABLE

STRUCTURAL EARTHING

WELDABLE EARTHING PLATES



DOUBLE HOLE 1/2” THREAD

PART #	DESCRIPTION
PPI-0.5X70B1622BL	B162-2Q PLATE to 70MM2 EARTH CABLE - 0.5M LONG
B1622QC701	B162-2Q PLATE to 70MM2 EARTH CABLE - 1M LONG
PPI-2X70B1622BL	B162-2Q PLATE to 70MM2 EARTH CABLE - 2M LONG
PPI-3X70B1622BL	B162-2Q PLATE to 70MM2 EARTH CABLE - 3M LONG
PPI-0.5X120B1621	B162-2Q PLATE to 120MM2 EARTH CABLE - 0.5M LONG
PPI-1X120B1622	B162-2Q PLATE to 120MM2 EARTH CABLE - 1M LONG
PPI-2X120B1622BL	B162-2Q PLATE to 120MM2 EARTH CABLE - 2M LONG
PPI-3X120B1622	B162-2Q PLATE to 120MM2 EARTH CABLE - 3M LONG

CABLE BOND

PART #	DESCRIPTION
PPI1X352XSTEEL	2 X 12MM REBAR JOINED BY 35MM2 CABLE - 1M LONG
PPI1X702XSTEEL	2 X 12MM REBAR JOINED BY 70MM2 CABLE - 1M LONG
PPI1X1202XSTEEL	2 X 12MM REBAR JOINED BY 120MM2 CABLE - 1M LONG
PPI0.5X352XSTEEL	2 X 12MM REBAR JOINED BY 35MM2 CABLE - 0.5M LONG
PPI0.5X702XSTEEL	2 X 12MM REBAR JOINED BY 70MM2 CABLE - 0.5M LONG
PPI0.5X1202XSTEEL	2 X 12MM REBAR JOINED BY 120MM2 CABLE - 0.5M LONG

Note: Other cable sizes, lengths and combinations are available on request.

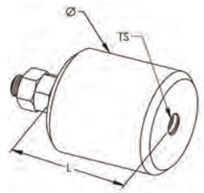
REBAR CLAMPS



SUITABLE FOR DIRECT BURIAL, HIGH STRENGTH BRONZE ALLOY

PART #	REBAR SIZE	CONFIGURATION	MIN. COND SIZE	MAX COND SIZE
PPI RBK16	12 - 25 mm	Parallel	6 mm²	25 mm²
PPI RBK17	12 - 25 mm	Perpindicular	6 mm²	25 mm²
PPI RBC818	8-18 mm	Double Bolted	10mm²	95 mm²
PPI RBC1836	18-36 mm	Double Bolted	10mm²	95mm²

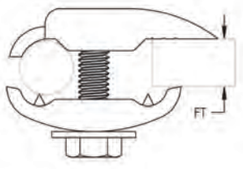
EARTH BOSS



WELDED BOND CONNECTION POINT - 50MM LONG

PART #	MATERIAL	ø	TS
PPI-EBOSS-MS	Mild Steel	50 mm	M10
PPI-EBOSS-SS	Stainless Steel	50 mm	M10

BEAM BONDING CLAMPS

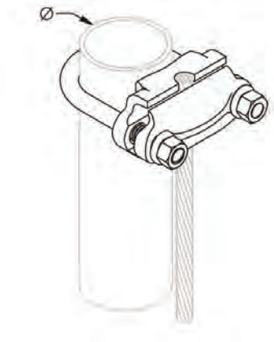


CLAMP CABLE TO FLAT METAL I-BEAM, ANGLE, CHANNEL

PART #	FT	DEPTH	WIDTH	WEIGHT
PPI BBC559	6.4 mm Max	57.15 mm	40.6 mm	0.175 kg
PPI BBC559L	6.4 mm Max	57.15 mm	40.6 mm	0.175 kg

STRUCTURAL EARTHING

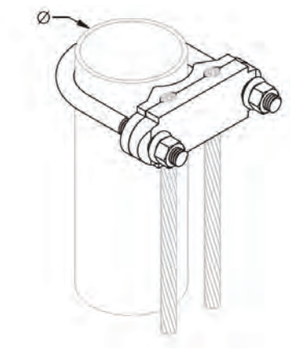
FENCE CLAMPS - SINGLE CONDUCTOR



TINNED CAST BRONZE, STAINLESS STEEL HARDWARE

PART NUMBER	FENCE POST SIZE	CONDUCTOR RANGE	COMPLIES WITH	CERTIFICATIONS
PPI-FC073	1 1/2" (48 mm)	16 mm² - 70 mm²	–	–
PPI-FC074	1 1/2" (48 mm)	50 mm² - 120 mm²	–	–
PPI-FC075	2" (60 mm)	16 mm² - 70 mm²	IEC® 62561-1	cULus
PPI-FC076	2" (60 mm)	50 mm² - 120 mm²	IEC® 62561-1	–
PPI-FC078	2 1/2" (73 mm)	16 mm² - 120 mm²	–	–
PPI-FC079	3" (89 mm)	16 mm² - 70 mm²	–	–
PPI-FC080	3" (89 mm)	50 mm² - 120 mm²	–	–
PPI-FC082	3 1/2" (102 mm)	16 mm² - 120 mm²	–	–

FENCE CLAMPS - DOUBLE CONDUCTOR



TINNED CAST BRONZE, STAINLESS STEEL HARDWARE

PART NUMBER	FENCE POST SIZE	CONDUCTOR RANGE	COMPLIES WITH	CERTIFICATIONS
PPI FC076DH	2" (60 mm)	50 mm² - 120 mm²	–	–
PPI FC078DH	2 1/2" (73 mm)	16 mm² - 120 mm²	–	–
PPI FC082DH	3 1/2" (102 mm)	16 mm² - 120 mm²	-	-

MBJ GROUNDING AND BONDING BRAID, TINNED COPPER

MATERIAL: COPPER, FINISH: TINNED

PART NUMBER	AMPACITY	T	CSA	L	HS	A	B	WEIGHT
MBJ35-100-10	197 A	2.1 mm	35 mm²	100 mm	10.5 mm	22 mm	28 mm	0.037 kg
MBJ35-150-10	197 A	2.1 mm	35 mm²	150 mm	10.5 mm	22 mm	28 mm	0.054 kg
MBJ35-200-10	197 A	2.1 mm	35 mm²	200 mm	10.5 mm	22 mm	28 mm	0.072 kg
MBJ35-250-10	197 A	2.1 mm	35 mm²	250 mm	10.5 mm	22 mm	28 mm	0.089 kg
MBJ35-300-10	197 A	2.1 mm	35 mm²	300 mm	10.5 mm	22 mm	28 mm	0.110 kg
MBJ35-500-10	197 A	2.1 mm	35 mm²	500 mm	10.5 mm	22 mm	28 mm	0.180 kg
MBJ50-100-10	250 A	2.5 mm	50 mm²	100 mm	10.5 mm	28 mm	33 mm	0.052 kg
MBJ50-150-10	250 A	2.5 mm	50 mm²	150 mm	10.5 mm	28 mm	33 mm	0.077 kg
MBJ50-200-6	250 A	2.5 mm	50 mm²	200 mm	6.5 mm	28 mm	33 mm	0.120 kg
MBJ50-200-10	250 A	2.5 mm	50 mm²	200 mm	10.5 mm	28 mm	33 mm	0.120 kg
MBJ50-200-12	250 A	2.5 mm	50 mm²	200 mm	12.5 mm	28 mm	33 mm	0.120 kg
MBJ50-200-16	250 A	2.5 mm	50 mm²	200 mm	16.5 mm	28 mm	33 mm	0.110 kg
MBJ50-250-10	250 A	2.5 mm	50 mm²	250 mm	10.5 mm	28 mm	33 mm	0.127 kg
MBJ50-300-6	250 A	2.5 mm	50 mm²	300 mm	6.5 mm	28 mm	33 mm	0.150 kg

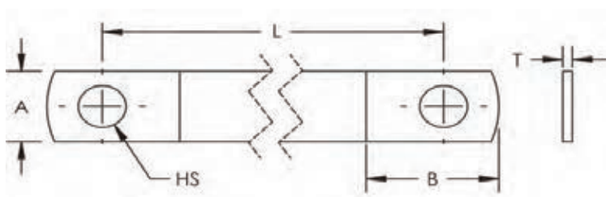
EARTH BRAIDS

MBJ GROUNDING AND BONDING BRAID, TINNED COPPER (cont.)

MATERIAL: COPPER, FINISH: TINNED

PART NUMBER	AMPACITY	T	CSA	L	HS	A	B	WEIGHT
MBJ50-300-10	250 A	2.5 mm	50 mm²	300 mm	10.5 mm	28 mm	33 mm	0.153 kg
MBJ50-300-16	250 A	2.5 mm	50 mm²	300 mm	16.5 mm	28 mm	33 mm	0.150 kg
MBJ50-500-10	250 A	2.5 mm	50 mm²	500 mm	10.5 mm	28 mm	33 mm	0.255 kg
MBJ50-500-12	250 A	2.5 mm	50 mm²	500 mm	12.5 mm	28 mm	33 mm	0.255 kg
MBJ70-300-6	290 A	3.4 mm	70 mm²	300 mm	6.5 mm	28 mm	33 mm	0.210 kg
MBJ70-300-10	290 A	3.4 mm	70 mm²	300 mm	10.5 mm	28 mm	33 mm	0.210 kg
MBJ70-300-12	290 A	3.4 mm	70 mm²	300 mm	12.5 mm	28 mm	33 mm	0.210 kg
MBJ70-300-16	290 A	3.4 mm	70 mm²	300 mm	16.5 mm	28 mm	33 mm	0.200 kg
MBJ70-500-10	290 A	3.4 mm	70 mm²	500 mm	10.5 mm	28 mm	33 mm	0.340 kg

These are some of the more popular sizes for Earthing, many other sizes and lengths available.



CPI GROUNDING AND BONDING BRAID

MATERIAL: STAINLESS STEEL 316L

PART NUMBER	AMPACITY	T	L	HS	A	B	WEIGHT
CPI35-150-12	35 mm²	4.0 mm	150 mm	13.0 mm	26.5 mm	30 mm	0.071 kg
CPI35-200-12	35 mm²	4.0 mm	200 mm	13.0 mm	26.5 mm	30 mm	0.085 kg
CPI35-250-12	35 mm²	4.0 mm	250 mm	13.0 mm	26.5 mm	30 mm	0.099 kg
CPI35-300-12	35 mm²	4.0 mm	300 mm	13.0 mm	26.5 mm	30 mm	0.112 kg
CPI35-400-12	35 mm²	4.0 mm	400 mm	13.0 mm	26.5 mm	30 mm	0.140 kg
CPI35-600-12	35 mm²	4.0 mm	600 mm	13.0 mm	26.5 mm	30 mm	0.195 kg
CPI50-150-12	50 mm²	5.0 mm	150 mm	13.0 mm	30.0 mm	30 mm	0.111 kg
CPI50-200-12	50 mm²	5.0 mm	200 mm	13.0 mm	30.0 mm	30 mm	0.130 kg
CPI50-250-12	50 mm²	5.0 mm	250 mm	13.0 mm	30.0 mm	30 mm	0.150 kg
CPI50-300-12	50 mm²	5.0 mm	300 mm	13.0 mm	30.0 mm	30 mm	0.170 kg
CPI50-400-12	50 mm²	5.0 mm	400 mm	13.0 mm	30.0 mm	30 mm	0.209 kg
CPI50-600-12	50 mm²	5.0 mm	600 mm	13.0 mm	30.0 mm	30 mm	0.288 kg
CPI70-1100-12	70 mm²	5.8 mm	1,100 mm	13.0 mm	30.0 mm	30 mm	0.664 kg
CPI70-150-12	70 mm²	5.8 mm	150 mm	13.0 mm	30.0 mm	30 mm	0.139 kg

EARTH BRAIDS

CPI GROUNDING AND BONDING BRAID (cont.)

MATERIAL: STAINLESS STEEL 316L

PART NUMBER	AMPACITY	T	L	HS	A	B	WEIGHT
CPI70-200-12	70 mm²	5.8 mm	200 mm	13.0 mm	30.0 mm	30 mm	0.167 kg
CPI70-250-12	70 mm²	5.8 mm	250 mm	13.0 mm	30.0 mm	30 mm	0.194 kg
CPI70-300-12	70 mm²	5.8 mm	300 mm	13.0 mm	30.0 mm	30 mm	0.222 kg
CPI70-400-12	70 mm²	5.8 mm	400 mm	13.0 mm	30.0 mm	30 mm	0.277 kg
CPI70-600-12	70 mm²	5.8 mm	600 mm	13.0 mm	30.0 mm	30 mm	0.388 kg
CPI70-800-12	70 mm²	5.8 mm	800 mm	13.0 mm	30.0 mm	30 mm	0.498 kg

COPPER EARTH BARS



STANDARD EARTH BAR

PART NUMBER	FINISH	HOLES	LENGTH	HARDWARE
PPI-EB-004-M10	ANNEALED COPPER 50X6.3	4	220	M10 304SS
PPI-EB-005-M10	ANNEALED COPPER 50X6.3	5	250	M10 304SS
PPI-EB-006-M10	ANNEALED COPPER 50X6.3	6	280	M10 304SS
PPI-EB-007-M10	ANNEALED COPPER 50X6.3	7	310	M10 304SS
PPI-EB-008-M10	ANNEALED COPPER 50X6.3	8	340	M10 304SS
PPI-EB-010-M10	ANNEALED COPPER 50X6.3	10	400	M10 304SS
PPI-EB-015-M10	ANNEALED COPPER 50X6.3	15	550	M10 304SS
PPI-EB-020-M10	ANNEALED COPPER 50X6.3	20	700	M10 304SS
PPI-EB-004-M12	ANNEALED COPPER 50X6.3	4	220	M12 304SS
PPI-EB-005-M12	ANNEALED COPPER 50X6.3	5	250	M12 304SS
PPI-EB-006-M12	ANNEALED COPPER 50X6.3	6	280	M12 304SS
PPI-EB-007-M12	ANNEALED COPPER 50X6.3	7	310	M12 304SS
PPI-EB-008-M12	ANNEALED COPPER 50X6.3	8	340	M12 304SS
PPI-EB-010-M12	ANNEALED COPPER 50X6.3	10	400	M12 304SS
PPI-EB-015-M12	ANNEALED COPPER 50X6.3	15	550	M12 304SS
PPI-EB-020-M12	ANNEALED COPPER 50X6.3	20	700	M12 304SS

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COPPER EARTH BARS (CONT.)



STANDARD EARTH BAR

PART NUMBER	FINISH	HOLES	LENGTH	HARDWARE
PPI-TEB-004-M10	TINNED COPPER 50X6.3	4	220	M10 304SS
PPI-TEB-005-M10	TINNED COPPER 50X6.3	5	250	M10 304SS
PPI-TEB-006-M10	TINNED COPPER 50X6.3	6	280	M10 304SS
PPI-TEB-007-M10	TINNED COPPER 50X6.3	7	310	M10 304SS
PPI-TEB-008-M10	TINNED COPPER 50X6.3	8	340	M10 304SS
PPI-TEB-010-M10	TINNED COPPER 50X6.3	10	400	M10 304SS
PPI-TEB-015-M10	TINNED COPPER 50X6.3	15	550	M10 304SS
PPI-TEB-020-M10	TINNED COPPER 50X6.3	20	700	M10 304SS
PPI-TEB-004-M12	TINNED COPPER 50X6.3	4	220	M12 304SS
PPI-TEB-005-M12	TINNED COPPER 50X6.3	5	250	M12 304SS
PPI-TEB-006-M12	TINNED COPPER 50X6.3	6	280	M12 304SS
PPI-TEB-007-M12	TINNED COPPER 50X6.3	7	310	M12 304SS
PPI-TEB-008-M12	TINNED COPPER 50X6.3	8	340	M12 304SS
PPI-TEB-010-M12	TINNED COPPER 50X6.3	10	400	M12 304SS
PPI-TEB-015-M12	TINNED COPPER 50X6.3	15	550	M12 304SS
PPI-TEB-020-M12	TINNED COPPER 50X6.3	20	700	M12 304SS

COPPER EARTH BARS (CONT.)



EARTH BAR WITH DISCONNECT LINK

PART NUMBER	FINISH	HOLES	LENGTH	HARDWARE
PPI-EB-104-M10	ANNEALED COPPER 50X6.3	4	230	M10 304SS
PPI-EB-105-M10	ANNEALED COPPER 50X6.3	5	260	M10 304SS
PPI-EB-106-M10	ANNEALED COPPER 50X6.3	6	290	M10 304SS
PPI-EB-107-M10	ANNEALED COPPER 50X6.3	7	320	M10 304SS
PPI-EB-108-M10	ANNEALED COPPER 50X6.3	8	350	M10 304SS
PPI-EB-110-M10	ANNEALED COPPER 50X6.3	10	410	M10 304SS
PPI-EB-104-M12	ANNEALED COPPER 50X6.3	4	230	M12 304SS
PPI-EB-105-M12	ANNEALED COPPER 50X6.3	5	260	M12 304SS
PPI-EB-106-M12	ANNEALED COPPER 50X6.3	6	290	M12 304SS
PPI-EB-107-M12	ANNEALED COPPER 50X6.3	7	320	M12 304SS
PPI-EB-108-M12	ANNEALED COPPER 50X6.3	8	350	M12 304SS
PPI-EB-110-M12	ANNEALED COPPER 50X6.3	10	410	M12 304SS

CONTINUED ON NEXT PAGE ›

COPPER EARTH BARS (CONT.)



EARTH BAR WITH DISCONNECT LINK

PART NUMBER	FINISH	HOLES	LENGTH	HARDWARE
PPI-TEB-104-M10	TINNED COPPER 50X6.3	4	230	M10 304SS
PPI-TEB-105-M10	TINNED COPPER 50X6.3	5	260	M10 304SS
PPI-TEB-106-M10	TINNED COPPER 50X6.3	6	290	M10 304SS
PPI-TEB-107-M10	TINNED COPPER 50X6.3	7	320	M10 304SS
PPI-TEB-108-M10	TINNED COPPER 50X6.3	8	350	M10 304SS
PPI-TEB-110-M10	TINNED COPPER 50X6.3	10	410	M10 304SS
PPI-TEB-104-M12	TINNED COPPER 50X6.3	4	230	M12 304SS
PPI-TEB-105-M12	TINNED COPPER 50X6.3	5	260	M12 304SS
PPI-TEB-106-M12	TINNED COPPER 50X6.3	6	290	M12 304SS
PPI-TEB-107-M12	TINNED COPPER 50X6.3	7	320	M12 304SS
PPI-TEB-108-M12	TINNED COPPER 50X6.3	8	350	M12 304SS
PPI-TEB-110-M12	TINNED COPPER 50X6.3	10	410	M12 304SS

EXOTHERMIC CONNECTIONS

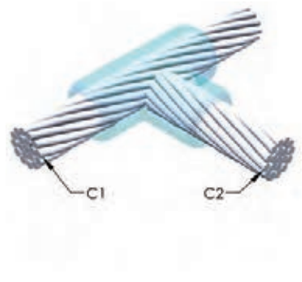


PT TYPE CONNECTION

C1	C2	MOULD #	WELDMETAL
25	25	PTCY1Y1	45
35	25	PTCY2Y1	65
35	35	PTCY2Y2	65
50	35	PTCY3Y2	65
50	50	PTCY3Y3	90
70	50	PTCY4Y3	115
70	70	PTCY4Y4	115
95	50	PTCY5Y3	150
95	70	PTCY5Y4	150
95	95	PTCY5Y5	200
120	70	PTCY6Y4	150
120	95	PTCY6Y5	200
120	120	PTCY6Y6	250

BURIED CABLE CONNECTIONS

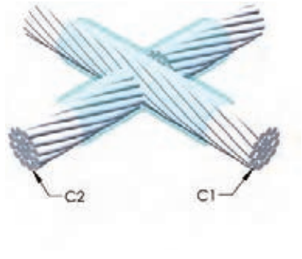
EXOTHERMIC CONNECTIONS



TA TYPE CONNECTION

C1	C2	MOULD #	WELDMETAL
25	25	TACY1Y1	32
35	25	TACY2Y1	45
35	35	TACY2Y2	45
50	25	TACY3Y1	45
50	35	TACY3Y2	45
50	50	TACY3Y3	90
70	25	TACY4Y1	45
70	35	TACY4Y2	45
70	50	TACY4Y3	90
70	70	TACY4Y4	90
95	50	YACY5Y3	90
95	70	TACY5Y4	90
95	95	TACY5Y5	115
120	70	TACY6Y4	90
120	95	TACY6Y5	150
120	120	TACY6Y6	150

EXOTHERMIC CONNECTIONS

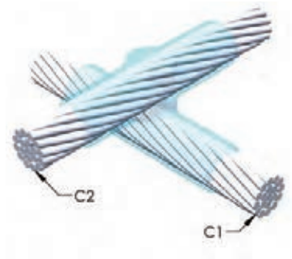


XA TYPE CONNECTION

C1	C2	MOULD #	WELDMETAL
25	25	XACY1Y1	45
35	25	XACY2Y1	65
35	35	XACY2Y2	65
50	35	XACY3Y2	90
50	50	XACY3Y3	90
70	50	XACY4Y3	115
70	70	XACY4Y4	115
95	50	YACY5Y3	150
95	70	XACY5Y4	150
95	95	XACY5Y5	200
120	70	XACY6Y4	200
120	95	XACY6Y5	200
120	120	XACY6Y6	200

BURIED CABLE CONNECTIONS

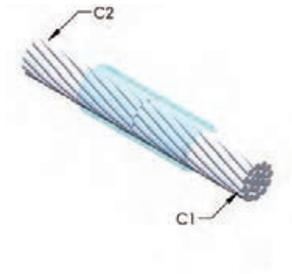
EXOTHERMIC CONNECTIONS



XB TYPE CONNECTION

C1	C2	MOULD #	WELDMETAL
25	25	XBCY1Y1	65
35	35	XBCY2Y2	90
50	50	XBQY3Y3	150
70	70	XBQY4Y4	200
95	95	XBQY5Y5	250
120	120	XBQY6Y6	300

EXOTHERMIC CONNECTIONS



SS TYPE CONNECTION

C1	C2	MOULD #	WELDMETAL
25	25	SSCY1	32
35	35	SSCY2	32
50	50	SSCY3	45
70	70	SSCY4	65
95	95	SSCY5	90
120	120	SSCY6	115

EXOTHERMIC CONNECTIONS



GY TYPE CONNECTION

ROD SIZE	C1	MOULD #	WELDMETAL
12.7MM	25	GYRP128Y1	90
	35	GYRP128Y2	90
	50	GYRP128Y3	115
	70	GYRP128Y4	115
	95	GYRP128Y5	150
	120	GYRP128Y6	150
14.2MM	25	GYPR143Y1	90
	35	GYPR143Y2	90
	50	GYPR143Y3	115
	70	GYPR143Y4	115
	95	GYPR143Y5	150
	120	GYPR143Y6	150
17.2MM	25	GYRP173Y1	90
	35	GYRP173Y2	90
	50	GYRP173Y3	115
	70	GYRP173Y4	150
	95	GYRP173Y5	150
	120	GYRP173Y6	250

BURIED CABLE CONNECTIONS

WELDMETALS



CADWELD PLUS

PART NUMBER	COLOR CODE RING	CERTIFICATIONS	STANDARD PACKAGING QUANTITY
115PLUSF20	Orange	cULus	10 pc
1250PLUSF20	None	–	5 pc
150PLUSF20	Dark Blue	cULus	10 pc
15PLUSF20	Black	cULus	20 pc
200PLUSF20	Yellow	cULus	10 pc
250PLUSF20	Purple	cULus	10 pc
25PLUSF20	Red	cULus	20 pc
300PLUSF20	Light Green	cULus	10 pc
32PLUSF20	White	cULus	20 pc
400PLUSF20	Brown	–	10 pc
45PLUSF20	Light Blue	cULus	20 pc
500PLUSF20	Light Brown	–	10 pc
600PLUSF20	White	–	10 pc

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WELDMETALS



CADWELD PLUS (CONT.)

PART #	COLOUR CODE RING	CERTIFICATIONS	STANDARD PACKAGING QUANTITY
65PLUSF20	Dark Green	cULus	20 pc
750PLUSF20	White	–	5 pc
90PLUSF20	Gray	cULus	10 pc

CLASSIC WELDMETALS



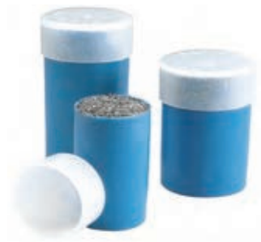
CLASSIC WELDMETALS

PART NUMBER	STANDARD PACKAGING QUANTITY
15	20 pc
25	20 pc
32	20 pc
45	20 pc
65	20 pc
90	10 pc
115	10 pc
150	10 pc

CONTINUED ON NEXT PAGE ›

BURIED CABLE CONNECTIONS

CLASSIC WELDMETALS



CLASSIC WELDMETALS (CONT.)

PART #	STANDARD PACKAGING QTY
200	10 pc
250	10 pc
500	10 pc

EXOTHERMIC ACCESSORIES

EXOTHERMIC ACCESSORIES

PART NUMBER	STANDARD PACKAGING QUANTITY
PLUSCU2L6	nVent ERICO Cadweld Plus Impulse Exothermic Welding Control Unit, 6' Cable
PLUSCU2L15	nVent ERICO Cadweld Plus Impulse Exothermic Welding Control Unit, 15' Cable
PLUSCU2BAA	Battery Adapter for nVent ERICO Cadweld Plus Impulse Control Unit, AA Battery
PLUSCU2BD	Battery Adapter for nVent ERICO Cadweld Plus Impulse Control Unit, DEWALT 20 V Battery
PLUSCU2BM	Battery Adapter for nVent ERICO Cadweld Plus Impulse Control Unit, Milwaukee 18 V Battery
PLUSCU2RLD15	Replacement Lead for nVent ERICO Cadweld Plus Impulse Control Unit, 15' Cable
PLUSCU2RLD6	Replacement Lead for nVent ERICO Cadweld Plus Impulse Control Unit, 6' Cable
B134	Support Clamp for Vertical Flat Steel Surface, L160 Handle Clamp

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EXOTHERMIC ACCESSORIES

EXOTHERMIC ACCESSORIES (CONT.)

PART NUMBER	STANDARD PACKAGING QUANTITY
B135	Support Clamp for Vertical Flat Steel Surface, L159 Handle Clamp
B136A	Mold Cleaner, Most ERICO CADWELD molds using #65 welding material and smaller
B136B	Mold Cleaner, Most ERICO CADWELD molds using #90 welding material and larger
B140A	Copper Shim .013 X 3" X 1-1/2" Long
B140B	Copper Shim .013 X 3" X 2-1/2" Long
B141A	Copper Shim, 38.1 mm x 76.2 mm
L159	Handle Clamp, D, F, J, Z Molds
L160	Handle Clamp, C, E, Q, R Molds
T306	Ceramic Blanket
T313	Card Cloth Brush
T314	Wire Brush, Brush with Replaceable Brush Heads
T314A	Cable Cleaning Brush Replacement
T315A	ERICO CADWELD Tool Kit, Complete Kit

CONTINUED ON NEXT PAGE ›

BURIED CABLE CONNECTIONS

EXOTHERMIC ACCESSORIES

EXOTHERMIC ACCESSORIES

PART NUMBER	STANDARD PACKAGING QUANTITY
T320	Flint Ignitor
T320A	Replacement Flints for T320 Flint Ignitor
T321	Rasp
T321A	Replacement Blade for T321 Rasp
T328D	Spare Disks - Container Includes 25 of Each Disk Size
T329	File with Handle
T331	Large Tool Tray (not for use with T396)
T336	BRUSH,WIRE
T372A	Galvanizing Spray
T394	Mold Cleaning Brush, Narrow
T396	Tool Box
T403	Mold Sealer
T427	Includes range of adapter sleeves, copper shim, steel disks and replacement flint for T320

C-CRIMP CONNECTORS



C-CRIMP CONNECTORS

BARE COPPER	COPPER WIRE RANGE		DIMENSIONS (MM)			
PART #	MAIN	TAP	L	W	H	DIE INDEX
ULT-1-MM	4mm2	4mm2	9,3	7,1	8,1	238
ULT-2-MM	6-10mm2	6mm2	12,3	9	12,7	162
ULT-3-MM	16-25mm2	10mm2	18,7	11,9	15,6	BG
ULT-4-MM	16-25mm2	16mm2	19,4	11,7	17,8	BG
ULT-5-MM	16-25mm2	25mm2	21,1	11,9	17,8	BG
ULT-6-MM	35mm2	10-25mm2	25,1	15,6	21,1	C
ULT-7-MM	35mm2	35mm2	26,6	15,6	21	C
ULT-8-MM	50-70mm2	10-35mm2	34,3	20,6	23,5	O
ULT-9-MM	50-70mm2	50-70mm2	34,3	20,6	23,5	O
ULT-10-MM	95mm2	16-25mm2	41,4	25,4	27,3	D3
ULT-11-MM	95-120mm2	50-70mm2	41,4	25,4	27,3	D3
ULT-12-MM	95mm2	95mm2	40,9	25,4	30,5	D3

E-CRIMP CONNECTORS

E-CRIMP CONNECTORS

BARE COPPER	COPPER WIRE RANGE		DIMENSIONS (MM)	
PART #	MAIN	TAP	W	DIE INDEX
ELT-1-MM	16-35mm2	16-35mm2	19,1	C
ELT-2-MM	50-70mm2	50-7mm2	19,1	0
ELT-3-MM	95-120mm2	95-120mm2	22,9	997
ELT-4-MM	50-70mm2	16-35mm2	19,1	0
ELT-5-MM	95-120mm2	16-70mm2	19,1	997
ELT-6-MM	150-240mm2	95-120mm2	22,2	1011
ELT-7-MM	150-240mm2	16-70mm2	22,2	1011
ELT-8-MM	150-240mm2	150-240mm2	22,2	1011

BURIED CABLE CONNECTIONS

FIGURE 6 CRIMP CONNECTORS



FIGURE 6 CRIMP CONNECTORS

BARE COPPER	COPPER WIRE RANGE		MAIN REBAR	MAIN ROD	DIMENSIONS (MM)			
PART #	MAIN	TAP			L	W	DIA.	DIE INDEX
GGC-1-MM	16-35mm2	16-35mm2	-	-	35,6	19,1	8,4	O
GGC-2-MM	50-120mm2 12-15mm Rod	25-35mm2	10-13mm	12-15mm	53,3	19,1	8,4	997
GGC-3-MM	50-120mm2 12-15mm Rod	50-70mm2	10-13mm	12-15mm	53,3	19,1	11,2	997
GGC-4-MM	50-120mm2 12-15mm Rod	70-120mm2	10-13mm	12-15mm	53,3	19,1	15,5	997
GGC-5-MM	120-240mm2 15-19mm Rod	25-35mm2	16-19mm	15-19mm	66	19,1	8,4	998
GGC-6-MM	120-240mm2 15-19mm Rod	50-70mm2	16-19mm	15-19mm	66	19,1	11,2	998
GGC-7-MM	120-240mm2 15-19mm Rod	70-120mm2	16-19mm	15-19mm	66	19,1	15,5	998
GGC-6-MM	120-240mm2 15-19mm Rod	185-240mm2	16-19mm	15-19mm	73,7	19,1	21,3	998/1011
GGC-4-MM	50-120mm2 12-15mm Rod	16mm2	10-13mm	12-15mm	66	19,1	-	997

FIGURE 6 CRIMP CONNECTORS

FIGURE 6 CRIMP CONNECTORS

BARE COPPER	COPPER WIRE RANGE		CABLE TO GROUND ROD		REBAR	DIE INDEX		
PART #	SIDE A	SIDE B	SIDE A	SIDE B	SIDE B	SIDE A	SIDE B	NO. CRIMPS
GGA-1-MM	16-35mm2	16-35mm2	-	-		O	O	1
GGA-2-MM	50-120mm2	16-35mm2	12-15mm	16-35mm2	10-13mm	997	O	1
GGA-3-MM	35-120mm2	35-120mm2	12-15mm	35-120mm2	10-13mm	997	997	1
GGA-4-MM	120-240mm2	16-35mm2	15-19mm	16-35mm2	16-19mm	998	0	1

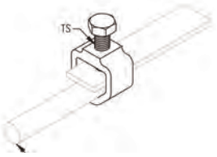
DOMESTIC EARTH ROD CLAMP



PART #	Ø	TAPE SIZES
PPI ERD1	12.7mm	16mm² max

EARTH ROD TO FLAT TAPE CLAMP



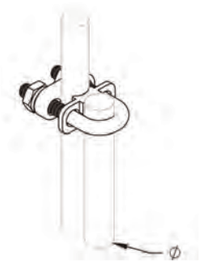


TO IEC 62561-1

PART #	Ø	TAPE SIZES
PPI RTC10	1/2", 5/8", 3/4"	26 x 12mm
PPI RTC30	5/8"	40 x 12mm
PPI RTC40	5/8"	51 x 8mm
PPI RTC50	3/4"	51 x 12mm

U BOLT EARTH ROD TO CABLE & FLAT TAPE CLAMPS





TO IEC 62561-1

PART #	Ø	NO. OF CONDUCTORS	CONDUCTOR SIZES	NO. OF TAPES	TAPE SIZES
PPI-UBC1C1	5/8" to 3/4"	1	50-120mm²		
PPI-UBC1C2	5/8" to 3/4"	2	50-120mm²		
PPI-UBC2C2	5/8" to 3/4"	2	70-120mm²		
PPI-UBC2C1	5/8" to 3/4"	1	70-120mm²		25 x 3mm
PPI-UBC2T2	5/8" to 3/4"			1 or 2	25 x 3mm

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EARTHING CLAMPS

U BOLT EARTH ROD TO CABLE & FLAT TAPE CLAMPS (cont.)





TO IEC 62561-1

PART #	Ø	NO. OF CONDUCTORS	CONDUCTOR SIZES	NO. OF TAPES	TAPE SIZES
PPI-UBC3T2	30mm			1 or 2	50 x 6mm
PPI-UBC3T1	40mm			1	25 x 3mm
PPI X170	5/8" to 1"	1	16-70mm²	Horizontal or Vertical to Earth Rod	
PPI X1185			70-185mm²		

GROUND ENHANCEMENT MATERIAL



GEM GROUND ENHANCEMENT

PART NUMBER	PACKAGING	COMPLIES WITH
GEM25A	Bag with handles	IEC® 62561-7
GEM25ABKT	Plastic bucket with locking lid	IEC® 62561-7

SUGGESTED SPECIFICATIONS

PARAMETER	RECOMMENDED VALUES	TEST METHOD
Standards Compliance		Full compliance to IEC 62561-7 EPA Toxicity Characteristic Leaching Procedure (TCLP), test method 1311
Resistivity	‹ 2 Ω-cm for powder ‹ 20 Ω-cm for mixed and cured material	Compressed powder according to ASTM G187-12 Mixed and cured per ASTM D991-89

EARTHING ACCESSORIES

GROUND ENHANCEMENT MATERIAL

ESTIMATED LINEAR MEASUREMENT OF GROUND CONDUCTOR COVERING WITH EACH BAG OF GEM

TRENCH WIDTH	TOTAL THICKNESS OF GEM		
	10.2 CM	12.7 CM	15.2 CM
10 cm	1.0 m	0.8 m	0.7 m
15.2 cm	0.7 m	0.5 m	0.4 m
20.3 cm	0.5 m	0.4 m	0.3 m
25.4 cm	0.4 m'	0.3 m	0.3 m
30.5 cm	0.3 m	0.3 m	0.2 m

ESTIMATED BAGS OF GEM FOR BACKFILLING AROUND GROUND RODS TO A DENSITY OF 63.5 LB/FT ³ (1,017 KG/M³)

DIAMETER OF HOLE		FT	m	ft	m	ft	m	ft	m	ft	m	ft	m
INCHES	CM	5	1,5	6	1,8	8	2,4	10	3	15	4,6	20	6,1
4	10,2	2		2		2		3		4		5	
6	15,2	3		3		4		5		8		10	
8	20,3	5		6		8		9		14		18	
10	25,4	7		9		12		14		21		28	
12	30,5	10		12		16		20		30		40	

QUICKFILL NO-MIX GROUND ENHANCEMENT



QUICKFILL NO-MIX GROUND ENHANCEMENT

PART NUMBER	PACKAGING	COMPLIES WITH
QF25	11.3kg Bag	IEC® 62561-7

SUGGESTED SPECIFICATIONS

PARAMETER	VALUES	TEST METHOD
Resistivity	"<25 Ω-cm for powder <15 Ω-cm when mixed with 40% water by weight"	4-Electrode Method as per ASTM G57-06
Density	993kg/m3	

EARTHING ACCESSORIES

QUICKFILL NO-MIX GROUND ENHANCEMENT

ESTIMATED BAGS QF25 FOR BACKFILLING AROUND GROUND RODS

DIAMETER OF HOLE	DEPTH					
	1.5 M	1.8 M	2.4 M	3.0 M	4.6 M	6.1 M
10 cm	1,1	1,3	1,8	2,2	3,3	4,4
15 cm	2,5	3	3,9	4,9	7,4	9,8
20 cm	4,4	5,2	7	8,7	13	17,4
25 cm	6,8	8,2	10,9	13,6	20,3	27,1
30 cm	9,8	11,7	15,6	19,5	29,3	39

ESTIMATED LINEAR MEASUREMENT OF GROUND CONDUCTOR COVERING WITH EACH BAG OF QF25

TRENCH WIDTH	TOTAL THICKNESS OF GEM		
	10 CM	13 CM	15 CM
10 cm	1.1 m	0.88 m	0.73 m
15 cm	0.73 m	0.58 m	0.49 m
20 cm	0.55 m	0.43 m	0.37 m
25 cm	0.43 m	0.34 m	0.27 m
30 cm	0.37 m	0.27 m	0.24 m

BENTONITE EARTH ENHANCEMENT

PART NUMBER	COLOUR	BAG SIZE	DESCIPTION
PPI-Earthtec B	Grey	20kg	50% Bentonite, 50% Gypsum Compound
PPI-Earthtec C	Grey	20kg	80% Bentonite, 20% Gypsum Compound

EARTHING ACCESSORIES

DESCRIPTION

FEATURES	ADVANTAGE	
NON-TOXIC, NON-CORROSIVE	STABLE, HIHG CONDUCTIVITY PROVIDING LONG TERM LOW GRADE GROUND RESISTANCE.	
Dry Mix Yield	0.0176m3	57 bags to the m3
Wet Mix	0.030m3	33 bags to the m3

GROUND ROD INSPECTION PITS



GROUND ROD INSPECTION PITS

PART NUMBER	DESCRIPTION	DIMENSIONS H X L XW	RATING/ CLASS	
MATERIAL: POLYPROPYLENE				
PPI-PIT03	Polyolefin High Impact Pit	216 x 241 x 207 mm	5000kg (not static)	1.3kg
PPI-BPEP1	Polyepropylene Pit	308 x 308 x 314 mm	5000kg (not static)	2.5kg
PPI-BLP-03	Polyolefin High Impact Pit	250.5 x 220.6 x 216 mm	5000kg (not static)	1.3kg

GROUND ROD INSPECTION PITS

PART NUMBER	DESCRIPTION	DIMENSIONS H X L XW	RATING/ CLASS	
MATERIAL: POLYPROPYLENE				
PIP400C	15T (15T FRP LID +15T THROUGH CHAMBER)	300 X 300 X 300	15 Ton, Class C	16kg
PIP400D	24T (24T FRP LID +24T THROUGH CHAMBER)	300 X 300 X 300	24 Ton, Class D	21kg
PIP400DM	24T (24 METAL LID +24T THROUGH CHAMBER)	300 X 300 X 300	24 Ton, Class D	
PIP400CLID	15T FRP LID		15 Ton, Class C	10kg
PIP400DLID	24T FRP LID		24 Ton, Class D	13kg
PIP400DMLID	24T METAL LID		24 Ton, Class D	

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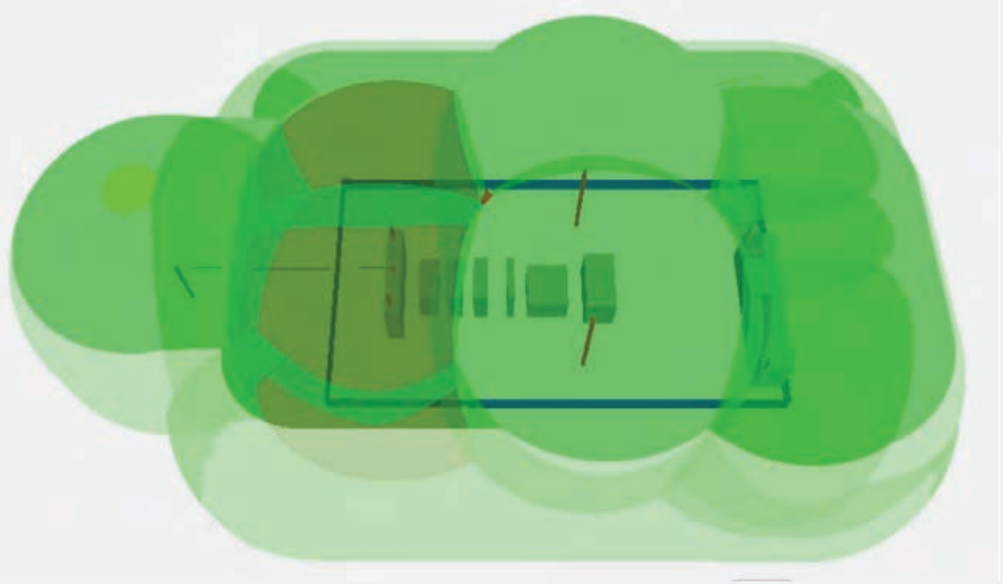
EARTHING ACCESSORIES

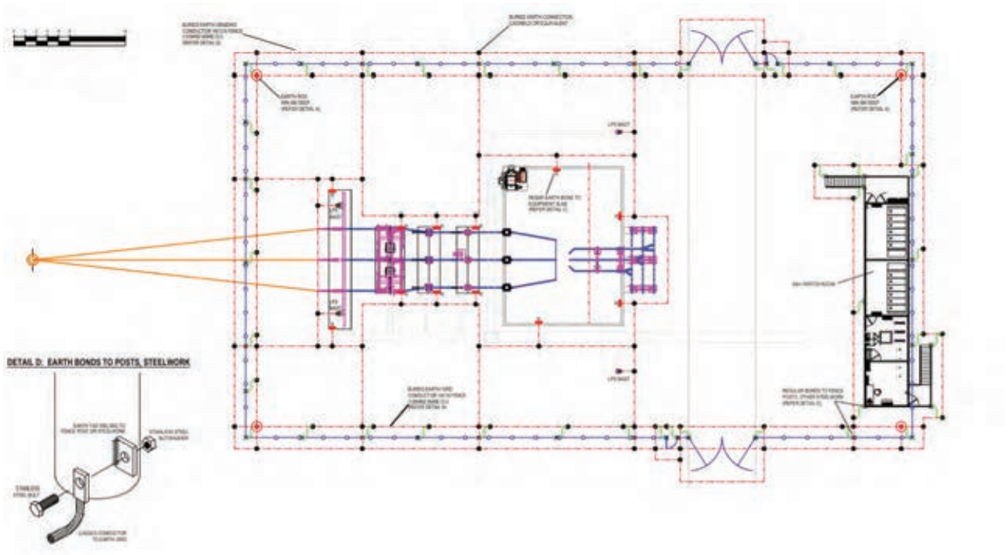
GROUND ROD INSPECTION PITS (CONT.)



GROUND ROD INSPECTION PITS

PART NUMBER	DESCRIPTION	DIMENSIONS H X L XW	RATING/ CLASS	
MATERIAL: POLYPROPYLENE				
PIP400CCB	15T (15T FRP LID +15T EARTHSEAL CHAMBER)	300 X 300 X 300	15 Ton, Class C	16.5kg
PIP400DCB	24T (24T FRP LID +24T EARTHSEAL CHAMBER)	300 X 300 X 300	24 Ton, Class D	21.5kg
PIP400DMCB	24T (24T METAL LID +24T EARTHSEAL CHAMBER)	300 X 300 X 300	24 Ton, Class D	
PIP400SEAL	EARTH SEAL KIT			
PIP400CRISER	15T OPTIONAL RISER	300 X 300 X 300	15 Ton, Class C	
PIP400DRISER	24T OPTIONAL RISER	300 X 300 X 300	24 Ton, Class D	





Earthing system design

The team at PPI use the industry leading software package CDEGS (Current Distribution, Electromagnetic Fields, Grounding and Soil Structure Analysis) to model soil resistivity field test results and perform earth grid design calculations for high-voltage substations, switchyards and power generating plants. This allows us to effectively handle fault currents while limiting step-and-touch potentials to safe levels.

Recent trends in HV earthing design have shown that earth grid resistance is NOT a guarantee of safety (e.g. withdrawal of less than one Ohm requirement from the 2007 edition of AS3000 Wiring Rules).

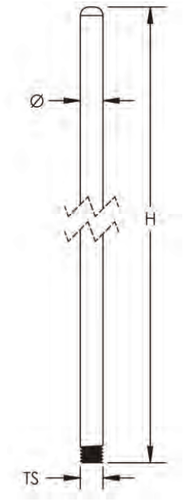
Fault level increases, reduced substation sizes, higher density, voltage rises and more interaction between power systems and industrial installations mean there is now an increased reliance on HV earthing design to produce safe touch potentials in the event of an HV fault condition.

Increasing private ownership of HV assets, widespread use of conductive structures in earthing systems and a legacy of older non-compliant earthing mean it is crucial to engage an experienced, qualified earthing designer for your project.

RELEVANT EARTHING-RELATED STANDARDS AND CODES

- AS/NZS 3000 Electrical installations (Australian & New Zealand Wiring Rules: Section 5)
- ENA EG-0 Power System Earthing Guide, Part 1: Management Principles (including Argon)
- ENA EG-1 Substation Earthing Guide
- AS/NZS 2067 Substations and high voltage installations exceeding 1 kV a.c. (Section 8)
- AS/NZS 60479.1 Effects of current on human beings and livestock, Part 1: General aspects
- AS/NZS 4853 Electrical hazards on metallic pipelines
- AS/NZS 7000 Overhead line design – Detailed procedures (Section 10 & Appendices E & U)
- AS/NZS 3007 Electrical equipment in mines and quarries – Surface installations and associated processing plant (Appendix F)
- ENA C(b)1 Guidelines for design and maintenance of overhead distribution and transmission lines (Section 11 & Appendix H)
- AS/NZS 1768 Lightning protection (Section 4 & Appendix C)
- IEEE Std 80 IEEE Guide for Safety in AC Substation Grounding

CONVENTIONAL AIR TERMINAL METRIC THREAD

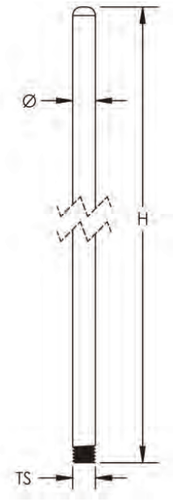


MATERIAL: ALUMINIUM

PART #	THREAD SIZE	DIA. Ø	HEIGHT	UNIT WEIGHT	COMPLIES WITH
PPI-AR0510A	M10	11.1 mm	0.5 m	0.190 kg	IEC® EN 62561-2
PPI-AR0514A	5/8"	14 mm	0.5 m	0.250 kg	IEC® EN 62561-2
PPI-AR0515A	M16	15.9 mm	0.5 m	0.265 kg	IEC® EN 62561-2
PPI-AR1010A	M10	11.1 mm	1.0 m	0.385 kg	IEC® EN 62561-2
PPI-AR1014A	5/8"	14 mm	1.0m	0.500 kg	IEC® EN 62561-2
PPI-AR1015A	M16	15.9 mm	1.0 m	0.530 kg	IEC® EN 62561-2
PPI-AR2014A	5/8"	14mm	2.0 m	1.010 kg	IEC® EN 62561-2

SYSTEM 2000 LPS

CONVENTIONAL AIR TERMINAL METRIC THREAD



MATERIAL: COPPER

PART #	THREAD SIZE	DIA. Ø	HEIGHT	UNIT WEIGHT	COMPLIES WITH
PPI-AR0510C	M10	11.1 mm	0.5 m	0.480 kg	IEC® EN 62561-2
PPI-AR0514C	5/8"	14 mm	0.5 m	0.690 kg	IEC® EN 62561-2
PPI-AR0515C	M16	15.9 mm	0.5 m	0.750 kg	IEC® EN 62561-2
PPI-AR1010C	M10	11.1 mm	1.0 m	1.100 kg	IEC® EN 62561-2
PPI-AR1014C	5/8"	14 mm	1.0 m	1.310 kg	IEC® EN 62561-2
PPI-AR1015C	M16	15.9 mm	1.0 m	1.510 kg	IEC® EN 62561-2
PPI-AR1514C	5/8"	14 mm	1.5 m	2.080 kg	IEC® EN 62561-2
PPI-AR2014C	5/8"	14 mm	2.0 m	2.910 kg	IEC® EN 62561-2
PPI-AR2015C	M16	15.9 mm	2.0 m	3.000 kg	IEC® EN 62561-2

CONVENTIONAL AIR TERMINAL BASE METRIC THREAD TO IEC® EN 62561-1

MATERIAL: ALUMINIUM

PART #	THREAD SIZE	TAPE SIZE	DEPTH	HEIGHT	WIDTH	UNIT WEIGHT
PPI-ARBS253A	M10 & M16	25 x 3 mm, 26 x 2 mm	57.4 mm	40 mm	60 mm	0.094 kg
PPI-ARB10A	M10	25 x 3 mm	100 mm	25 mm	100 mm	0.159 kg
PPI-ARB14A	5/8"	25 x 3 mm	100 mm	25 mm	100 mm	0.159 kg
PPI-ARB15A	M16	25 x 3 mm	100 mm	25 mm	100 mm	0.159 kg

MATERIAL: COPPER

PART #	THREAD SIZE	TAPE SIZE	DEPTH	HEIGHT	WIDTH	UNIT WEIGHT
PPI-ARBS253C	M10 & M16	25 x 3 mm, 26 x 2 mm	57.4 mm	40 mm	60 mm	0.134 kg
PPI-ARB14C	5/8"	25 x 3 mm	100 mm	25 mm	100 mm	0.499 kg

MATERIAL: BRASS

PART #	THREAD SIZE	TAPE SIZE	DEPTH	HEIGHT	WIDTH	UNIT WEIGHT
PPI-ARB10B	M10	25 x 3 mm	100 mm	25 mm	100 mm	0.499 kg
PPI-ARB15B	M16	25 x 3 mm	100mm	25mm	100mm	0.499kg

SYSTEM 2000 LPS

AIR TERMINAL CANTILEVER, METRIC THREAD



MATERIAL: ALUMINIUM

PART #	THREAD SIZE	TAPE SIZE	DEPTH	HEIGHT	WIDTH	UNIT WEIGHT
PPI-ARC14A	5/8"	25 x 3 mm		71	36	
PPI-RTCC14A	5/8"	25 x 3 mm		71	36	

MATERIAL: COPPER

PART #	THREAD SIZE	TAPE SIZE	DEPTH	HEIGHT	WIDTH	UNIT WEIGHT
PPI-ARC14C	M16	25 x 3 mm, 30 x 2 mm		71	36	0.231 kg
PPI-RTCC14C			92.5	30	110	0.898 kg

MATERIAL: BRASS

PART #	THREAD SIZE	TAPE SIZE	DEPTH	HEIGHT	WIDTH	UNIT WEIGHT
PPI-ARC16B	M16	25 x 3 mm, 30 x 2 mm		71	36	0.231kg
PPI-RTCC16B	M16	25 x 3 mm, 30 x 2 mm	92.5	30	110	0.898kg

CONVENTIONAL TAPE CONDUCTOR



MATERIAL: ALUMINIUM — FINISH: BARE

PART #	WIDTH	THICKNESS	LENGTH	UNIT WEIGHT	COMPLIES WITH
PPI-CTC253A	25.0 mm	3.0 mm	50.0 m	0.210 kg	BS2898-1350 / IEC 62561-2

MATERIAL: COPPER — FINISH: BARE

PART #	WIDTH	THICKNESS	LENGTH	UNIT WEIGHT	COMPLIES WITH
PPI-CTC253C	25.0 mm	3.0 mm	25.0 m	0.671 kg	BS EN 13601 /IEC® EN62561-2

MATERIAL: COPPER — FINISH: TINNED

PART #	WIDTH	THICKNESS	LENGTH	UNIT WEIGHT	COMPLIES WITH
PPI-CTC253TC	25.0 mm	3.0 mm	30.0 m	0.670 kg	BS EN 13601 /IEC® EN62561-2

SYSTEM 2000 LPS

CONVENTIONAL TAPE FASTENERS

MATERIAL: ALUMINIUM

PART #	TAPE SIZE	DEPTH	WIDTH	HOLE SIZE	UNIT WEIGHT
PPI-DCS253A	25 x 3 mm	17 mm	63.4 mm	7 mm	0.030 kg
PPI-DSS253A	25 x 3 mm	15 mm	65 mm	7 mm	0.010 kg
PPI-DC253A	25 x 3 mm	20 mm	52 mm	7 mm	0.041 kg

MATERIAL: COPPER

PART #	TAPE SIZE	DEPTH	WIDTH	HOLE SIZE	UNIT WEIGHT
PPI-DCS253C	25 x 3 mm	17 mm	63.4 mm	7 mm	0.034 kg
PPI-DSS253C	25 x 3 mm	15 mm	65 mm	7 mm	0.049 kg
PPI-DC253C	25 x 3 mm	20 mm	50 mm	7 mm	0.068 kg

MATERIAL: STAINLESS STEEL 316 (EN 1.4401)

PART #	TAPE SIZE	DEPTH	WIDTH	HOLE SIZE	UNIT WEIGHT
PPI-DCS253S	25 x 3 mm	17 mm	63.4 mm	7 mm	0.030 kg
PPI-TAPS302	30 x 2 mm	12.25 mm	42 mm	4.25 mm	0.002 kg

MATERIAL: POLYCARBONATE — TEMPERATURE: -20 TO 120 °C

PART #	CONDUCTOR SIZE	DEPTH	WIDTH	HOLE SIZE	UNIT WEIGHT
PPI-DC253N-GR	25 x 3 mm	18 mm	38 mm	6.5 mm	0.008 kg
PPI-PDCUC	25 x 3 mm, 26 x 2 mm, 8mm² Solid, 8 mm² Stranded.	20 mm	35.9 mm	6.8 mm	0.007 kg

SQUARE TAPE CLAMPS





MATERIAL: ALUMINIUM

PART #	TAPE SIZE	DEPTH	WIDTH	UNIT WEIGHT
PPI-SCS253A	25 x 3 mm, 26 x 2 mm	60 mm	64 mm	0.058 kg
PPI-SC253A	25 x 3 mm	54 mm	54 mm	0.599 kg

MATERIAL: COPPER

PART #	TAPE SIZE	DEPTH	WIDTH	UNIT WEIGHT
PPI-SCS253C	25 x 3 mm, 26 x 2 mm	60 mm	64 mm	0.100 kg
PPI-SC253C	25 x 3 mm	54 mm	54 mm	0.200 kg

MATERIAL: COPPER – FINISH: TINNED

PART #	TAPE SIZE	DEPTH	WIDTH	UNIT WEIGHT
PPI-SC253TC	25 x 3 mm	54 mm	54 mm	0.201 kg

MATERIAL: STAINLESS STEEL 304 (EN 1.4301)

PART #	TAPE SIZE	DEPTH	WIDTH	UNIT WEIGHT
PPI-SCS253S	25 x 3 mm, 26 x 2 mm	60 mm	64 mm	0.092 kg
PPI-SC253S	25 x 3 mm	54 mm	54 mm	0.192 kg

SYSTEM 2000 LPS

BI-METALLIC TAPE CONNECTOR

MATERIAL: ALUMINUM; COPPER

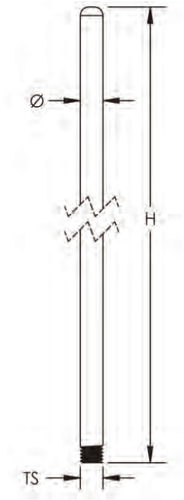
PART #	TAPE SIZE	DEPTH	WIDTH	UNIT WEIGHT	COMPLIES WITH
PPI-BMC253	25 x 3 mm	30 mm	80 mm	0.191 kg	IEC® EN 62561-1

NON-PENETRATING KLIP-LOK ROOF STAND OFF

MATERIAL: STAINLESS STEEL 18-8 (EN 1.4305)

PART #	DEPTH	HEIGHT	WIDTH	A	THREAD SIZE	UNIT WEIGHT
LPS815	38.1 mm	50.8 mm	46.23 mm	3.18 – 38.10 mm	M6	0.109 kg

CONVENTIONAL AIR TERMINAL, IMPERIAL THREAD



MATERIAL: ALUMINIUM

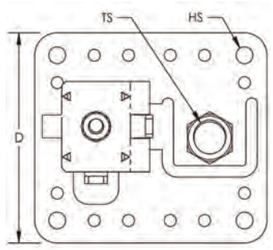
PART #	Ø	TIP	H	TS	WEIGHT
PPI-LPA222ST	12.7 mm	Blunt	304.80 mm	1/2 UNC	0.10 kg
PPI-LPA225ST	12.7 mm	Blunt	609.60 mm	1/2 UNC	0.21 kg
PPI-LPA242ST	15.9 mm	Blunt	304.80 mm	5/8 UNC	0.16 kg
PPI-LPA245ST	15.9 mm	Blunt	609.60 mm	5/8 UNC	0.33 kg

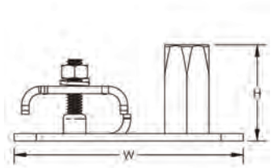
MATERIAL: COPPER — FINISH: BARE

PART #	Ø	TIP	H	TS	WEIGHT
PPI-LPC202BST	9.5 mm	Blunt	304.80 mm	3/8 UNC	0.19 kg
PPI-LPC205BST	9.5 mm	Blunt	609.60 mm	3/8 UNC	0.37 kg
PPI-LPC222BST	12.7 mm	Blunt	304.80 mm	1/2 UNC	0.33 kg
PPI-LPC225BST	12.7 mm	Blunt	609.60 mm	1/2 UNC	0.66 kg
PPI-LPC242BST	15.9 mm	Blunt	304.80 mm	5/8 UNC	0.52 kg
PPI-LPC245BST	15.9 mm	Blunt	609.60 mm	5/8 UNC	0.78 kg

SYSTEM 2000 LPS

CONVENTIONAL AIR TERMINAL BASE, IMPERIAL THREAD





MATERIAL: ALUMINIUM

PART #	THREAD SIZE	TYPE	HOLE SIZE	DEPTH	HEIGHT	WIDTH
PPI-LPA30212	1/2 UNC	Flat	7.15 mm	88.9 mm	34.93 mm	101.6 mm
PPI-LPA30258	5/8 UNC	Flat	7.15 mm	88.9 mm	34.93 mm	101.6 mm

MATERIAL: BRONZE; BRASS

PART #	THREAD SIZE	TYPE	HOLE SIZE	DEPTH	HEIGHT	WIDTH
PPI-LPC30238	3/8 UNC	Flat	7.15 mm	88.9 mm	34.93 mm	101.6 mm
PPI-LPC30238V	3/8 UNC	Vertical	7.15 mm	88.9 mm	34.93 mm	101.6 mm
PPI-LPC30212	1/2 UNC	Flat	7.15 mm	88.9 mm	34.93 mm	101.6 mm
PPI-LPC30212V	1/2 UNC	Vertical	7.15 mm	88.9 mm	34.93 mm	101.6 mm
PPI-LPC30258	5/8 UNC	Flat	7.15 mm	88.9 mm	34.93 mm	101.6 mm

CONVENTIONAL SMOOTHWEAVE CONDUCTOR

MATERIAL: ALUMINIUM

PART #	CONDUCTOR TYPE	Ø	LENGTH	CSA	UNIT WEIGHT	CERTIFICATIONS
PPI-LPA100550	Smooth Weave	12.7 mm	152.4 M	50 mm2	0.046 kg	cULus
PPI-LPA102500	Smooth Weave	13.5 mm	152.4 M	68 mm2	0.052 kg	UL

SYSTEM 2000 LPS

CONVENTIONAL SMOOTHWEAVE CONDUCTOR

MATERIAL: COPPER

PART #	CONDUCTOR TYPE	Ø	LENGTH	CSA	UNIT WEIGHT	CERTIFICATIONS
PPI-LPC122250	Smooth Weave	10.7 mm	76.2 M	33.2 mm2	0.087 kg	UL
PPI-LPC126R250	Ropelay	11.9 mm	76.2 M	58.3 mm2	0.172 kg	UL
PPI-RC-EC-8	Solid	8 mm	100 M	50.2 mm3	0.449 kg	IEC® EN 62561-2

MATERIAL: COPPER — FINISH: TINNED

PART #	CONDUCTOR TYPE	Ø	LENGTH	CSA	UNIT WEIGHT	CERTIFICATIONS
PPI-LPC120L250	Smooth Weave	9.1 mm	76.2 M	30.1 mm2	0.087 kg	UL

CONVENTIONAL SMOOTHWEAVE CABLE FASTENERS



MATERIAL: ALUMINIUM

PART #	DEPTH	WIDTH	HOLE SIZE	UNIT WEIGHT	CERTIFICATIONS
PPI-LPA803	12.7 mm	25.003 mm	4.76 mm	0.009 kg	UL
PPI-LPA810	61.98 mm	74.422 mm	6.00 mm	0.018 kg	

MATERIAL: COPPER

PART #	DEPTH	WIDTH	HOLE SIZE	UNIT WEIGHT	CERTIFICATIONS
PPI-LPC803	12.7 mm	25.003 mm	4.76 mm	0.014 kg	UL
PPI-LPC810	61.98 mm	74.422 mm	6.00 mm	0.032 kg	

MATERIAL: COPPER — FINISH: TINNED

PART #	DEPTH	WIDTH	HOLE SIZE	UNIT WEIGHT	CERTIFICATIONS
PPI-LPC803L	12.7 mm	25.003 mm	4.76 mm	0.015 kg	UL
PPI-LPC810L	61.98 mm	74.422 mm	6.00 mm	0.032 kg	

MATERIAL: NYLON SNAP CLOSE

PART #	CONDUCTOR SIZE	HEIGHT	WIDTH	HOLE SIZE	UNIT WEIGHT
PPI-SRL23N8	8 mm Solid	25 mm	23 mm	6.5 mm	0.009 kg
PPI-SRL-23-N10	10 mm Solid	25 mm	23 mm	6.5 mm	0.009 kg

SYSTEM 2000 LPS

STAMPED BOLTED PARALLEL CABLE CONNECTOR



MATERIAL: ALUMINIUM

PART #	DEPTH	HEIGHT	WIDTH	UNIT WEIGHT
LPA502	38.1 mm	38.1 mm	45.2 mm	0.039 kg

MATERIAL: COPPER

PART #	DEPTH	HEIGHT	WIDTH	UNIT WEIGHT
LPC502	38.1 mm	38.1 mm	45.2 mm	0.087 kg

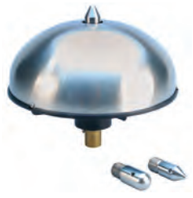
MATERIAL: COPPER — FINISH: TINNED

PART #	DEPTH	HEIGHT	WIDTH	UNIT WEIGHT
LPC502L	38.1 mm	38.1 mm	45.2 mm	0.087 kg

MATERIAL: COPPER; ALUMINUM; STAINLESS STEEL 304 (EN 1.4301)

PART #	DEPTH	HEIGHT	WIDTH	UNIT WEIGHT
LPC502A	38.1 mm	38.1 mm	45.2 mm	0.088 kg

SYSTEM 3000



AIR TERMINALS

PART #	WEIGHT
D/SMKIVSS	2.6 kg

AIR TERMINALS

PART #	INSTALLATION HEIGHT	WEIGHT
INTMKIVSS	20 m Max	2.058 kg

SYSTEM 3000



FRP MASTS

PART #	L	T	OD	COLOUR	WEIGHT
FRP2MBLACK	2.0 m	4 mm	68 mm	Black	5.0 kg
FRP4.6MBLACK	4.6 m	4 mm	68 mm	Black	11.5 kg

SYSTEM 3000 LPS

SYSTEM 3000 ALUMINIUM MASTS



MATERIAL: ALUMINIUM

PART #	L	T	OD	WEIGHT
ALUM3M	3 m	4 mm	69.9 mm	8.25 kg
ALUM4M	4 m	4 mm	69.9 mm	11.00 kg
ALUM5M	5 m	4 mm	69.9 mm	13.00 kg
ALUM6M	6 m	4 mm	69.9 mm	16.00 kg

SYSTEM 3000 ALUMINIUM MAST WITH BASE



MATERIAL: ALUMINIUM

PART #	H	PLATE SIZE	Ø	HS	A	WEIGHT
MBMAST3M	3 m	229 x 229mm	69.9 mm	12.7 mm	178 mm	8.618 kg
MBMAST4M	4 m	229 x 229mm	69.9 mm	12.7 mm	178 mm	10.668 kg
MBMAST5M	5 m	229 x 229mm	69.9 mm	12.7 mm	178 mm	13.609 kg
MBMAST6M	6 m	229 x 229mm	69.9 mm	12.7 mm	178 mm	15.195 kg

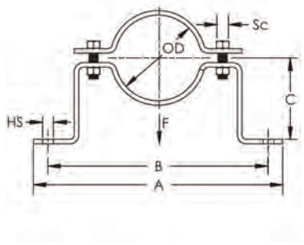
SYSTEM 3000 MAST COUPLING



MATERIAL: ALUMINUM

PART #	H	L	W	HS	WEIGHT
ILCOUPL	113 mm	475 mm	137 mm	10 mm	2.25 kg

SYSTEM 3000 MAST BRACKET



ALUMINIUM, STAINLESS

PART #	Ø	TL	W X H	D	WEIGHT
UBOLT	78.5mm	89mm	128 x 51mm	195 mm	0.81kg

ALUMINIUM, STAINLESS

PART #	OD	HS	A	B	C	STATIC LOAD F
70000250S4	76.1 mm	11 mm	304.8 mm	266.7 mm	81 mm	1,820 N

SYSTEM 3000 LPS

SYSTEM 3000 GUY KITS



MATERIAL: FIBREGLASS, POLYVINYLCHLORIDE

PART #	MAST HEIGHT	WEIGHT
GUYKIT4M/GRIP	4 m	0.4kg
GUYKIT7M/GRIP	7 m	0.7kg
GUYKIT10M/GRIP	10 m	1.0kg
GUYKIT12M/GRIP	12 m	1.2kg
GUYKIT17M/GRIP	17 m	1.7kg

GUY RING



MATERIAL: ALUMINIUM

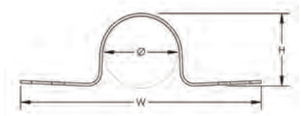
PART #	WEIGHT
GUYRING	0.118kg

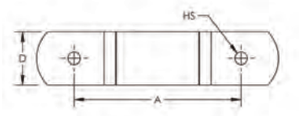
SYSTEM 3000 DOWNCONDUCTOR

ERICORE INSULATED CABLE

PART #	L	SPECS	CSA	Ø
ERICORE	1 m	0.75 nF, 37nH, 0.5mΩ/m (Rdc), 6mΩ/m (Rimp)	50 mm²	36 mm
ERICORE/CUT/SHORT	1 – 25 m			
ERICORE/CUT/MEDIUM	26 – 90 m			
ERICORE/CUT/LONG	91 – 200 m			
ERICORE/CUT/XLONG	201 – 250 m			

SYSTEM 3000 DOWNCONDUCTOR SADDLES





ERICORE CONDUCTOR SADDLE

PART #	W	D	HS	Ø
CONSADE25	114.5mm	25.5mm	6mm	37mm

ERICORE TERMINATION



UPPER TERMINATIONS (FACTORY FITTED)

PART #	TERMINATION LOCATION
ERICORE/TERM/IN/SHORT	Inside Drum
ERICORE/TERM/OUT/SHORT	Outside Drum

LOWER TERMINATION

PART #
ERICORE/LTKIT/A

LIGHTNING EVENT COUNTERS

ELECTRONIC

PART #	TRIP THRESHOLD	D	H	W	TEMP.	WEIGHT
LECV	1 kA 8/20 µs – 100 kA 10/350 µs	42 mm	141 mm	91 mm	-40 to 80 °C	0.36 kg

MECHANICAL

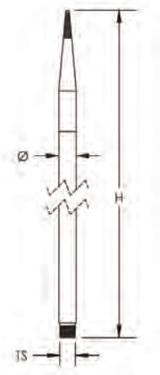
PART #	TRIP THRESHOLD	D	H	W	TEMP.	WEIGHT
LECIV	2 kA 8/20 µs	65 mm	110 mm	80 mm	-40 to 50 °C	0.52 kg

REMOTE MONITORED

PART #	TRIP THRESHOLD	D	H	W	TEMP.	WEIGHT
LECIVR	2 kA 8/20 µs	65 mm	110 mm	80 mm	-40 to 50 °C	0.52 kg

Comes with 25m Fibre Optic Lead to Din-rail Mounted Monitoring device, with relay closure output.

EARLY STREAMER EMISSION TERMINAL



MATERIAL: STAINLESS STEEL 304L (EN 1.4306)

PART #	ΔT	TEMP.	Ø	H	TS	WEIGHT
SI25I	25 µs	120 °C Max	28 mm	684.6 mm	MF25	1.53 kg
SI40I	40 µs	120 °C Max	28 mm	684.6 mm	MF25	1.36 kg
SI60I	60 µs	120 °C Max	28 mm	684.6 mm	MF25	1.45 kg

MATERIAL: STAINLESS STEEL 316L (EN 1.4404)

PART #	ΔT	TEMP.	Ø	H	TS	WEIGHT
SI60I316	60 µs	120 °C Max	28 mm	684.6 mm	MF25	1.45 kg

COMPLIES WITH: NF C17-102:2011; NP 4426:2013; UNE 21186:2011

SYSTEM 1000 LPS

ESE MASTS

MATERIAL: STAINLESS STEEL 304L (EN 1.4306)

PART #	PRODUCT	TS	L	T	OD	HARDWARE	WEIGHT
SIM28A2	Upper Mast Section	M25	2,000 mm	2.00 mm	28.0 mm	No	2.30 kg
SIM33B2	Mid Mast Section	M25	2,000 mm	2.50 mm	33.0 mm	Yes	3.50 kg
SIM33B3	Mid Mast Section	M25	3,000 mm	2.50 mm	33.0 mm	Yes	5.30 kg
SIM40C2	Lower Mast Section	M25	2,000 mm	2.50 mm	40.0 mm	Yes	4.00 kg
SIM40C3	Lower Mast Section	M25	3,000 mm	2.50 mm	40.0 mm	Yes	6.05 kg

MATERIAL: STAINLESS STEEL 316L (EN 1.4404)

PART #	PRODUCT	TS	L	T	OD	HARDWARE	WEIGHT
SIM28A2316	Upper Mast Section	M25	2,000 mm	2.00 mm	28.0 mm	No	2.30 kg
SIM33B2316	Mid Mast Section	M25	2,000 mm	2.50 mm	33.0 mm	Yes	3.50 kg
SIM33B3316	Mid Mast Section	M25	3,000 mm	2.50 mm	33.0 mm	Yes	5.30 kg
SIM40C2316	Lower Mast Section	M25	2,000 mm	3.55 mm	42.4 mm	Yes	4.00 kg
SIM40C3316	Lower Mast Section	M25	3,000 mm	3.55 mm	42.4 mm	Yes	6.05 kg

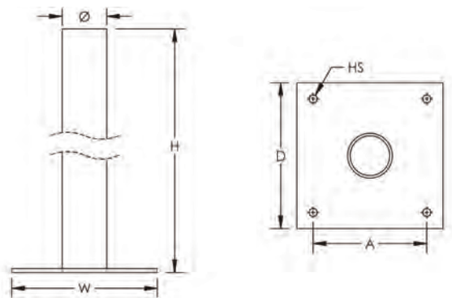
ESE MAST BASE

MATERIAL: STAINLESS STEEL 304L (EN 1.4306)

PART #	H	W	D	Ø	HS	A	WEIGHT
SIMBASE2840	153 mm	200 mm	200 mm	33 mm	11 mm	170 mm	1.232 kg

MATERIAL: STAINLESS STEEL 316L (EN 1.4404)

PART #	H	W	D	Ø	HS	A	WEIGHT
SIMBASE2840316	153 mm	200 mm	200 mm	33 mm	11 mm	170 mm	1.232 kg

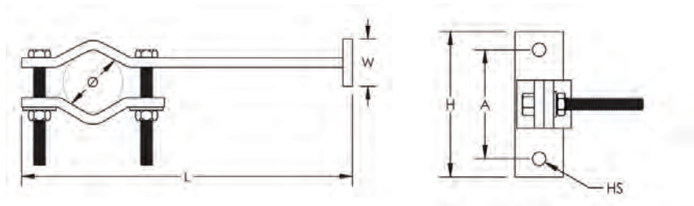


SYSTEM 1000 LPS

ESE MAST BRACKET

MATERIAL: STEEL – FINISH: HOT-DIP GALVANIZED

PART #	Ø	H	L	W	HS	A	WEIGHT
ALOF1GS	28.0 – 69.9 mm	120 mm	280 mm	40 mm	11 mm	90 mm	1.5 kg



SELECTION AND APPLICATION GUIDE FOR AC POWER SYSTEMS

RECOMMENDED SURGE RATING (8/20MS)

ANSI/IEEE C62.41		
ICE 61643 Test Class	I	
VDE Classification	A	
Exposure	Point of Entry Highly Exposed or Critically Important Sites	Point of Entry Exposed or Rural Sites
HIGH Ng >2	100kA	70kA
MED. Ng 0.5-2	65kA	40kA
LOW Ng <0.5	65kA	40kA

RECOMMENDED PRODUCTS

PRODUCT SERIES	SRF-N SERIES
	DTX 120, 240; TDX 300, 400
	SES40, SES80, SES160, SES320, SES360, SES480
	DT1 SERIES

SELECTION AND APPLICATION GUIDE FOR AC POWER SYSTEMS

RECOMMENDED SURGE RATING (8/20MS)

CAT C	CAT B	CAT A
I, II	II	III
B	C	D
Point of Entry Inner City Sites	Sub Circuits or Near to Point of Entry	Distributed Circuits, Power Outlets, Circuits Remote from point of Entry
40kA	20kA	10kA
20kA	20kA	5kA
15kA	5kA	3kA

RECOMMENDED PRODUCTS

SRF-N SERIES		
DTX 120, 240; TDX 300, 400		
SES40, SES80, SES160, SES320, SES360, SES480		
DT1 SERIES		
EDT2 SERIES		
	TSF SERIES	
		TDS1301 SERIES

SURGE PROTECTION

INSTALLATION LOCATION		CONNECTION TYPE	COMMENT	PART #	BRIEF SPEC	BENEFITS
Main Switch Board	3-Phase	Parallel-Connected, Shunt Diverter	Primary protection device. Large facilities or small facilities where risk is high.	DTX120F400TT	3-Phase, Imax=120kA, Iimp=17.5kA, Up=1200V@20 kA, Uc=300V, IEC Class I, Filtering -29 dB @ 100 kHz	Modular, IEC Class I, Class II, Panel or outside mount, very high 50Hz withstand, indication for power/phase loss and SPD health, RS-485 interface, 10-Year warranty
	3-Phase		Primary protection device. Small facilities where risk is high and there is limited space in SWB.	DT1M27530R	3-Phase, Imax=65kA, Iimp=25kA, Up=1550V@ 3kA Uc=275V, Ut=442V, IEC Class I	IEC Class I, Class II, modular, very large surge current rating in small enclosure, alarm contacts, locking modules, universally coordinates with any secondary device in small switchboard.
	1-Phase			DT1M27510R	1-Phase, Imax=65kA, Iimp=25kA, Up=1550V@ 3kA Uc=275V, Ut=442V, IEC Class I	IEC Class I, Class II, modular, very large surge current rating in small enclosure, alarm contacts, locking modules, universally coordinates with any secondary device in small switchboard.
	3-Phase		Primary protection device. Small facilities where risk is high and there is limited space in SWB.	EDT230030R	3-Phase, Imax=50kA, In=20kA, Up=1650V, Uc=300V, Ut=442V, IEC Class II	TD Technology, Tested to IEC61643 Class II, UL1449-Ed 4, Modular, Locking Modules
	1-Phase			EDT230010R	1-Phase, Imax=50kA, In=20kA, Up=1650V, Uc=300V, Ut=442V, IEC Class II	TD Technology, Tested to IEC61643 Class II, UL1449-Ed 4, Modular, Locking Modules
Distribution Board	3-Phase	Parallel-Connected, Shunt Diverter	Secondary protection device.	EDT230031R	3-Phase, Imax=50kA, In=20kA, Up=1650V, Uc=300V, Ut=442V, IEC Class II	TD Technology, Tested to IEC61643 Class II, UL1449-Ed 4, Modular, Locking Modules
	1-Phase			EDT230011R	1-Phase, Imax=50kA, In=20kA, Up=1650V, Uc=300V, Ut=442V, IEC Class II	TD Technology, Tested to IEC61643 Class II, UL1449-Ed 4, Modular, Locking Modules
Distribution Board or Sub-Panel	1-Phase, Surge Filter	Series-Connected Surge Filter	Single-phase power feeds to sensitive or critical equipment including security and fire panels where the load current is less than 20 Amps, 240VAC.	TSF20A240V	Imax=20kA/mode, Up=800V@ 3kA, Uc=275V, -50dB@100kHz, IEC Class II	Low Up, Attenuates lightning frequencies, UL1449-Ed 4, UL1283-Ed 5 EMI Filter, IEC61643-11 Class II, Modular
			Single-phase power feeds to sensitive or critical equipment including security and fire panels where the load current is less than 6 Amps, 240VAC.	TSF6A240V	Imax=20kA/mode, Up=800V@ 3kA, Uc=275V, -50dB@100kHz, IEC Class II	Low Up, Attenuates lightning frequencies, UL1449-Ed 4, UL1283-Ed 5 EMI Filter, IEC61643-11 Class II, Modular
			Single-phase power feeds to sensitive or critical equipment including security and fire panels where the load current is less than 6 Amps, 24V.	TSF6A24V	Imax=20kA/mode, Up=330V@ 3kA, Uc=30V, -50dB@100kHz, IEC Class II	Low Up, Attenuates lightning frequencies, UL1449-Ed 4, UL1283-Ed 5 EMI Filter, IEC61643-11 Class II, Modular

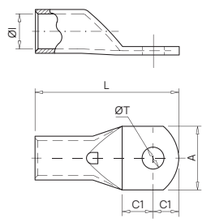
SURGE PROTECTION

INSTALLATION LOCATION		CONNECTION TYPE	COMMENT	PART #	BRIEF SPEC	BENEFITS
MSB or DB	1-Phase	Series-Connected Surge Filter	Power feeds to sensitive or critical equipment including security and fire panels where the load current is greater than 20 Amps.	SRF1xN	Imax=130kA, Iimp=50kA, Up=185-550 depending on model, Uc=310V, -40dB@100 kHz, IEC Class I+II	63A & 125A Models available. Extremely rugged product, Effective filtering of lightning frequencies, Very low Up, Uc & dv/dt, IEC61643-11 Class I+II, Modular
MSB or DB	3-Phase	Series-Connected Surge Filter	Power feeds to sensitive or critical equipment including security and fire panels where the load current is greater than 20 Amps.	SRF3xN	Imax=130kA, Iimp=50kA, Up=185-550 depending on model, Uc=310V, -40dB@100 kHz, IEC Class I+II	63A, 125A, 250A, 500A, 800A, 1250A, 2000A versions available. Extremely rugged product, Effective filtering of lightning frequencies, Very low Up, Uc & dv/dt, IEC61643-11 Class I+II, Modular
Solar Inverter	DC Power	Parallel-Connected, Shunt Diverter	Primary protection device. DC Input, 3-Wire.	PVT1xxR	Operating Voltage up to 1,500 VDC, IEC Class I + Class II	1100V DC & 1500V DC versions. Robust and compact, replaceable surge modules. Complies with UL1449 Edition 4 & EN 50539-11 Type 1, Type 2
Solar Inverter	DC Power	Parallel-Connected, Shunt Diverter	Secondary protection device. DC Input, 3-Wire.	PVT2xxR	Operating Voltage up to 1,500 VDC, IEC Class II	1100V DC & 150V DC versions. Robust and compact, replaceable surge modules. Complies with UL1449 Edition 4 & EN 50539-11 Type 1, Type 2
Data & control circuits	Single Pair	Series-Connected SPD	Signaling and Control Inputs and Outputs of PLC's, 4-20 mA Loops.	UTBxxSP	Imax=20kA, In=50 kA, Up=44V@3kA for UTB30SP, IL= 2A	5V, 15V, 30V, 60V, 110V Versions. High Imax, Low Up, compact and Modular
Data & control circuits	Dual Pair	Series-Connected SPD	Signaling and Control Inputs and Outputs of PLC's, 4-20 mA Loops.	UTBxxDP	Imax=20kA, In=50 kA, Up=44V@3kA for UTB30DP, IL= 0.8A	5V, 15V, 30V, 60V, 110V Versions. High Imax, Low Up and Modular, Vary compact
Data room, CCTV camera & multiple other locations	RJ45 connector	Series-Connected SPD	Local Area Networks (LAN) such as CAT5, CAT6 & POE, utilsed in security, communications/data and fire destection systems.	LANRJ45	Imax=10kA, Up=150V, Uc=50V, IL=1A, Iimp=1kA 10/350	High Iimp, Rugged metallic enclosure, Versatile (CAT5,CAT6,POE) in one product, Simple installation - earthed via DIN rail
Local Area Networks (LAN) or antenna systems, etc.	Coaxial Cables	Series-Connected SPD	Coaxial Cables	CSP1xxxxxx	Imax=20kA, 0 – 3 GHz, multiple connection options	450V & 1100V Versions, SMA, NB,F-Type, NBM-Type, NMF-Type; BNC-Type. High Imax, Rugged metallic enclosure, CE & UL Certified, Simple installation, Low insertion and return loss

Cable connection solutions

Copper connectors 84
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10101 T
Copper cable lug

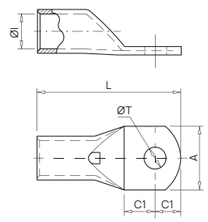
T cable lug manufactured from electrolytic copper tubing with a tin-plated surface finish to improve electrical contact. Incorporates inspection hole to check the correct cable positioning.

According to IEC 61238-1-1 standard.

Code	Ref.	Section (mm²)		Dimensions (mm) ØI	L	ØT	A	C1	C2	x 100	Bag	Box
010100	T-1,5/4	1.5	4	1.8	18.0	4.3	8.7	5.0	4.0	0.074	100	3000
010110	T-1,5/5		5		18.5	5.3	8.7	5.0	4.5	0.071	100	3000
010120	T-1,5/6		6		20.0	6.4	11.0	6.0	5.0	0.081	100	2000
010130	T-2,5/4	2.5	4	2.7	18.0	4.3	8.7	5.0	4.0	0.111	100	2000
010140	T-2,5/5		5		19.0	5.3	8.7	5.5	4.5	0.112	100	2000
010150	T-2,5/6		6		20.0	6.4	9.0	6.0	5.0	0.110	100	1800
010160	T-2,5/8		8		24.0	8.3	12.0	8.0	7.0	0.128	100	1800
010170	T-4/4	4	4	3.3	21.0	4.3	8.7	5.0	4.5	0.168	100	1600
010180	T-4/5		5		21.0	5.3	8.7	5.0	4.5	0.163	100	1600
010190	T-4/6		6		23.0	6.4	11.0	6.0	5.5	0.171	100	1600
010200	T-4/8		8		26.5	8.3	14.0	8.0	7.0	0.179	100	1200
010210	T-6/4	6	4	3.8	23.0	4.3	10.3	6.0	5.0	0.204	100	1600
010220	T-6/5		5		23.0	5.3	10.3	6.0	5.0	0.202	100	1500
010230	T-6/6		6		24.0	6.4	10.3	6.0	5.5	0.200	100	1500
010240	T-6/8		8		27.0	8.3	14.0	8.0	7.0	0.208	100	1300
010260	T-10/5	10	5	4.7	25.5	5.3	11.9	6.0	5.5	0.364	100	1000
010270	T-10/6		6		27.0	6.4	11.9	7.0	6.0	0.361	100	1000
010280	T-10/8		8		30.0	8.3	15.0	8.0	8.0	0.388	100	800
010290	T-10/10		10		34.0	10.5	18.0	10.5	9.5	0.414	100	600
010310	T-16/5	16	5	5.6	26.5	5.3	11.9	6.0	5.0	0.465	100	700
010320	T-16/6		6		28.5	6.4	11.9	7.0	6.0	0.489	100	700
010330	T-16/8		8		31.0	8.3	15.0	8.0	7.5	0.500	100	600
010340	T-16/10		10		34.5	10.5	18.0	10.0	9.0	0.524	100	500
010350	T-16/12		12		38.5	13.0	20.0	12.0	11.0	0.552	100	500
010360	T-25/6	25	6	7.1	31.0	6.4	13.8	7.0	6.0	0.700	50	450
010370	T-25/8		8		34.0	8.3	15.0	8.5	7.5	0.742	50	450
010380	T-25/10		10		39.0	10.5	18.0	11.0	10.0	0.811	50	400
010390	T-25/12		12		41.0	13.0	21.0	12.0	11.0	0.793	50	300
010410	T-35/6	35	6	8.7	34.0	6.4	15.7	7.0	6.0	1.081	50	300
010420	T-35/8		8		38.0	8.3	15.7	9.0	8.0	1.165	50	300
010430	T-35/10		10		42.0	10.5	19.0	11.0	10.0	1.221	50	200
010440	T-35/12		12		44.0	13.0	21.0	12.0	11.0	1.231	50	200
010450	T-35/14		14		48.0	14.5	21.0	14.0	13.0	1.315	50	200
010500	T-50/6	50	6	9.8	41.0	6.4	17.9	8.0	7.0	1.570	20	200
010510	T-50/8		8		43.0	8.3	17.9	9.0	8.0	1.591	20	180
010520	T-50/10		10		47.0	10.5	20.0	11.0	10.0	1.706	20	160
010530	T-50/12		12		51.0	13.0	21.0	13.0	12.0	1.746	20	160
010540	T-50/14		14		53.0	14.5	25.0	14.0	13.0	1.793	20	140
010550	T-50/16		16		55.0	16.5	26.0	15.0	14.0	1.771	20	140

COPPER CONNECTORS





10101 T
Copper cable lug

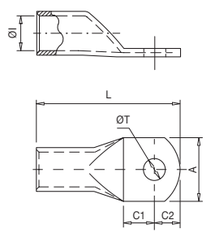
T cable lug manufactured from electrolytic copper tubing with a tin-plated surface finish to improve electrical contact. Incorporates inspection hole to check the correct cable positioning.

According to IEC 61238-1-1 standard.

Code	Ref.	Section (mm²)		Dimensions (mm) ØI	L	ØT	A	C1	C2	x 100	Bag	Box
010570	T-70/8	70	8	11.5	47.0	8.3	21.5	9.0	8.0	2.385	20	120
010580	T-70/10		10		51.0	10.5	21.5	11.0	10.0	2.510	20	120
010590	T-70/12		12		53.0	13.0	21.5	12.0	11.0	2.504	20	120
010600	T-70/14		14		58.0	14.5	25.0	15.0	13.0	2.698	20	100
0106 10	T-70/16		16		59.0	16.5	26.0	15.0	14.0	2.617	20	100
010630	T-95/8	95	8	13.5	52.0	8.3	24.7	10.0	9.0	3.354	20	80
010640	T-95/10		10		55.0	10.5	24.7	11.0	11.0	3.387	20	80
010650	T-95/12		12		57.0	13.0	24.7	12.0	12.0	3.468	20	80
010660	T-95/14		14		61.0	14.5	24.7	15.0	13.0	3.622	20	80
010670	T-95/16		16		64.0	16.5	27.0	16.0	15.0	3.690	20	80
010690	T-120/8	120	8	15.6	56.0	8.3	28.9	10.0	9.0	5.357	10	60
010700	T-120/10		10		58.0	10.5	28.9	11.0	10.0	5.452	10	60
010710	T-120/12		12		63.0	13.0	28.9	14.0	12.0	5.800	10	60
010720	T-120/14		14		67.0	14.5	28.9	16.0	14.0	6.068	10	60
010730	T-120/16		16		71.0	16.5	28.9	17.0	16.0	6.296	10	60
010750	T-150/10	150	10	16.5	69.0	10.5	30.4	13.0	11.0	7.125	10	50
010760	T-150/12		12		75.0	13.0	30.4	16.0	14.0	7.749	10	50
010770	T-150/14		14		79.0	14.5	30.4	18.0	16.0	7.891	10	50
010780	T-150/16		16		79.0	16.5	30.4	18.0	16.0	7.694	10	40
010800	T-185/10	185	10	18.8	74.0	10.5	34.0	13.0	11.0	9.842	10	40
010810	T-185/12		12		80.0	13.0	34.0	16.0	14.0	10.447	10	40
010820	T-185/14		14		84.0	14.5	34.0	18.0	16.0	10.991	10	40
010830	T-185/16		16		85.0	16.5	34.0	18.0	17.0	10.831	10	40
010850	T-240/10	240	10	21.2	82.0	10.5	38.4	14.0	12.0	12.466	5	25
010860	T-240/12		12		86.0	13.0	38.4	16.0	14.0	12.916	5	25
010870	T-240/14		14		90.0	14.5	38.4	18.0	16.0	13.352	5	25
010880	T-240/16		16		91.0	16.5	38.4	18.0	17.0	13.198	5	25
010900	T-300/12	300	12	23.4	93.0	13.0	41.7	16.0	14.0	15.780	5	15
010910	T-300/14		14		94.0	14.5	41.7	16.0	15.0	17.249	5	15
010920	T-300/16		16		100.0	16.5	41.7	19.0	18.0	18.161	5	15
010940	T-400/12*	400	12	26.8	110.0	13.0	47.8	21.0	19.0	24.560	5	10
010950	T-400/16*		16		110.0	16.5	47.8	21.0	19.0	24.246	5	10
010960	T-400/20*		20		116.0	21.0	47.8	24.0	22.0	25.010	5	10
010980	T-500/16*	500	16	29.8	115.0	16.5	54.8	22.0	19.0	42.990	1	9
010985	T-500/20*		20		120.0	21.0	54.8	24.0	22.0	46.702	1	9
010988	T-630/16*	630	16	34.5	128.0	16.5	64.4	22.0	19.0	66.260	1	5
010990	T-630/20*		20		134.0	21.0	64.4	24.0	23.0	68.680	1	5

* Not according to UL certified.





10102 TL
Copper cable lug long barrel

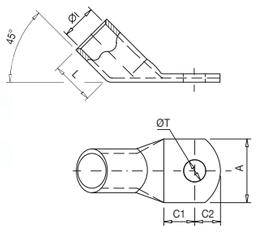
TL cable lug manufactured from electrolytic copper tubing with a tin-plated surface finish to improve electrical contact.
The longer barrel length ensures a better electrical connection in more adverse conditions.

According to IEC 61238-1-1 standard.

Code	Ref.	Section (mm²)	Dimensions (mm)						x 100	Bag	Box
			ØI	L	ØT	A	C1	C2			
006270	TL-10/6	10	6	4.7	35	6.4	11.9	7.0	6.0	0.492	100	600
006280	TL-10/8		8		38	8.3	15.0	8.0	8.0	0.513	100	600
006320	TL-16/6	16	6	5.6	39	6.4	11.9	7.0	6.0	0.685	100	400
006330	TL-16/8		8		41.5	8.3	15.0	8.0	7.5	0.691	100	400
006370	TL-25/8	25	8	7.1	50	8.3	15.0	8.5	7.5	1.128	50	250
006380	TL-25/10		10		55	10.5	18.0	11.0	10.0	1.193	50	200
006420	TL-35/8	35	8	8.7	53	8.3	15.7	9.0	8.0	1.685	50	150
006430	TL-35/10		10		57	10.5	19.0	11.0	10.0	1.765	50	150
006520	TL-50/10	50	10	9.8	63	10.5	20.0	11.0	10.0	2.372	20	120
006530	TL-50/12		12		67	13.0	21.0	13.0	12.0	2.402	20	100
006580	TL-70/10	70	10	11.5	69	10.5	21.5	11.0	10.0	3.600	10	40
006590	TL-70/12		12		71	13.0	21.5	12.0	11.0	3.561	10	40
006650	TL-95/12	95	12	13.5	79	13.0	24.7	12.0	12.0	5.260	10	40
006660	TL-95/14		14		83	14.5	24.7	15.0	13.0	5.137	10	40
006670	TL-95/16		16		86	16.5	27.0	16.0	15.0	5.191	10	40
006710	TL-120/12	120	12	15.6	87	13.0	28.9	14.0	12.0	8.231	10	30
006720	TL-120/14		14		91	14.5	28.9	16.0	14.0	8.630	10	30
006730	TL-120/16		16		95	16.5	28.9	17.0	16.0	8.834	10	30
006760	TL-150/12	150	12	16.5	99	13.0	30.4	16.0	14.0	10.243	10	30
006770	TL-150/14		14		103	14.5	30.4	18.0	16.0	10.290	10	30
006780	TL-150/16		16		103	16.5	30.4	18.0	16.0	10.423	10	30
006810	TL-185/12	185	12	18.8	108	13.0	34.0	16.0	14.0	14.417	10	20
006820	TL-185/14		14		112	14.5	34.0	18.0	16.0	14.891	10	20
006830	TL-185/16		16		113	16.5	34.0	18.0	17.0	14.746	10	20
006860	TL-240/12	240	12	21.2	114	13.0	38.4	16.0	14.0	17.324	5	15
006870	TL-240/14		14		118	14.5	38.4	18.0	16.0	17.978	5	15
006880	TL-240/16		16		119	16.5	38.4	18.0	17.0	17.914	5	15
006920	TL-300/16	300	16	23.4	132	16.5	41.7	19.0	18.0	22.698	6	12
006950	TL-400/16	400	16	26.8	140	16.5	47.8	21.0	19.0	32.130	4	8
006980	TL-500/16	500	16	29.8	143	16.5	54.8	22.0	19.0	53.430	1	7
006985	TL-630/16	630	16	34.5	155	16.5	64.4	22.0	19.0	85.713	1	3

COPPER CONNECTORS





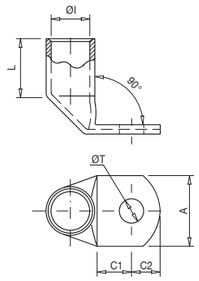
10103 T45°
Copper cable lug 45°

T45° cable lug manufactured from electrolytic copper tubing with a tin-plated surface finish to electrical contact. Its particular orientation makes it suitable for installations where connection needs a specific placement.

According to IEC 61238-1-1 standard.

Code	Ref.	Section (mm²)	Dimensions (mm)						x 100	Bag	Box
			ØI	L	ØT	A	C1	C2			
007270	T45-10/6	10	6	4.7	10	6.4	11.9	7.0	6.0	0.391	100	800
007280	T45-10/8		8			8.3	15.0	8.0	8.0	0.400	100	800
007320	T45-16/6	16	6	5.6	11	6.4	11.9	7.0	6.0	0.518	100	600
007330	T45-16/8		8			8.3	15.0	8.0	7.5	0.527	100	600
007370	T45-25/8	25	8	7.1	13	8.3	15.0	8.5	7.5	0.731	50	350
007380	T45-25/10		10			10.5	18.0	11.0	10.0	0.803	50	350
007420	T45-35/8	35	8	8.7	16	8.3	15.7	9.0	8.0	1.157	50	250
007430	T45-35/10		10			10.5	19.0	11.0	10.0	1.219	50	200
007520	T45-50/10	50	10	9.8	19	10.5	20.0	11.0	10.0	1.822	20	120
007530	T45-50/12		12			13.0	21.0	13.0	12.0	1.768	20	120
007580	T45-70/10	70	10	11.5	21	10.5	21.5	11.0	10.0	2.470	20	100
007590	T45-70/12		12			13.0		12.0	11.0	2.514	20	100
007660	T45-95/14	95	14	13.5	24	14.5	24.7	15.0	13.0	3.606	20	60
007670	T45-95/16		16			16.5	27.0	16.0	15.0	3.619	20	60
007720	T45-120/14	120	14	15.6	28	14.5	28.9	16.0	14.0	5.948	10	50
007730	T45-120/16		16			16.5		17.0	16.0	6.260	10	40
007770	T45-150/14	150	14	16.5	32	14.5	30.4	16.0	14.0	7.814	10	40
007780	T45-150/16		16			16.5		18.0	16.0	7.618	10	30
007830	T45-185/16	185	16	18.8	34	16.5	34.0	18.0	17.0	10.540	10	20
007880	T45-240/16	240	16	21.2	38	16.5	38.4	18.0	17.0	13.126	5	20





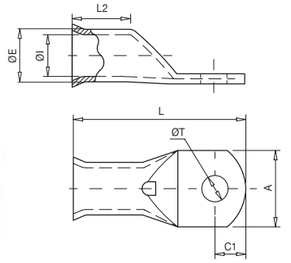
10104 T90°
Copper cable lug 90°

T90° cable lug manufactured from electrolytic copper tubing with a tin-plated surface finish to electrical contact. Its particular orientation makes it suitable for installations where connection needs a specific placement.

According to IEC 61238-1-1 standard.

Code	Ref.	Section (mm²)		Dimensions (mm) ØI	L	ØT	A	C1	C2	x 100	Bag	Box
008270	**T90-10/6**	10	6	4.7	10	6.4	11.9	7.0	6.0	0.374	100	800
008280	**T90-10/8**		8			8.3	15.0	8.0	8.0	0.396	100	700
008290	**T90-10/10**		10			10.5	18.0	11.0	10.0	0.444	100	100
008320	**T90-16/6**	16	6	5.6	11	6.4	11.9	7.0	6.0	0.500	100	600
008330	**T90-16/8**		8			8.3	15.0	8.0	7.5	0.509	100	600
008370	**T90-25/8**	25	8	7.1	13	8.3	15.0	8.5	7.5	0.768	50	300
008380	**T90-25/10**		10			10.5	18.0	11.0	10.0	0.813	50	300
008420	**T90-35/8**	35	8	8.7	16	8.3	15.7	9.0	8.0	1.295	50	250
008430	**T90-35/10**		10			10.5	19.0	11.0	10.0	1.157	50	200
008520	**T90-50/10**	50	10	9.8	19	10.5	20.0	11.0	10.0	1.788	20	160
008530	**T90-50/12**		12			13.0	21.0	13.0	12.0	1.983	20	160
008580	**T90-70/10**	70	10	11.5	21	10.5	21.5	11.0	10.0	2.586	20	100
008590	**T90-70/12**		12			13.0		12.0	11.0	2.614	20	100
008660	**T90-95/14**	95	14	13.5	24	14.5	24.7	15.0	13.0	3.737	20	60
008670	**T90-95/16**		16			16.5	27.0	16.0	15.0	3.730	20	60
008720	**T90-120/14**	120	14	15.6	28	14.5	28.9	16.0	14.0	6.350	10	30
008730	**T90-120/16**		16			16.5		17.0	16.0	6.508	10	30
008770	**T90-150/14**	150	14	16.5	32	14.5	30.4	18.0	16.0	8.000	10	30
008780	**T90-150/16**		16			16.5		18.0	16.0	7.860	10	30
008830	**T90-185/16**	185	16	18.8	34	16.5	34.0	18.0	17.0	10.850	10	20
008880	**T90-240/16**	240	16	21.2	38	16.5	38.4	18.0	17.0	13.630	5	15





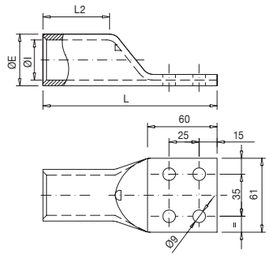
10105 TT
NF C20-130 Tulip copper cable lug

TT cable lug manufactured from electrolytic copper tubing with a tin-plated surface finish to improve electrical contact.
The tulip shape at the end of the barrel facilitates the introduction of the cable.

According to NF C20-130 standard.

Code	Ref.	Section (mm²)		Dimensions (mm) ØE	ØI	L	ØT	A	C1	L2	x 100	Bag	Box
009220	**TT-6/5**	6	5	5.5	3.3	30.50	5.3	13.0	8.0	11.0	0.243	100	1200
009230	**TT-6/6**		6			32.50	6.5		8.0		0.366	100	1000
009270	**TT-10/6**	10	6	6.8	4.3	30.50	6.5	12.0	6.5	12.0	0.598	100	800
009280	**TT-10/8**		8			37.00	8.5	15.0	10.0		0.485	100	600
009320	**TT-16/6**	16	6	8.0	5.3	33.30	6.5	12.0	6.3	14.0	0.712	100	500
009330	**TT-16/8**		8			37.50	8.5	16.0	8.5		0.752	100	500
009360	**TT-25/6**	25	6	9.5	6.6	36.30	6.5	13.0	6.3	15.0	0.874	50	300
009370	**TT-25/8**		8			42.00	8.5	18.0	10.0		1.022	50	300
009380	**TT-25/10**		10			46.00	10.5	18.0	12.0		1.139	50	250
009420	**TT-35/8**	35	8	11.0	7.9	44.00	8.5	17.0	10.0	17.0	1.591	50	200
009430	**TT-35/10**		10			49.00	10.5	17.0	12.0		1.592	50	200
009510	**TT-50/8**	50	8	12.5	9.2	47.00	8.5	18.0	10.0	19.0	2.109	20	140
009520	**TT-50/10**		10			52.00	10.5		12.0		2.264	20	140
009530	**TT-50/12**		12			54.00	13.0		13.0		2.101	20	120
009570	**TT-70/8**	70	8	15.0	11.0	51.00	8.5	21.0	10.0	21.0	2.241	20	100
009580	**TT-70/10**		10			55.00	10.5	21.0	12.0		3.357	20	80
009590	**TT-70/12**		12			59.00	13.0	22.0	13.0		3.449	20	80
009640	**TT-95/10**	95	10	17.0	13.1	60.00	10.5	25.0	12.0	22.0	4.518	20	60
009650	**TT-95/12**		12			62.00	13.0		13.0		4.292	20	60
009660	**TT-95/14**		14			66.50	15.0		14.5		4.354	20	60
009670	**TT-95/16**		16			70.00	17.0		16.0		4.714	20	60
009710	**TT-120/12**	120	12	19.0	14.5	66.00	13.0	28.0	13.0	26.0	6.544	10	50
009720	**TT-120/14**		14			69.50	15.0		14.5		5.972	10	50
009730	**TT-120/16**		16			72.00	17.0		16.0		6.198	10	50
009760	**TT-150/12**	150	12	21.0	16.2	73.00	13.0	30.0	15.0	30.0	8.578	10	40
009770	**TT-150/14**		14			73.00	15.0		15.0		8.069	10	40
009780	**TT-150/16**		16			75.00	17.0		16.0		7.865	10	40
009810	**TT-185/12**	185	12	23.0	18.0	81.00	13.0	33.5	16.0	32.0	10.255	10	40
009830	**TT-185/16**		16			87.00	17.0		19.0		10.596	10	30
009860	**TT-240/12**	240	12	26.0	20.6	93.50	13.0	38.0	21.5	35.0	14.383	5	25
009880	**TT-240/16**		16			93.50	17.0		21.5		14.240	5	25
009920	**TT-300/16**	300	16	28.0	23.0	102.00	17.0	41.0	19.0	44.0	16.270	5	10
009950	**TT-400/16**	400	16	32.0	26.0	115.00	17.0	46.5	19.0	44.0	26.819	4	8



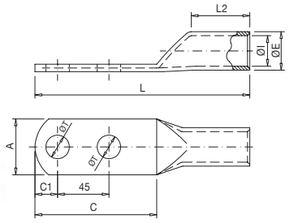


10106 T4H
Copper cable lug with 4 holes palm

The T4H copper cable lug with 4 holes palm is manufactured from electrolytic copper with a tin-plated surface finish to improve electrical contact.

Code	Ref.	Section (mm²)	Dimensions (mm)				x 100	Bag	Box
			ØE	ØI	L	L2			
001100	T-185/4H	185	23.7	18.8	124.0	46.0	14.924	1	30
001110	T-240/4H	240	26.2	21.2	128.0	48.0	17.328	1	15
001120	T-300/4H	300	28.6	23.4	133.0	50.0	21.280	1	15
001130	T-400/4H	400	32.8	26.8	134.0	50.0	28.570	1	10
001140	T-500/4H	500	38.4	29.8	139.0	54.0	51.860	1	8
001150	T-630/4H	630	44.7	34.5	145.0	60.0	76.075	1	4
001160	T-800/4H	800	52.0	40.0	160.0	70.0	115.175	1	3



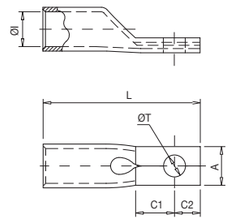


10107 TDT
Copper cable lug with 2 holes palm

The TDT copper cable lug with 2 holes palm is mannufactured from electrolytic copper with a tin-plated surface finish to improve electrical contact.

Code	Ref.	Section (mm²)	Dimensions (mm)								x 100	Bag	Box
			ØE	ØI	L	ØT	A	L2	C1	C			
002530	TDT-50/12	50	14.0	11.0	130.0	13.0	20.5	40.0	14.5	75.0	5.757	30	60
002590	TDT-70/12	70	15.0	12.0	130.0	13.0	21.4	40.0	17.0	80.0	6.365	30	60
002650	TDT-95/12	95	18.0	14.0	132.0	13.0	26.0	42.0	17.0	80.0	10.676	10	30
002710	TDT-120/12	120	20.0	16.0	135.0	13.0	29.0	42.0	17.0	80.0	11.952	10	30
002760	TDT-150/12	150	22.0	17.0	150.0	13.0	31.5	50.0	17.0	80.0	18.350	5	25
002810	TDT-185/12	185	23.0	18.2	150.0	13.0	33.0	50.0	17.0	80.0	18.678	5	20
002860	TDT-240/16	240	28.0	22.0	150.0	17.0	40.0	50.0	17.0	80.0	27.072	5	15
002900	TDT-300/16	300	32.0	25.0	180.0	17.0	46.0	68.0	21.5	89.0	44.516	6	12
002940	TDT-400/16	400	37.0	30.0	180.0	17.0	54.0	60.0	22.0	90.0	55.198	2	8
002980	TDT-500/16	500	40.0	31.0	180.0	17.0	57.5	60.0	23.5	93.0	72.520	2	8





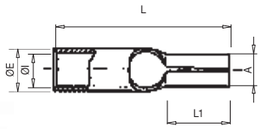
10108 TPE
Copper cable lug narrow palm

TPE cable lug manufactured from electrolytic copper with a tin-plated surface finish to improve electrical contact. The narrow palm design makes it suitable for reduced spaces.

According to IEC 61238-1-1 standard.

Code	Ref.	Section (mm²)		Dimensions (mm)						x 100	Bag	Box
				ØI	L	ØT	A	C1	C2			
032125	TPE-50/8	50	8	9.8	50.0	8.5	15.0	10.0	8.0	1.826	20	160
032126	TPE-50/10		10			10.5				1.724	20	160
032131	TPE-70/8	70	8	11.5	55.0	8.5	15.0	12.0	8.0	2.800	20	100
032132	TPE-70/10		10			10.5				2.730	20	100
032140	TPE-95/8	95	8	13.5	60.0	8.5	15.0	11.0	10.0	3.739	20	80
032145	TPE-95/10		10			10.5				3.763	20	80
032149	TPE-120/8	120	8	15.6	65.0	8.5	21.0	10.0	11.0	6.186	10	60
032150	TPE-120/10		10			10.5				6.105	10	60
032155	TPE-150/8	150	8	16.5	72.0	8.5	21.0	13.0	12.0	8.112	10	40
032160	TPE-150/10		10			10.5				7.284	10	40
032161	TPE-150/12		12			12.5				7.178	10	40
032170	TPE-185/10	185	10	18.9	75.0	10.5	26.0	13.0	12.0	9.710	10	30
032171	TPE-185/12		12			12.5				9.570	10	30
032180	TPE-240/10	240	10	21.2	85.0	10.5	26.0	13.0	12.0	12.772	5	25
032181	TPE-240/12		12			12.5				12.584	5	25



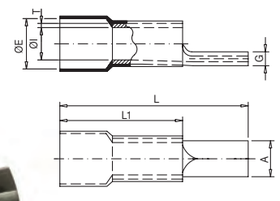


10109 CP
Pin terminal

CP pin terminal manufactured from electrolytic copper tubing with a tin-plated surface finish to improve electrical contact.
Its design makes it suitable for those applications of the conductor to the clamp.

Code	Ref.	Section (mm²)	Dimensions (mm)					x 100	Bag	Box
			ØE	Øl	L	A	L1			
025100	**CP-1.5**	1.5	3.5	1.7	17.0	2.0	10.0	0.600	100	2000
025110	**CP-2.5**	2.5	4.2	2.5	17.5	2.0	10.0	0.700	100	2000
025120	**CP-6**	6	6.0	3.7	20.0	2.5	10.0	1.490	100	1500
025130	**CP-10**	10	6.8	4.7	25.0	5.0	12.0	0.423	100	1000
025140	**CP-16**	16	7.8	5.6	31.0	6.0	15.0	0.573	100	800
025150	**CP-25**	25	9.4	7.1	34.0	7.0	18.0	0.829	100	500
025160	**CP-35**	35	11.3	8.7	42.0	9.0	18.0	1.420	100	300
025170	**CP-50**	50	12.6	9.8	46.0	10.0	21.0	1.849	50	200





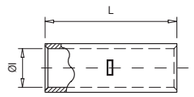
10109 CPP
Connection tip isolated

CPP connectors are made from electrolytic copper tubing with a tin-plated surface finish for improved electrical contact. The design facilitates connection of the cable lugs in the terminals.
The shape of the cable end facilitates cable insertion.
The insulation provides an additional degree of protection.

Code	Ref.	Section (mm²)	Dimensions (mm)							x 100	Bag	Box
			ØE	Øl	L	L1	G	A	T			
025180	**CPP-10**	10	9.0	4.5	29.5	15.5	2.4	4.3	1.1	0.290	100	600
025190	**CPP-16**	16	10.5	5.9	35.0	19.0	2.6	5.5	1.2	0.470	100	300
025200	**CPP-25**	25	11.5	7.0	44.5	24.5	2.6	6.8	1.2	0.750	100	200
025210	**CPP-35**	35	14.0	8.7	54.0	29.5	3.2	8.0	1.5	1.320	50	150
025220	**CPP-50**	50	15.8	9.8	61.0	35.0	3.8	9.5	1.8	2.040	50	100
025230	**CPP-70**	70	18.0	11.6	75.0	44.0	4.2	11.0	2.0	3.310	25	50
025240	**CPP-95**	95	21.6	13.5	75.0	44.0	5.2	12.5	2.5	4.740	20	40

COPPER CONNECTORS



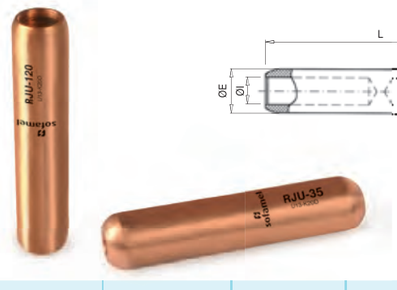


10110 M
Copper butt-connector

M copper butt-connector manufactured from electrolytic copper tubing with a tin-plated surface finish to improve electrical contact. Incorporates a central stop which facilitates the correct cable positioning.

According to IEC 61238-1-1 standard.

Code	Ref.	Section (mm²)	Dimensions (mm)		x 100	Bag	Box
			Øl	L			
015100	**M-1.5**	1.5	1.8	15.0	0.072	100	5000
015110	**M-2.5**	2.5	2.7	15.0	0.109	100	3500
015120	**M-4**	4	3.3	22.0	0.204	100	1600
015130	**M-6**	6	3.8	22.0	0.227	100	1300
015140	**M-10**	10	4.7	25.0	0.397	100	800
015150	**M-16**	16	5.6	27.0	0.516	100	600
015160	**M-25**	25	7.1	29.0	0.730	50	400
015170	**M-35**	35	8.7	33.0	1.127	50	250
015190	**M-50**	50	9.8	35.0	1.434	20	200
015200	**M-70**	70	11.5	39.0	2.149	20	120
015210	**M-95**	95	13.5	43.0	2.906	20	80
015220	**M-120**	120	15.6	47.0	4.730	10	60
015230	**M-150**	150	16.5	58.0	6.375	10	50
015240	**M-185**	185	18.9	64.0	8.929	10	40
015250	**M-240**	240	21.2	75.0	11.834	5	30
015260	**M-300**	300	23.4	90.0	16.082	5	15
015270	**M-400**	400	26.8	90.0	20.998	5	10
015280	**M-500**	500	29.8	98.0	40.235	1	5
015290	**M-630**	630	34.5	105.0	64.730	1	1

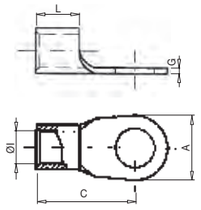


10111 RJU
Medium voltage copper join

The medium voltage copper joint RJU manufactured from electrolytic copper bar. Incorporates a central stop which facilitates the correct cable positioning.

Code	Ref.	Section (mm²)	Dimensions (mm)			x 100	Bag	Box
			ØE	Øl	L			
017160	**RJU0-25**	25	20	7.5	95	23.28	1	25
017170	**RJU0-35**	35	20	8.5	95	22.32	1	25
017180	**RJU1-50**	50	20	9.5	95	21.23	1	25
017190	**RJU1-70**	70	20	11	95	19.37	1	25
017200	**RJU1-95**	95	20	13	95	16.48	1	25
017210	**RJU2-120**	120	20	14.2	95	14.51	1	25
017220	**RJU2-150**	150	25	16	102	27.51	1	15
017230	**RJU4-185**	185	25	18	102	22.92	1	15
017240	**RJU4-240**	240	32	20	105	48.53	1	10





10112 TD
Welded copper cable lug

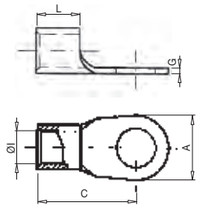
TD cable lug manufactured from welded copper strip with a tin-plated surface finish to improve electrical contact.

According to DIN 46234 Standard.

Code	Ref.	Section (mm²)		Dimensions (mm) ØI	L	A	C	G	x100	Bag	Box
020100	TD-1.5/3		3			6.0	11.0		0.055	100	4000
020110	TD-1.5/4	1.5	4	1.6	5.0	8.0	12.0	0.8	0.070	100	3500
020120	TD-1.5/5		5			10.0	13.0		0.084	100	3000
020130	TD-2.5/3		3			6.0	11.0		0.064	100	3000
020140	TD-2.5/4		4			8.0	12.0		0.077	100	3000
020150	TD-2.5/5	2.5	5	2.3	5.0	10.0	14.0	0.8	0.080	100	2000
020160	TD-2.5/6		6			11.0	16.0		0.110	100	2000
020170	TD-2.5/8		8			14.0	17.0		0.135	100	2000
020180	TD-6/4		4			8.0	14.0		0.139	100	800
020190	TD-6/5		5			10.0	15.0		0.157	100	800
020200	TD-6/6	6	6	3.6	6.0	11.0	16.0	1.0	0.168	100	800
020210	TD-6/8		8			14.0	19.0		0.213	100	800
020220	TD-6/10		10			18.0	21.0		0.279	100	800
020230	TD-10/5		5			11.0	16.0		0.229	100	600
020240	TD-10/6		6			11.0	17.0		0.240	100	600
020250	TD-10/8	10	8	4.5	8.0	14.0	20.0	1.1	0.290	100	600
020260	TD-10/10		10			18.0	21.0		0.349	100	500
020270	TD-10/12		12			22.0	23.0		0.414	100	400
020280	TD-16/5		5			10.0	20.0		0.406	100	600
020290	TD-16/6		6			11.0	20.0		0.381	100	600
020300	TD-16/8	16	8	5.8	10.0	14.0	22.0	1.2	0.425	100	600
020310	TD-16/10		10			18.0	24.0		0.502	100	500
020320	TD-16/12		12			22.0	26.0		0.600	100	400
020330	TD-25/6		6			12.0	25.0		1.400	50	300
020340	TD-25/8		8			16.0	25.0		1.480	50	300
020350	TD-25/10	25	10	7.5	11.0	18.0	26.0	1.5	1.560	50	300
020360	TD-25/12		12			22.0	31.0		1.920	50	200
020370	TD-25/16		16			28.0	35.0		2.320	50	200
020380	TD-35/6		6			15.0	26.0		1.920	50	200
020390	TD-35/8		8			26.0	26.0		1.920	50	200
020400	TD-35/10	35	10	9.0	12.0	18.0	27.0	1.6	2.040	50	200
020410	TD-35/12		12			22.0	31.0		2.360	50	200
020420	TD-35/16		16			28.0	36.0		2.880	50	200

COPPER CONNECTORS





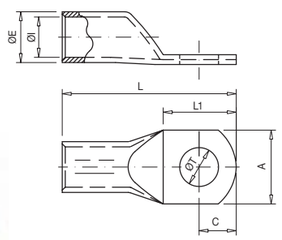
10112 TD
Welded copper cable lug

TD cable lug manufactured from welded copper strip with a tin-plated surface finish to improve electrical contact.

According to DIN 46234 Standard.

Code	Ref.	Section (mm²)		Dimensions (mm) ØI	L	A	C	G	x100	Bag	Box
020430	TD-50/6		6			18.0	34.0		1.760	25	150
020440	TD-50/8		8			18.0	34.0		1.720	25	150
020450	TD-50/10	50	10	11.0	16.0	18.0	34.0	1.8	1.680	25	150
020460	TD-50/12		12			22.0	36.0		1.840	25	150
020470	TD-50/16		16			28.0	40.0		2.120	25	100
020480	TD-70/6		6			22.0	38.0		2.600	10	80
020490	TD-70/8		8			22.0	38.0		2.600	10	80
020500	TD-70/10	70	10	13.0	18.0	22.0	38.0	2.0	2.600	10	80
020510	TD-70/12		12			22.0	38.0		2.600	10	80
020520	TD-70/16		16			22.0	38.0		2.600	10	80
020530	TD-95/8		8			24.0	42.0		4.100	10	60
020540	TD-95/10	95	10	15.0	20	24.0	42.0	2.5	4.100	10	60
020550	TD-95/12		12			24.0	42.0		4.000	10	60
020560	TD-95/16		16			28.0	44.0		4.100	10	60
020570	TD-120/8		8			24.0	44.0		5.600	10	60
020580	TD-120/10	120	10	16.5	22	24.0	44.0	3.0	6.200	10	60
020590	TD-120/12		12			24.0	44.0		5.400	10	60
020600	TD-120/16		16			28.0	48.0		5.700	10	40
020610	TD-150/10		10			30.0	50.0		8.400	5	30
020620	TD-150/12	150	12	19.0	24	30.0	50.0	3.2	8.600	5	25
020630	TD-150/16		16			30.0	50.0		7.700	5	20
020640	TD-185/10		10			36.0	50.0		11.100	5	20
020650	TD-185/12	185	12	21.0	28	36.0	50.0	3.5	10.800	5	20
020660	TD-185/16		16			36.0	50.0		10.700	5	20
020670	TD-240/10		10			38.0	56.0		15.200	5	20
020680	TD-240/12	240	12	23.5	32	38.0	56.0	4.0	15.000	5	20
020690	TD-240/16		16			38.0	56.0		14.700	5	15





10113 TCD
DIN 46235 copper cable lug

TCD cable lug manufactured from electrolytic copper with a tin-plated surface finish to improve electrical contact.

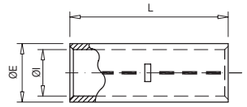
According to DIN 46235.

Code	Ref.	Section (mm²)		Dimensions (mm)							x 100	Bag	Box
				ØE	Ø1	L	ØT	A	L1	C			
005270	TCD-10/6	10	6	6.0	4.5	37.5	6.4	9.0	19.5	9.5	0.350	100	700
005280	TCD-10/8		8			40.0	8.4	13.0	21.0	11.0	0.354	100	600
005320	TCD-16/6	16	6	8.5	5.5	46.5	6.4	13.0	18.5	9.5	1.194	50	250
005330	TCD-16/8		8			49.0	8.4	13.0	23.0	11.0	1.206	50	250
005370	TCD-25/8	25	8	10.0	7.0	51.0	8.4	16.0	23.0	12.0	1.551	50	200
005380	TCD-25/10		10			53.0	10.5	17.0	27.0	14.0	1.543	50	200
005420	TCD-35/8	35	8	12.5	8.2	55.0	8.4	17.5	23.0	12.0	3.010	20	120
005430	TCD-35/10		10			57.0	10.5	19.0	27.0	14.0	2.997	20	120
005520	TCD-50/10	50	10	14.5	10	67.0	10.5	22.0	27.0	14.0	4.497	20	100
005530	TCD-50/12		12			68.0	13.0	24.0	29.0	15.0	4.403	20	100
005580	TCD-70/10	70	10	16.5	11.5	70.0	10.5	24.0	27.0	14.0	6.029	20	60
005590	TCD-70/12		12			71.0	13.0	24.0	27.0	14.0	6.065	20	60
005650	TCD-95/12	95	12	19.0	13.5	78.0	13.0	28.0	26.0	13.0	8.373	10	40
005660	TCD-95/14		14			79.5	15.0	32.0	29.0	14.5	8.357	10	40
005670	TCD-95/16		16			81.0	17.0	32.0	32.0	16.0	8.596	10	40
005700	TCD-120/10	120	10	21.0	15.5	85.0	10.5	30.0	27.0	14.0	10.728	10	30
005710	TCD-120/12		12			86.0	13.0	30.0	29.0	15.0	10.436	10	30
005720	TCD-120/14		14			88.0	15.0	30.0	31.0	16.0	10.820	10	30
005730	TCD-120/16		16			89.0	17.0	30.0	35.0	18.0	10.650	10	30
005760	TCD-150/12	150	12	23.5	17.0	94.0	13.0	34.0	29.0	15.0	13.374	10	20
005770	TCD-150/14		14			96.0	15.0	34.0	31.0	16.0	15.514	10	20
005780	TCD-150/16		16			97.0	17.0	34.0	35.0	18.0	15.436	10	20
005810	TCD-185/12	185	12	25.5	19.0	98.0	13.0	37.0	29.0	15.0	18.167	10	20
005820	TCD-185/14		14			100.0	15.0	37.0	31.0	16.0	17.852	10	20
005830	TCD-185/16		16			101.0	17.0	37.0	35.0	18.0	18.227	10	20
005860	TCD-240/12	240	12	29.0	21.5	108.0	13.0	42.0	29.0	15.0	25.766	5	10
005870	TCD-240/14		14			110.0	15.0	42.0	31.0	16.0	25.780	5	10
005880	TCD-240/16		16			111.0	17.0	42.0	35.0	18.0	26.587	5	10
005920	TCD-300/16	300	16	32.0	24.5	119.0	17.0	48.0	35.0	18.0	31.472	5	10
005950	TCD-400/16*	400	16	38.5	27.5	140.0	17.0	55.0	45.0	24.0	53.380	2	4
005980	TCD-500/16*	500	16	42.0	31.0	150.0	17.0	60.0	45.0	24.0	78.187	1	4

*Not according to UL certified.

COPPER CONNECTORS





10114 MCD
DIN 46267 copper butt-connector

MCD butt-connector manufactured from electrolytic copper with a tin-plated finish to improve electrical contact.

According to DIN 46267.

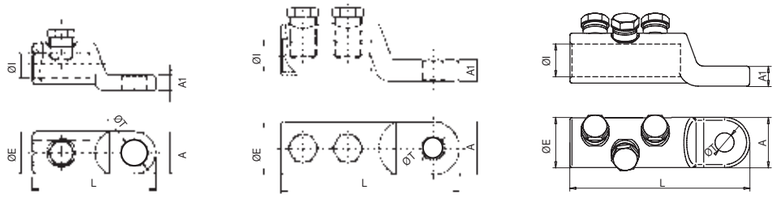
Code	Ref.	Section (mm²)	Dimensions (mm)			x 100	Bag	Box
			ØE	Ø1	L			
004130	MCD-6	6	5.5	3.8	30	0.317	100	1000
004140	MCD-10	10	6.0	4.5	30	0.320	100	700
004150	MCD-16	16	8.5	5.5	50	1.387	100	200
004160	MCD-25	25	10.0	7.0	50	1.683	50	150
004170	MCD-35	35	12.5	8.2	50	2.988	20	120
004190	MCD-50	50	14.5	10.0	56	4.073	20	80
004200	MCD-70	70	16.5	11.5	56	5.169	20	60
004210	MCD-95	95	19.0	13.5	70	8.157	10	40
004220	MCD-120	120	21.0	15.5	70	8.231	10	40
004230	MCD-150	150	23.5	17.0	80	13.810	10	30
004240	MCD-185	185	25.5	19.0	85	16.332	5	25
004250	MCD-240	240	29.0	21.5	90	22.368	5	15
004260	MCD-300	300	32.0	24.5	100	27.634	5	10
004270	MCD-400	400	38.5	27.5	150	73.500	2	6
004280	MCD-500	500	42.0	31.0	160	86.740	1	2
004290	MCD-625	625	44.0	34.5	160	79.900	1	2
004300	MCD-800	800	52.0	40.0	200	151.616	1	8
004310	MCD-1000	1000	58.0	44.0	200	197.510	1	8



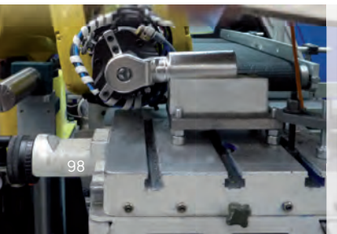
10201 TTG
Shear head bolt cable lug

TTG cable lugs are manufactured from high conductivity smelted aluminium of purity higher than 99.5% and with a tin-plated surface finish that covers the complete cable lug suface by means of an electrolytic process.

*According to UNE 211024-3 standard.
Have the AENOR certified mark.



Code	Ref.	Section (mm²)		Strip length			Dimensions (mm)						x 100	Bag	Box
					M		ØE	ØI	L	ØT	A	A1			
101102	TTG-16/50/8	16 to 50	1	35	1 x M12	12	22	10	64	9	22	8	4.500	1	100
101103	TTG-16/50/10						22	10	64	11	22	8	4.300	1	100
101104	TTG-16/50/12						22	10	64	13	22	8	4.300	1	100
101105	TTG-50/8*	25 to 50	1	35	1 x M12	12	22	10	64	9	22	8	4.500	1	100
101106	TTG-50/10*						22	10	64	11	22	8	4.300	1	100
101107	TTG-50/12*						22	10	64	13	22	8	4.300	1	100
101113	TTG-95/8*	50 to 95	1	35	1 x M12	12	22	13	64	9	22	8	4.400	1	100
101114	TTG-95/10*						22	13	64	11	22	8	4.300	1	100
101115	TTG-95/12*						22	13	64	13	22	8	4.000	1	100
101135	TTG-150/10*	95 to 150	2	60	2 x M17	17	26	16	100	11	26	10	11.000	1	50
101136	TTG-150/12*						26	16	100	13	26	10	10.800	1	50
101099	TTG-240/10*	95 to 240	2	60	2 x M17	17	33	20	112	11	33	13.5	17.300	1	45
101100	TTG-240/12*						33	20	112	13	33	13.5	17.400	1	45
101119	TTG-400/12	240 to 400	2	75	2 x M22	22	40	26	135	13	40	13.5	27.500	1	30
101120	TTG-400/16						40	26	135	17	40	13.5	28.500	1	30
101124	TTG-630/12/T3	500 to 630	3	92	3 x M24	24	52	32.5	165	13	52	20	70.940	1	-
101125	TTG-630/16/T3						52	32.5	165	17	52	20	70.560	1	-
101126	TTG-630/20/T3						52	32.5	165	21	52	20	64.560	1	-
101127	TTG-1000/20/T4	800 to 1000	4	105	4 x M22	22	65	41	175.5	21	65	30	126.400	1	-





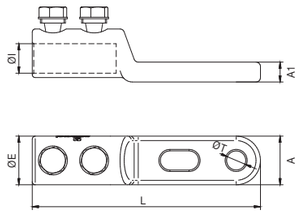


SHEAR HEAD BOLT CONNECTORS



10201 TTG2
Shear head bolt cable lug

TTG/2 cable lugs are manufactured in high conductivity smelted aluminium of purity higher than 99.5%, with a tinned surface finish over the entire surface of the cable lug by means of electrolytic bath.

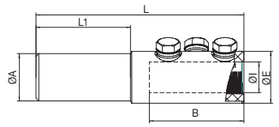


Code	Ref.	Section (mm²)	Strip length	M		Dimensions (mm)							x 100	Bag	Box
						ØE	ØI	L	ØT	A	A1				
101180	TTG/2-240/10	95 to 240	2	2 x M17	17	33	20	155	11	33	13.5	22.300	1	-	
101185	TTG/2-240/12		60			33	20	155	13	33	13.5	21.700	1	-	



10202 BTF
Bimetallic cable lug

BTF cable lugs are manufactured from high conductivity aluminium.
Shear head bolts are designed to be broken by suitable torque as per conductor section, being perfectly flush against the connector wall. 15 µ tinned surface finish giving a greater protection against corrosion.



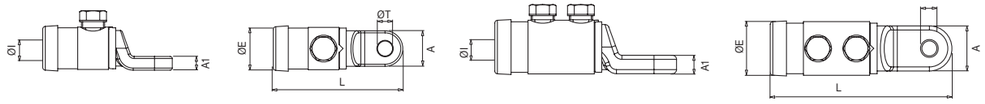
Code	Ref.	Section (mm²)	Strip length	M		Dimensions (mm)								x 100	Bag	Box
						ØA	B	ØE	ØI	L	L1	M	P			
101380	BTF-400/630	400 - 630	105	3 x M24	22	50	100	55	32.5	220	100	M24	22	1.16	1	-
101385	BTF-800/1000	800 - 1000	120	4 x M22			115	65	42	250		M22		1.53	1	-



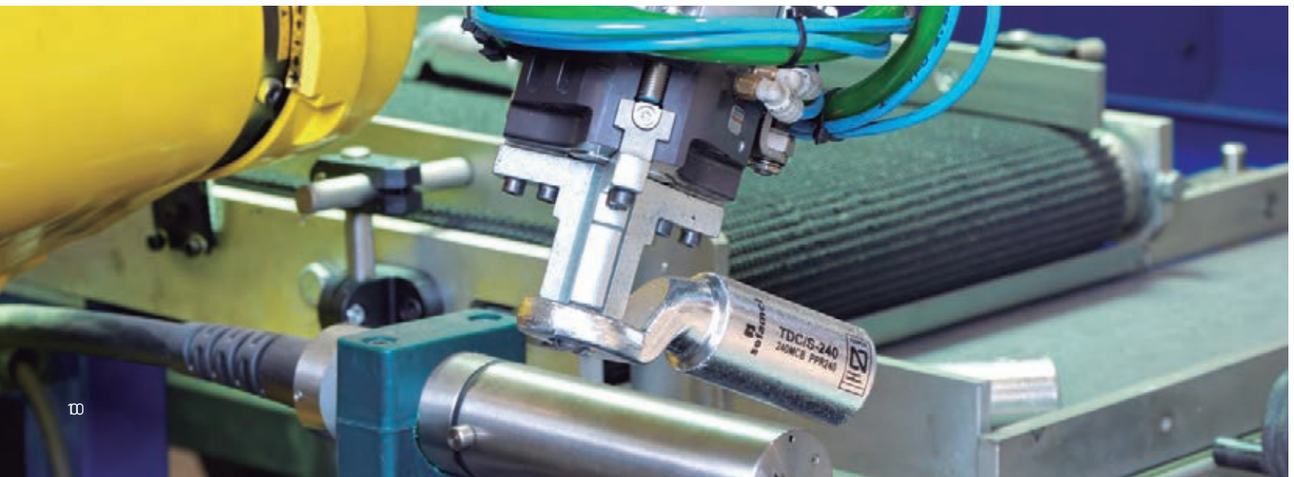
10203 TTGA
Insulated terminals with shear head bolts

TTGA cable lugs are manufactured from high-conductivity cast aluminium with a finish covering the complete cable lug surface using a tinplating process. They feature an insulated cover and different-coloured bands to differentiate between phases: black, brown and grey and neutral in blue.

According to UNE 211022 standard.
Have the AENOR certified mark.



Code	Ref.	Section (mm²)	T1/T2		T3		Strip length	Dimensions (mm)						x 100	Bag	Box
			M		M			ØE	ØI	L	ØT	A	A1			
101400	TTGA-50/8	25 to 50	1 x M12	12	8	13	35	29	13	79	9	22	8	6.600	1	50
101405	TTGA-50/10				10	17		29	13	79	11	22	8	6.700	1	50
101410	TTGA-50/12				12	19		29	13	79	13	22	8	7.100	1	50
101415	TTGA-95/8	50 to 95	1 x M12	12	8	13	35	29	13	79	9	22	8	6.400	1	50
101420	TTGA-95/10				10	17		29	13	79	11	22	8	6.600	1	50
101425	TTGA-95/12				12	19		29	13	79	13	22	8	7.000	1	50
101438	TTGA-150/10	95 to 150	2 x M17	17	10	17	60	33	16	118	11	26	10	11.300	1	30
101439	TTGA-150/12				12	19		33	16	118	13	26	10	11.100	1	30
101450	TTGA-240/10	150 to 240	2 x M17	17	10	17	60	40	20	133	11	33	13.5	21.000	1	25
101455	TTGA-240/12				12	19		40	20	133	13	33	13.5	21.700	1	25



SHEAR HEAD BOLT CONNECTORS

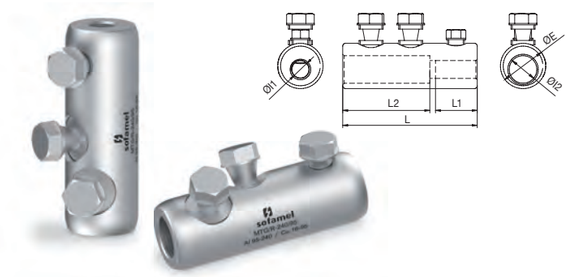


10202 MTG
Shear head bolt connector

MTG connector manufactured from high conductivity aluminium.
Shear head bolts are designed to be broken by suitable torque as per conductor section, being perfectly flush against the connector wall, 15 µ tinned surface finish giving a greater protection against corrosion.

According to UNE 211024-3 standard.

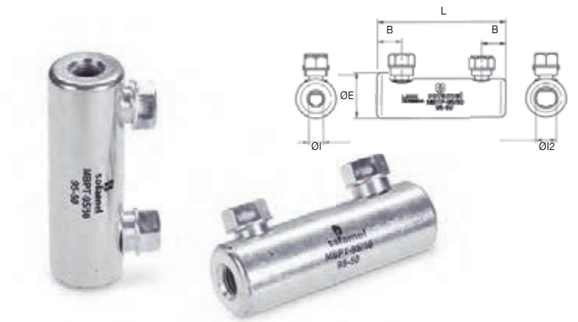
Code	Ref.	Section		Dimensions (mm)			x 100	Bag	Box
				ØE	ØI	L			
101204	MTG-25/95	25 to 95	2	25	12.5	60	9.000	1	-
101200	MTG-95/240	95 to 240	4	35	20	120	21.800	1	40
101201	MTG-240/400	240 to 400	6	42	26	170	60.180	1	-
101202	MTG-500/630	500 to 630	6	52	33	200	88.810	1	-
101203	MTG-630/1000	630 to 1000	8	65	41	220	151.250	1	-



10202 MTG/R
Shear head bolt connector reducer

MTG/R connector manufactured in high conductivity aluminium. Fuse splicers are designed to break according to the conductor section, flush with the connector, 20 µ tinned surface finish giving a greater protection against corrosion.

Code	Ref.	Section		Dimensions (mm)						x 100	Bag	Box
		S1	S2	ØE	ØI1	ØI2	L	L1	L2			
101230	MTG/R-240/95	95-240	16-95	35	12.5	20	100	31	66	22.500	1	75



10202 MBPT-95/50
Shear head bolt connector

Bimetallic earthing connector for 95 mm² aluminium to 50 mm² aluminium sections.
Recommended for subterranean networks not subject to mechanical traction.
Installation by tightening shear bolt.
High-strength aluminium alloy connector.
With 20 µ tinplated finish.
For bimetallic use.

Code	Ref.	Section		Dimensions (mm)					x 100	Bag	Box
		Al	Al	ØE	ØI1	ØI2	L	B			
101210	MBPT-95/50	95	50	25	9	12.6	80	15	10.300	1	75

SHEAR HEAD BOLT CONNECTORS



10204 MTSA
Insulated shear head bolt connector

Joint sleeve fuse for aluminium connection of sections ranging from 25 to 240 mm².
Recommended for underground networks.
Installation through torque using insulated fuse connectors.
Sleeve in high-resistance aluminium alloy.
Fitted with insulating cover and sealing ring at the ends.

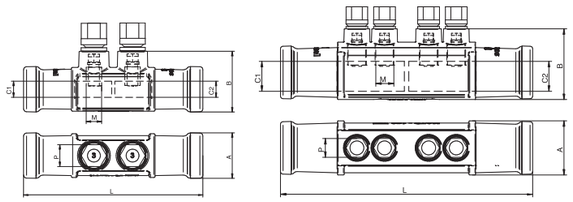
According to UNE 211022 standard.
Have the AENOR certified mark.


25 - 50 mm²


95 - 150 mm²

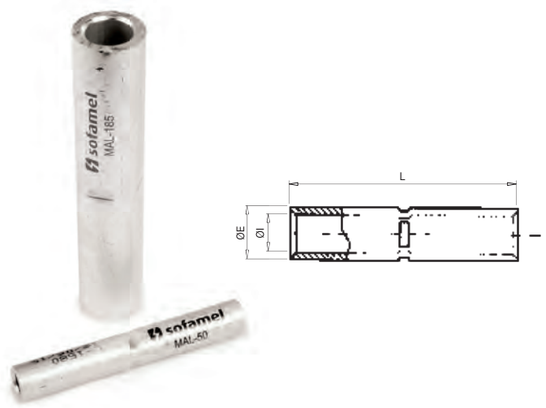

50 - 95 mm²


150 - 240 mm²



Code	Ref.	Section mm²	Section Cable		Dimensions (mm)						x 100	Bag	Box
			C1	C2	A	B	L	M	P	Par Nm			
101250	**MTSA-50**	25-50	25-50	25-50	35	47	139	2 x M12	17	22 ±2	16.000	1	-
101255	**MTSA-95**	50-95	50-95	50-95							16.000	1	-
101270	**MTSA-25/95**	25-95	25-50	50-95							16.000	1	-
101260	**MTSA-150**	95-150	95-150	95-150	48	64	229	4 x M17	17	30 ±3	51.000	1	-
101265	**MTSA-240**	150-240	150-240	150-240							51.000	1	-
101275	**MTSA-95/240**	95-240	95-150	150-240							51.000	1	-

ALUMINIUM CONNECTORS

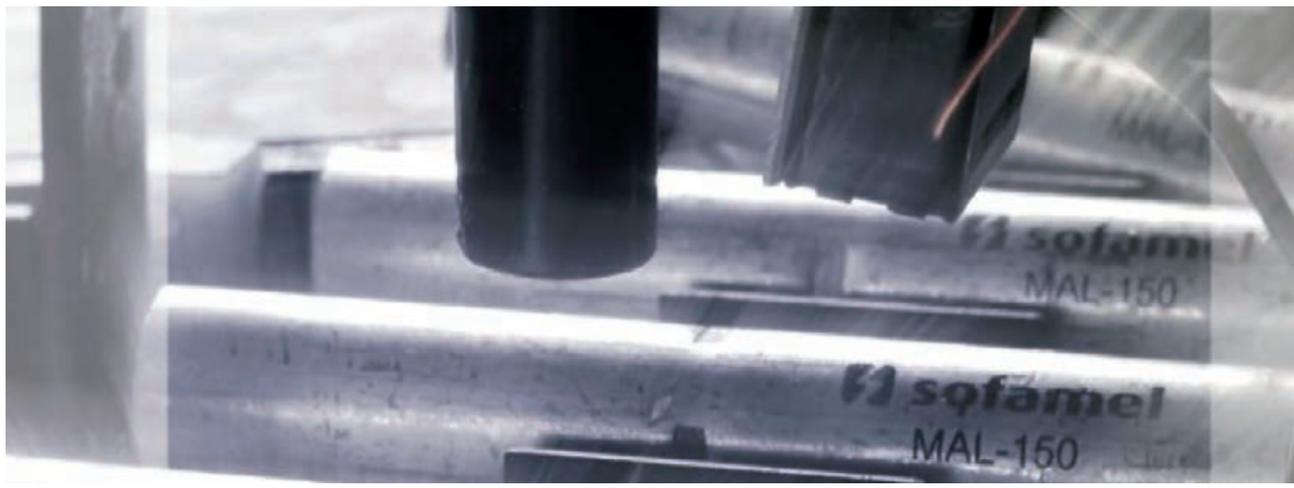


10301 MAL
Aluminium butt-connector

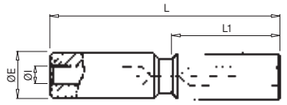
MAL butt-connector manufactured from aluminium alloy tube of purity equal or higher than 99.5%. Incorporates a central buffer stop which divides the connector in two equal parts. Both holes contain neutral grease to avoid aluminium oxidation.

For overhead cable

Code	Ref.	Section (mm²)	Dimensions (mm)			x 100	Bag	Box
			ØE	Øl	L			
080100	**MAL-25**	25	11.0	6.5	100	1.880	1	250
080110	**MAL-35**	35	13.3	7.8	100	2.660	1	200
080120	**MAL-50**	50	15.2	9.7	100	2.840	1	200
080130	**MAL-70**	70	17.0	11.0	100	3.700	1	150
080140	**MAL-95**	95	19.3	12.5	100	4.700	1	130
080150	**MAL-120**	120	21.7	14.1	140	9.200	1	90
080160	**MAL-150**	150	25.0	15.5	140	12.300	1	85
080170	**MAL-185**	185	28.1	18.3	140	13.800	1	60
080180	**MAL-240**	240	32.0	19.5	140	18.800	1	50
080190	**MAL-300**	300	34.0	23.3	145	25.000	1	50





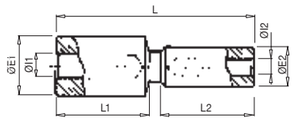


10302 BT
Aluminium joint

BT joint manufactured from aluminium alloy of purity equal or higher than 99.5%. Incorporates a central buffer stop which divides the joint in two equal parts. Both holes contain neutral grease to avoid aluminium oxidation.

Code	Ref.	Section (mm²)	Dimensions (mm)				x 100	Bag	Box
			ØE	Øl	L	L1			
085100	**BT-25**	25	20.0	6.5	100	47.5	7.500	1	125
085110	**BT-35**	35	20.0	8.0	100	47.5	7.200	1	125
085120	**BT-50**	50	20.0	9.0	100	47.5	6.600	1	125
085130	**BT-70**	70	20.0	11.0	100	47.5	5.900	1	125
085140	**BT-95**	95	20.0	12.5	100	47.5	5.700	1	125
085150	**BT-120**	120	25.0	13.7	135	64.0	13.300	1	75
085160	**BT-150**	150	25.0	15.5	135	64.0	11.900	1	75
085170	**BT-185**	185	32.0	17.0	135	64.0	21.600	1	50
085180	**BT-240**	240	32.0	19.5	135	64.0	20.000	1	50
085190	**BT-300**	300	40.0	23.3	187	90.0	34.000	1	25
085200	**BT-400**	400	40.0	26.0	187	90.0	32.000	1	25





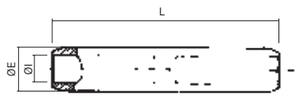
10303 RBT
Reducer aluminium joint

RBT joint manufactured from aluminium alloy of purity equal or higher than 99.5%. Incorporates a central buffer stop which divides the joint in two equal parts. Both holes contain neutral grease to avoid aluminium oxidation.

Code	Ref.	Section Al. (mm²)		Dimensions (mm)							x 100	Bag	Box
		1	2	ØE1	Øl1	ØE2	Øl2	L	L1	L2			
090100	**RBT-50/25**	50	25	20.0	9.0	20.0	6.5	100.0	47.5	47.5	7.000	1	125
090110	**RBT-95/50**	95	50	20.0	12.5	20.0	9.0	100.0	47.5	47.5	5.000	1	125
090120	**RBT-150/50**	150	50	25.0	15.5	20.0	9.0	118.5	64.0	47.5	9.000	1	75
090130	**RBT-150/95**	150	95	25.0	15.5	20.0	12.5	118.5	64.0	47.5	8.800	1	75
090140	**RBT-240/95**	240	95	32.0	19.5	20.0	12.5	118.5	64.0	47.5	13.600	1	50
090150	**RBT-240/150**	240	150	32.0	19.5	25.0	15.5	135.0	64.0	64.0	16.000	1	50

* Consult for other reducers.





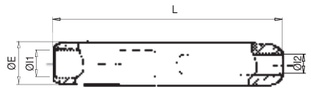
10304 RJA
Aluminium joint

RJA joint manufactured from aluminium alloy of purity equal or higher than 99.5%. Incorporates a central buffer stop which divides the joint in two equal parts. Both holes contain neutral grease to avoid aluminium oxidation.

According to UNE 211024 standard.
Have AENOR certified mark.*

Code	Ref.	Section (mm²)	Dimensions (mm)			x 100	Bag	Box
			ØE	Øl	L			
095100	**RJ1A-25**	25	20.0	6.5	106.5	7.900	1	125
095110	**RJ1A-35**	35	20.0	8.0	106.5	7.600	1	125
095120	**RJ1A-50***	50	20.0	9.0	106.5	7.160	1	125
095130	**RJ1A-70**	70	20.0	11.0	106.5	7.000	1	125
095140	**RJ1A-95***	95	20.0	12.5	106.5	5.700	1	125
095150	**RJ2A-120**	120	25.0	13.7	133.0	13.000	1	90
095160	**RJ2A-150***	150	25.0	15.5	133.0	11.300	1	90
095170	**RJ4A-185**	185	32.0	17.0	143.5	22.000	1	50
095180	**RJ4A-240***	240	32.0	19.5	143.5	19.000	1	50
095190	**RJ5A-300**	300	40.0	23.3	218.0	48.000	1	15
095200	**RJ5A-400***	400	40.0	26.0	218.0	43.000	1	15





10305 RJA
Reducer aluminium joint

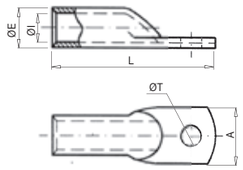
RJA joint manufactured from aluminium alloy of purity equal or higher than 99.5%. Incorporates a central buffer stop which divides the joint in two equal parts. Both holes contain neutral grease to avoid aluminium oxidation.

They are used for Al-Al or Al-Cu connections, ensuring that the aluminum conductor is always larger and the copper conductor is smaller. It is essential to properly seal any possible entry points for external agents to prevent oxidation.

Code	Ref.	Section Al. (mm²)		Dimensions (mm)				x 100	Bag	Box
		1	2	ØE	Øl1	Øl2	L			
100100	**RJ1A-50/25**	50	25	20	9.0	6.5	106.5	7.450	1	125
100140	**RJ1A-95/50**	95	50	20	12.5	9.0	106.5	6.340	1	125
100150	**RJ2A-150/50**	150	50	25	15.5	9.0	133.0	11.880	1	90
100160	**RJ2A-150/95**	150	95	25	15.5	12.5	133.0	10.900	1	90
100165	**RJ4A-240/50**	240	50	32	19.5	9.0	143.5	21.030	1	50
100170	**RJ4A-240/95**	240	95	32	19.5	12.5	143.5	20.080	1	50
100180	**RJ4A-240/150**	240	150	32	19.5	15.5	143.5	19.010	1	50

* Consult for other sizes.



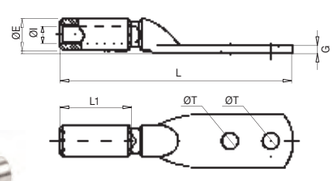


10401 TBE
Tinned aluminium cable lug

TBE cable lug manufactured from aluminium alloy tube of purity equal or higher than 99.5% with a tin-plated finish to improve electrical contact. Incorporates neutral grease to avoid aluminium oxidation.

Code	Ref.	Section (mm²)	Dimensions (mm)					x 100	Bag	Box
			ØE	Ø I	ØT	L	A			
115090	TBE-16	16	8.7	5.5	8.5	43.0	15.0	0.437	1	400
115100	TBE-25	25	11.0	6.5	8.5	52.0	16.0	0.860	1	300
115110	TBE-35	35	13.3	7.8	8.5	56.0	19.0	1.360	1	250
115120	TBE-50	50	15.2	9.7	13.0	68.0	22.0	1.880	1	200
115130	TBE-70	70	17.0	11.0	13.0	75.0	25.0	2.700	1	200
115140	TBE-95	95	19.3	12.5	13.0	81.0	28.0	3.880	1	150
115150	TBE-120	120	21.7	14.1	13.0	94.0	32.0	5.600	1	100
115160	TBE-150	150	25.0	15.5	13.0	104.0	35.0	8.200	1	75
115170	TBE-185	185	28.1	18.3	13.0	112.0	40.0	10.600	1	50
115180	TBE-240	240	32.0	19.5	15.0	125.0	44.0	17.200	1	50
115190	TBE-300	300	34.0	23.3	15.0	140.0	47.0	20.700	1	40





10402 TBEM/S
Tinned bimetallic cable lug

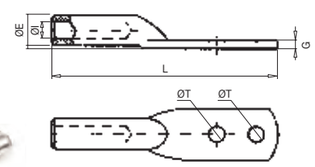
TBEM/S bimetallic cable lug manufactured from aluminium alloy tube of purity equal or higher than 99.5%. The complete cable lug surface is tinned by means of an electrolytic process. Incorporates neutral grease to avoid aluminium oxidation. It is designed for underground cable connections.

Underground cables

Code	Ref.	Section (mm²)	Dimensions (mm)						x 100	Bag	Box
			ØE	Ø I	ØT	L1	G	L			
125120	TBEM/S-50	50	20.0	9.0	13.0	47.5	7.7	170	12.000	1	60
125140	TBEM/S-95	95	20.0	12.5	13.0	47.5	7.7	170	11.200	1	50
125160	TBEM/S-150	150	25.0	15.5	13.0	64.5	11.6	190	19.400	1	40
125180	TBEM/S-240	240	32.0	19.5	13.0	64.5	11.6	199	27.800	1	30

* For other sizes, please inquire. Supplied without screws.





10402 TBEM/A
Tinned bimetallic cable lug

TBEM/A bimetallic cable lug manufactured from aluminium alloy tube of purity equal or higher than 99.5%. The complete cable lug surface is tinned by means of an electrolytic process. Incorporates neutral grease to avoid aluminium oxidation. It is designed for overhead cable connection.

Overhead cables

Code	Ref.	Section (mm²)	Dimensions (mm)					x 100	Bag	Box
			ØE	Ø I	ØT	G	L			
125190	TBEM/A-30	LA-30	20.0	7.6	13.0	7.7	170	12.200	1	80
125200	TBEM/A-56	LA-56	20.0	10.0	13.0	7.7	170	11.800	1	80
125210	TBEM/A-78	LA-78	20.0	12.0	13.0	7.7	170	10.600	1	80
125230	TBEM/A-110	LA-110	25.0	14.5	13.0	11.6	190	19.800	1	40
125250	TBEM/A-180	LA-180	32.0	18.3	13.0	11.6	199	32.500	1	30

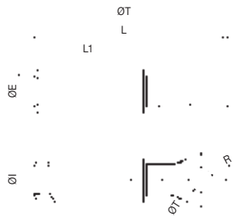
* For other sizes, please inquire. Supplied without screws.



10402 Screw kit

Code	Ref.	Content
125500	SCREW KIT M-12 x 40 INOX	2 screws, 4 nuts and 4 stainless steel washers.
125600	SCREW KIT M-12 x 50 INOX	





10403 TDC/S
Bimetallic cable lug

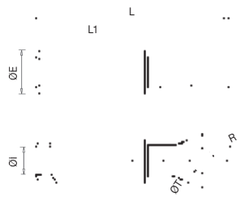
TDC/S bimetallic cable lug manufactured from aluminium alloy bar of purity equal or higher than 99.5%. The complete cable lug surface is tinned by means of an electrolytic process.
Incorporates neutral grease to avoid aluminium oxidation.

According to UNE 211024-2 standard.
Have AENOR certified mark.*

Code	Ref.	Section (mm²)	Dimensions (mm)						x 100	Bag	Box
			ØE	ØI	ØT	R	L1	L			
111085	TDC/S-16/10 [1]	16	16.0	5.5	10.7	13.0	47.1	75.0	-	1	125
111090	TDC/S-16/12	16			12.9				5.300	1	125
111099	TDC/S-25/10 [1]	25		6.5	10.7				-	1	125
111100	TDC/S-25/12	25			12.9				5.000	1	125
111110	TDC/S-35/12 [1]	35		8.0					4.800	1	125
111118	TDC/S-50/8*	50	20.0	9.0	9.0	13.0	48.0	75.0	4.940	1	125
111119	TDC/S-50/10*	50			10.7				4.890	1	125
111120	TDC/S-50/12 * [1]	50			12.9				4.840	1	125
111130	TDC/S-70/12[1]	70		11.0					4.300	1	125
111139	TDC/S-95/10*	95		12.5	10.7				4.250	1	125
111140	TDC/S-95/12 * [1]	95			12.9				4.240	1	125
111150	TDC/S-120/12 [1]	120	25.0	13.7	12.9	15.0	65.0	98.0	9.210	1	80
111159	TDC/S-150/10 *	150		15.5	10.7				8.740	1	80
111160	TDC/S-150/12 * [1]	150							8.640	1	80
										1	
111170	TDC/S-185/12 * [1]	185	32.0	17.0	12.9	18.0	65.0	104.0	15.000	1	50
111179	TDC/S-240/10 *	240		19.5	10.7				14.625	1	50
111180	TDC/S-240/12 * [1]	240			12.9				14.500	1	50
111184	TDC/S-300/10	300	40.0	23.3	10.7	20.0	100.0	145.0	30.750	1	32
111185	TDC/S-300/12	300			12.9				30.600	1	32
111186	TDC/S-300/16 [1]	300			16.7				28.400	1	32
111189	TDC/S-400/10	400		26.0	10.7				28.250	1	32
111190	TDC/S-400/12	400			12.9				-	1	32
111191	TDC/S-400/16 [1]	400			16.7				-	1	32

(*) Dimensions and tolerances according to UNE 211024.
(1) Dimensions according to DMA-C33-853/N.





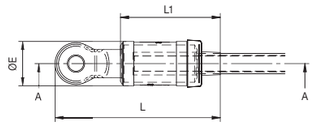
10403 TDC/A
Bimetallic cable lug

TDC/A bimetallic cable lug manufactured from aluminium alloy bar of purity equal or higher than 99.5%. The complete cable lug surface is tinned by means of an electrolytic process.
Incorporates neutral grease to avoid aluminium oxidation. It is especially designed for overhead cable connections.

For overhead cable

Code	Ref.	Section (mm²)	Dimensions (mm)						x 100	Bag	Box
			ØE	ØI	ØT	R	L1	L			
111200	TDC/A-30/12	LA-30	20.0	7.6	12.9	13.0	47.1	75.0	5.400	1	125
111205	TDC/A-54.6/12	LA-54.6		10.0					4.800	1	125
111207	TDC/A-56/8	LA-56			9.0				-	1	-
111210	TDC/A-56/12	LA56			12.9				4.800	1	125
111220	TDC/A-78/12	LA-78		12.0					4.520	1	125
111225	TDC/A-80/12	LA-80		12.5					4.480	1	125
111230	TDC/A-110/12	LA-110	25.0	14.5	12.9	15.0	48.0	75.0	9.300	1	80
111235	TDC/A-145/12	LA-145		16.5					-	1	-
111240	TDC/A-180/12	LA-180	32.0	18.3	12.9	18.0	70.7	109.0	15.900	1	50





10404 TDC/S KIT
Insulated bimetallic terminals

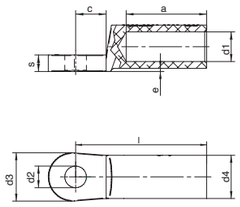
The kit consists of:

- TDC/S terminal manufactured from aluminium alloy bar with a purity of 99.5% or higher. Featuring an electrolytic tin-plating treatment. Complies with the UNE 211024-2 standard and AENOR certified.
- Insulating cover in synthetic rubber.
- Phase or neutral identification rings.
- Connection washers.

Code	Ref.	Section (mm²)	Strip length	Dimensions (mm)			x 100	Bag	Box
				ØE	L	L1			
111118 K	TDC/S-50/8 K	50	45	26	100	51	8.000	1	40
111119 K	TDC/S-50/10 K						8.700	1	40
111120 K	TDC/S-50/12 K						8.300	1	40
111139 K	TDC/S-95/10 K	95	45				8.100	1	40
111140 K	TDC/S-95/12 K						7.800	1	40
111159 K	TDC/S-150/10 K	150	60	31	128	68	12.000	1	30
111160 K	TDC/S-150/12 K						12.700	1	30
111180 K	TDC/S-240/12 K	240	60	38	140	86	19.300	1	25

BIMETALLIC CONNECTORS





10412 TBE/D
DIN 46329 tinned aluminium cable lug

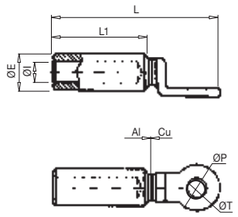
TBE/D bimetallic cable lug manufactured from aluminium alloy bar of purity equal or higher than 99.5%. The complete cable lug surface is tinned by means of an electrolytic process. Incorporates neutral grease to avoid aluminium oxidation. It is designed for underground cable connections.

According to DIN 46329.

Code	Ref.	Section (mm²)	Dimensions (mm)										x 100	Bag	Box
			Screw Ø	a	c	d1	d2	d3	d4	e	l	s			
115351	TBE/D-25/8	25	8	30	15.5	6.8	8.4	25	12	2	50	4	-	1	-
115352	TBE/D-25/10		10	30	15.5	6.8	10.5	25	12	2	50	4	-	1	-
115353	TBE/D-25/12		12	30	15.5	6.8	13	25	12	2	50	4	-	1	-
115354	TBE/D-35/8	35	8	42	15.5	8	8.4	25	14	2	62	4	-	1	-
115355	TBE/D-35/10		10	42	15.5	8	10.5	25	14	2	62	4	-	1	-
115356	TBE/D-35/12		12	42	15.5	8	13	25	14	2	62	4	-	1	-
115357	TBE/D-50/8	50	8	42	15.5	9.8	8.4	25	16	2	62	5.5	-	1	-
115358	TBE/D-50/10		10	42	15.5	9.8	10.5	25	16	2	62	5.5	-	1	-
115359	TBE/D-50/12		12	42	15.5	9.8	13	25	16	2	62	5.5	-	1	-
115360	TBE/D-70/8	70	8	52	15.5	11.2	8.4	25	18.5	2	72	5.5	-	1	-
115361	TBE/D-70/10		10	52	15.5	11.2	10.5	25	18.5	2	72	5.5	-	1	-
115319	TBE/D-70/12		12	52	15.5	11.2	13	25	18.5	2	72	5.5	-	1	-
115362	* TBE/D-95/8	95	8	56	15.5	13.2	8.4	25	22	2	75	6	-	1	-
115363	TBE/D-95/10		10	56	15.5	13.2	10.5	25	22	2	75	6	-	1	-
115364	TBE/D-95/12		12	56	15.5	13.2	13	25	22	2	75	6	-	1	-
115365	* TBE/D-95/16		16	56	15.5	13.2	17	25	22	2	75	6	-	1	-
115366	TBE/D-120/10	120	10	56	20	14.7	10.5	30	23	2	80	7.5	-	1	-
115367	TBE/D-120/12		12	56	20	14.7	13	30	23	2	80	7.5	-	1	-
115368	TBE/D-120/16		16	56	20	14.7	17	30	23	2	80	7.5	-	1	-
115369	TBE/D-150/10	150	10	60	20	16.3	10.5	30	25	2.5	90	8	-	1	-
115370	TBE/D-150/12		12	60	20	16.3	13	30	25	2.5	90	8	-	1	-
115371	TBE/D-150/16		16	60	20	16.3	17	30	25	2.5	90	8	-	1	-
115372	TBE/D-185/10	180	10	60	20	18.3	10.5	30	28.5	2.5	91	8	-	1	-
115339	TBE/D-185/12		12	60	20	18.3	13	30	28.5	2.5	91	8	-	1	-
115373	TBE/D-185/16		16	60	20	18.3	17	30	28.5	2.5	91	8	-	1	-
115374	TBE/D-240/12	240	12	70	24	21	13	38	32	2.5	103	11	-	1	-
115375	TBE/D-240/16		16	70	24	21	17	38	32	2.5	103	11	-	1	-
115376	TBE/D-240/20		20	70	24	21	21	38	32	2.5	103	11	-	1	-
115349	TBE/D-300/12	300	12	70	24	23.3	13	38	34	2.5	103	13	-	1	-
115377	TBE/D-300/16		16	70	24	23.3	17	38	34	2.5	103	13	-	1	-
115378	TBE/D-300/20		20	70	24	23.3	21	38	34	2.5	103	13	-	1	-
115379	TBE/D-400/12	400	12	73	24	26	13	38	38.5	4	116	14	-	1	-
115380	TBE/D-400/16		16	73	24	26	17	38	38.5	4	116	14	-	1	-
115381	TBE/D-400/20		20	73	24	26	21	38	38.5	4	116	14	-	1	-
115382	TBE/D-500/12	500	12	79	24	29	13	44	44	5	122	15	-	1	-
115383	TBE/D-500/16		16	79	24	29	17	44	44	5	122	15	-	1	-
115384	TBE/D-500/20		20	79	24	29	21	44	44	5	122	15	-	1	-

* Not according to DIN 46329





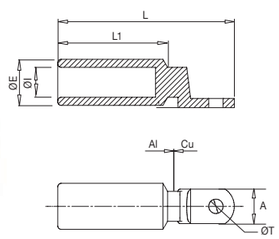
10405 TBF
Bimetallic cable lug

TBF bimetallic cable lug manufactured from aluminium alloy of purity equal or higher than 99.5%. The palm is manufactured with forged copper. The two parts of the bimetallic cable lug are joined through a friction stir welding process. Incorporates neutral grease to avoid aluminium oxidation.

Comply with the NF C33-090-1 standard. Electric and mechanical tests according to CEI 61238-1 standard.

Code	Ref.	Section (mm²)	Dimensions (mm)						x 100	Bag	Box
			ØE	ØI	L1	L	ØT	ØP			
110100	TBF-16	16	20.0	5.5	47.5	86.0	12.8	25.0	7.600	1	125
110110	TBF-25	25	20.0	6.5	47.5	86.0	12.8	25.0	7.200	1	125
110120	TBF-35	35	20.0	8.0	47.5	86.0	12.8	25.0	7.200	1	125
110130	TBF-50	50	20.0	9.0	47.5	86.0	12.8	25.0	7.000	1	125
110140	TBF-70	70	20.0	11.0	47.5	86.0	12.8	25.0	7.000	1	125
110150	TBF-95	95	20.0	12.5	47.5	86.0	12.8	25.0	6.300	1	125
110160	TBF-120	120	25.0	13.7	64.0	110.0	12.8	30.0	13.500	1	80
110170	TBF-150	150	25.0	15.5	64.0	110.0	12.8	30.0	12.200	1	80
110180	TBF-185	185	32.0	17.0	64.0	110.0	12.8	30.0	20.100	1	50
110190	TBF-240	240	32.0	19.5	64.0	110.0	12.8	30.0	22.600	1	50
110200	TBF-300	300	40.0	23.3	100.0	154.0	16.5	36.0	33.400	1	32
110210	TBF-400	400	40.0	26.0	100.0	154.0	16.5	36.0	30.200	1	32



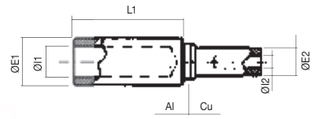


10406 TBPE
Bimetallic cable lug

The TBPE tube is made of aluminum alloy of purity equal or higher than 99.5% and the blade is made of electrolytic copper with a purity greater than 99.9%. Through a friction welding process, both materials are joined to form the bimetallic connector.
Incorporates neutral grease to avoid aluminium oxidation.

Code	Ref.	Section (mm²)	Dimensions (mm)						x 100	Bag	Box
			ØE	ØI	ØT	A	L1	L			
112190	TBPE-240	240	32	19.5	12.5	25	67	116	-	1	-
112200	TBPE-300	300	34	23.3	12.5	30	73	130	-	1	-
112210	TBPE-400	400	40	26	12.5	30	95.5	153.5	-	1	-





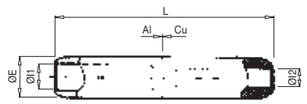
10407 MBI
Bimetallic joint

MBI bimetallic joint manufactured from aluminium alloy of purity equal or higher than 99.5% and electrolytic copper tube. The two parts of the bimetallic connector are joined through a friction stir welding process. Incorporates neutral grease in the aluminium part hole to avoid its oxidation.

Code	Ref.	Section (mm²)		Dimensions (mm)					x 100	Bag	Box
		Al	Cu	ØE1	Øl1	L1	ØE2	Øl2			
130100	MBI-50/25	50	25	20.0	9.0	48.0	12.2	7.0	6.700	1	30
130110	MBI-95/50	95	50	20.0	12.5	48.0	12.2	9.5	5.100	1	30
130120	MBI-150/50	150	50	25.0	15.5	65.0	12.2	9.5	8.500	1	20
130130	MBI-150/95	150	95	25.0	15.5	65.0	21.0	13.0	14.300	1	20
130135	MBI-240/50	240	50	32.0	19.5	65.0	12.2	9.5	12.900	1	10
130137	MBI-240/95	240	95	32.0	19.5	65.0	21.0	13.0	18.000	1	10
130140	MBI-240/150	240	150	32.0	19.5	65.0	21.0	16.0	16.500	1	10

Other sections under request.





10408 RJAU
Bimetallic joint

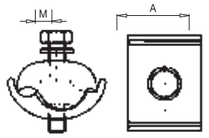
RJAU bimetallic joint manufactured from aluminium alloy of purity equal or higher than 99.5% and electrolytic copper tube. The two parts of the bimetallic connector are joined through a friction stir welding process. Incorporates neutral grease in the aluminium part hole to avoid its oxidation. Designed for electrical connections.

Acording to NF C33-090-1 standard.

Code	Ref.	Section (mm²)		Dimensions (mm)				x 100	Bag	Box
		Al	Cu	ØE	Øl1	Øl2	L			
135100	RJ1AU50/25	50	25	20	9.0	7.0	106.5	18.402	1	25
135110	RJ1AU95/50	95	50	20	12.5	9.5	106.5	15.930	1	25
135120	RJ2AU150/50	150	50	25	15.5	9.5	133.0	28.130	1	15
135130	RJ2AU150/95	150	95	25	15.5	13.0	133.0	25.080	1	15
135134	RJ4AU240/50	240	50	32	19.5	9.5	143.5	49.590	1	8
135137	RJ4AU240/95	240	95	32	19.5	13.0	143.5	46.409	1	8
135140	RJ4AU240/150	240	150	32	19.5	16.0	143.5	43.009	1	8

Other sections under request.



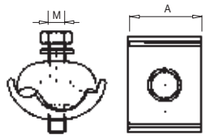


10501 LB
Bolt-fastened compression clamp

LB clamps are manufactured from aluminium smelting. Stainless steel screw.

Code	Ref.	Main		Tap		Dimensions (mm)		Kg x 100	Bag	Box
		Max.	Min.	Max.	Min.	A	M			
155100	LB-1	50	6	35	6	29	6	4.060	10	40
155110	LB-2	120	50	35	6	35	8	10.950	10	20
155120	LB-3	185	50	70	10	44	10	18.250	10	10
155130	LB-4	70	25	70	25	32	8	9.400	10	20
155140	LB-5	150	95	95	25	41	10	16.600	5	10
155150	LB-6	150	70	150	70	40	10	16.550	5	10
155160	LB-7	240	95	240	50	50	12	27.300	5	5





10502 LBE-ID
Bolt-fastened tinplated compression clamp

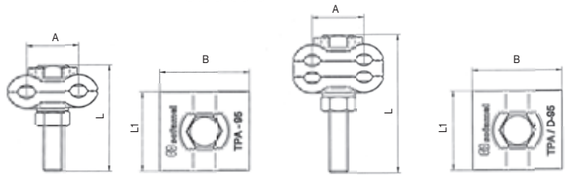
LBE-ID clamps are made from cast aluminium with a 20 µ tinplated finish. Stainless steel screw.

Code	Ref.	Main		Tap		Dimensions (mm)		Kg x 100	Bag	Box
		Max.	Min.	Max.	Min.	A	M			
155001	LBE-2-ID	120	50	35	6	29	8	10.950	1	25
155002	LBE-3-ID	185	50	70	10	35	10	18.250	1	10
155003	LBE-4-ID	70	25	70	25	44	8	9.400	1	25



10501 TPA and TPA/D
Bolt-fastened compression clamp

TPA and TPA/D clamps are made from aluminium alloy with a 20 µ tinplated finish, M12 stainless steel screw.



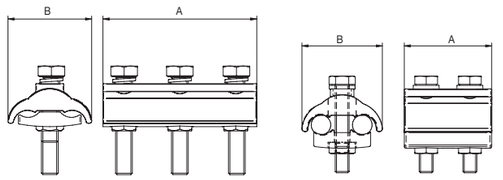
Code	Ref.	Section	Dimensions (mm)				Kg x 100	Bag	Box
			A	B	L	L1			
156100	TPA-95	2 x 95	33	57	68	50	18.48	1	10
156110	TPA/D-95	4 x 95	33	57	88	50	26.04	1	5

COMPRESSION AND MECHANICAL CLAMPS



10503 PGC/A
Bolt-fastened compression clamp

PGC/A mechanical clamps are manufactured in cast aluminium.
Fasteners in stainless steel.

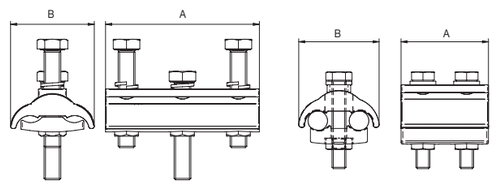


Code	Ref.	Main		Dimensions (mm)		Kg x 100	Bag	Box
		Min.	Max.	A	B			
155206	PGC/A2-8	16	150	80	50	13.5	1	0
155201	PGC/A3-10	35	300	110	60	54.8	1	0



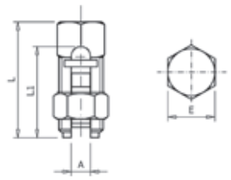
10503 PGC/B
Bolt-fastened tinned compression clamp

PGC/B bimetallic clamps are manufactured in cast aluminium with 20 µm tinned finish. Fasteners in stainless steel.



Code	Ref.	Main AL		Tap CU		Dimensions (mm)		Kg x 100	Bag	Box
		Min.	Max.	Min.	Max.	A	B			
155205	PGC/B2-8	25	150	10	95	80	50	14.00	1	0
155203	PGC/B3-10	35	300	25	240	110	60	55.40	1	0



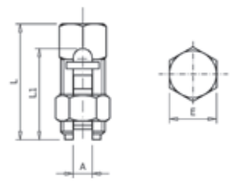


10504 APB
Bimetallic split-bolt connector

APB split-bolt connector manufactured from brass with tinplated finish to improve electrical contact.Incorporates a buffer stop to differentiate cable connections.

Code	Ref.	Main		Tap		Dimensions (mm)				x 100	Bag	Box
		Max.	Min.	Max.	Min.	L	L1	E	A			
160100	APB-25/25	25	16	25	2.5	42.0	34.0	16.9	7.2	7.480	10	60
160110	APB-35/35	35	16	35	2.5	42.0	34.0	16.9	7.4	8.034	10	60
160120	APB-50/50	50	25	50	2.5	46.6	37.6	18.0	9.6	8.800	10	40
160130	APB-70/70	70	35	70	2.5	49.0	42.5	20.0	11.0	9.600	10	40
160140	APB-120/120	120	50	120	10	61.1	53.2	26.9	15.3	11.200	5	15



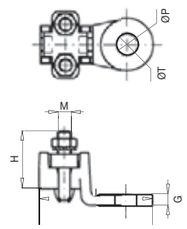


10505 APC
Copper split-bolt connector

APC split-bolt connector manufactured from brass with a copperplated finish to improve electrical contact.

Code	Ref.	Main		Tap		Dimensions (mm)				x 100	Bag	Box
		Max.	Min.	Max.	Min.	L	L1	E	A			
165010	APC-6/6	6	4	6	1.5	24.0	19.0	10.0	3.6	1.670	25	200
165020	APC-10/6	10	6	10	2.5	27.4	21.8	12.0	4.5	2.790	25	150
165030	APC-16/16	16	10	16	2.5	34.0	22.7	13.0	5.6	3.820	25	100
165040	APC-25/25	25	16	25	2.5	41.8	33.1	17.0	7.2	6.840	10	50
165090	APC-35/35	35	16	35	2.5	41.8	33.8	17.0	7.4	6.640	10	40
165100	APC-50/50	50	25	50	2.5	46.4	38.0	18.0	9.6	7.780	10	40
165110	APC-70/70	70	35	70	2.5	49.4	42.2	20.0	10.8	8.500	10	30
165115	APC-95/95	95	50	95	10	53.7	46.4	24.0	12.1	9.300	10	20
165120	APC-120/120	120	50	120	10	60.5	53.5	26.7	15.3	10.100	5	15
165130	APC-185/185	185	70	185	70	69.1	61.0	30.0	17.6	11.000	5	10
165140	APC-240/240	240	70	240	70	75.6	68.0	35.4	21.5	12.500	5	10



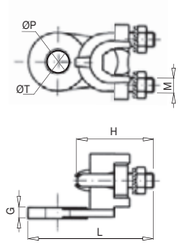


10601 TR
Setscrew joint straigth entry

TR screw terminal manufactured from brass with galvanized steel screws and cable ties.

Code	Ref.	Ø Bar (mm)		Cable (mm²)		Dimensions (mm)						x 100	Bag	Box
		Max.	Min.	Max.	Min.	H	L	M	ØP	ØT	G			
180100	TR-10/50	10	4	70	10	31	52	5	26.5	13	5	6.500	-	40
180110	TR-25/120	14	6	120	16	42	68	8	32.5	13	6	18.600	-	20
180120	TR-70/150	16	10	150	25	54	77	8	35.5	13	6	23.400	-	15
180130	TR-150/240	20	14	240	120	42	78	8	41.0	16	6	22.100	-	10
180140	TR-240/400	24	20	400	240	53	105	10	54.0	18	8	47.700	-	5



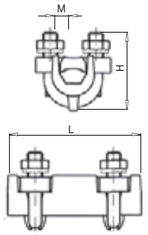


10602 TRE
Setscrew 90° joint entry

TRE screw terminal manufactured from brass with galvanized steel screws and cable ties. Its particular orientation makes it suitable for installations where.

Code	Ref.	Ø Bar (mm)		Cable (mm²)		Dimensions (mm)						x 100	Bag	Box
		Max.	Min.	Max.	Min.	H	L	M	ØP	ØT	G			
185100	TRE-10/50	10	4	70	10	31	57	5	26.5	12.5	5.5	6.700	-	40
185110	TRE-25/120	14	6	120	16	42	68	8	32.5	12.5	6.0	18.500	-	20



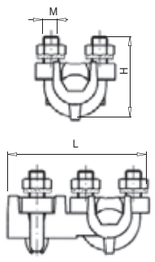


10603 TRM
Setscrew joint

TRM setscrew joint manufactured from brass with galvanized steel yokes and screws.

Code	Ref.	Ø Bar (mm)		Cable (mm²)		Dimensions (mm)			Kg x 100	Bag	Box
		Max.	Min.	Max.	Min.	H	L	M			
190100	TRM-10/50	10	4	50	10	31	47	5	8.600	-	35
190110	TRM-25/120	14	6	120	16	42	65	8	25.350	-	15
190120	TRM-70/150	16	10	150	25	55	70	8	33.800	-	10





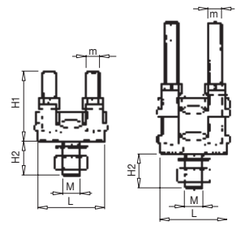
10604 TRT
Tap setscrew joint

TRT setscrew joint manufactured from brass with galvanized steel yokes and screws.

Code	Ref.	Ø Bar (mm)		Cable (mm²)		Dimensions (mm)			Kg x 100	Bag	Box
		Max.	Min.	Max.	Min.	H	L	M			
195100	TRT-10/50	10	4	50	10	31	52.0	5	8.800	-	35
195110	TRT-25/120	14	6	120	16	42	73.0	8	26.700	-	15
195120	TRT-70/150	16	10	150	25	52	82.5	8	34.700	-	10

SETSCREW CONNECTORS





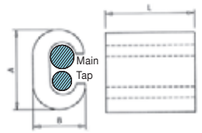
10605 TRF
Turret bimetallic clamp

TRF and TRF/D bimetallic clamp manufactured from brass with tinplated finish to improve electrical contact. Suitable for electrical panel boards.

Code	Ref.	Ø Bar (mm)		Cable (mm²)		Dimensions (mm)					Kg x 100	Bag	Box
		Max.	Min.	Max.	Min.	H1	H2	L	M	m			
200100	TRF-25/50	10	3	50	4	29	15.5	29	6	5	5.840	-	50
200110	TRF-50/80	12	4	95	6	34	1.08	33	8	6	9.900	-	30
200120	TRF-80/150	16	7	150	25	41	18.5	42	10	8	17.500	-	20
200130	TRF-150/240	20	10	240	50	48	20.0	52	12	10	32.800	-	10
200140	TRF/D-25/50	10	3	50	4	34	15.5	29	6	5	7.400	-	40
200150	TRF/D-50/80	12	4	95	6	65	16.5	33	8	6	15.700	-	20
200160	TRF/D-80/150	16	7	150	25	76	18.5	42	10	8	27.000	-	15
200170	TRF/D-150/240	20	10	240	50	88	20.0	52	12	10	57.000	-	6

CRIMPS





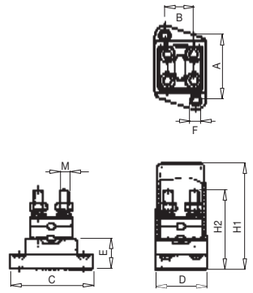
10701 CRA
Aluminium compression clamp

CRA compression clamp manufactured from aluminium alloy of purity equal or higher than 99.5%. High versatility in different applications.

Code	Ref.	Main		Tap		Dimensions (mm)			x 100	Bag	Box
		Max.	Min.	Max.	Min.	A	B	L			
140100	**CRA-1**	35	25	35	25	25.0	16.4	38.5	2.525	1	150
140110	**CRA-2**	70	50	50	50	35.0	22.0	65.0	6.880	1	100
140120	**CRA-3**	120	95	35	10	41.0	25.5	65.0	11.350	1	75
140122	**CRA-3A**	120	95	120	95	-	-	-	11.650	1	75
140130	**CRA-4**	185	150	95	70	51.9	31.5	65.0	12.150	1	50

STUDDED CLAMPS

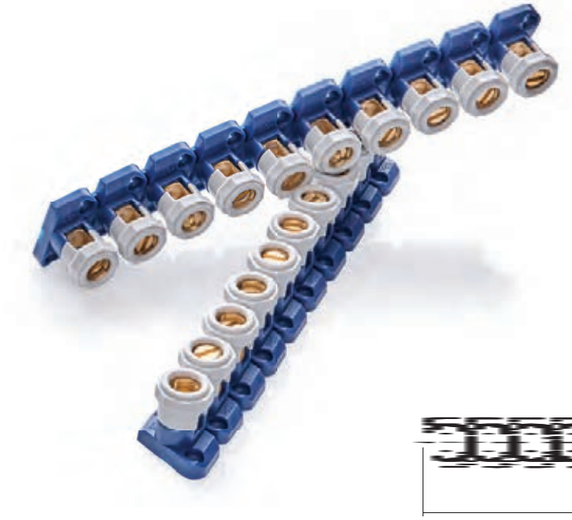




10801 BEB
Bimetallic clamp

BEB bimetallic clamp manufactured from brass with tinplated finish. The base is made of bakelite which grants a high temperature resistance.

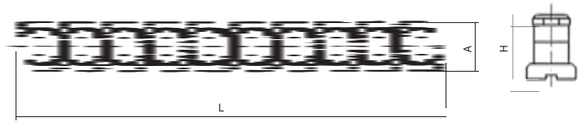
Code	Ref.	Section (mm²)		Dimensions (mm)									x 100	Bag	Box
		Max.	Min.	A	B	C	D	E	F	H1	H2	M			
220100	**BEB-63**	70	70	42	22	56	34	20	4.0	63	53	6	16.200	-	12
220110	**BEB-95**	95	95	54	30	72	44	22	5.5	76	72	7	30.800	-	6
220120	**BEB-150**	150	150	66	40	84	54	25	5.5	87	82	7	45.600	-	3
220130	**BEB-240**	240	240	82	45	101	64	26	6.5	102	96	8	72.200	-	2



10802 ADRI
Polyamide strip block

ADRI strip block manufactured from 6.6 auto-extinguishing polyamide according to CE Directive. All terminals are supplied in ten-pole strips and are suitable for connections and panel boards applications.

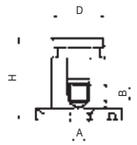
CE



Code	Ref.	Section (mm²)	Dimensions (mm)			x 100	Bag	Box
			A	H	L1			
231100	**ADRI-6**	6	28.5	19.5	164	5.340	-	10
231110	**ADRI-10**	10	28.5	24.0	204	11.600	-	10
231120	**ADRI-16**	16	28.5	27.2	214	14.540	-	10
231130	**ADRI-25**	25	28.5	29.3	224	16.660	-	10
231140	**ADRI-35**	35	28.5	34.2	261	28.660	-	10

STUDDED CLAMPS







10803 BUS
Polyamide one-pole strip block

BUS strip block manufactured from 6.6 auto-extinguishing polyamide according to CE Directive. All terminals are linkable between them and are suitable for connections and panel boards applications.

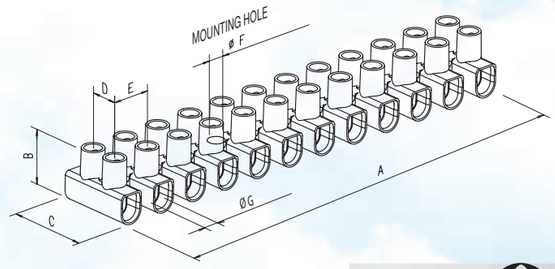
Code	Ref.	Section (mm²)	Dimensions (mm)						x 100	Bag	Box
			A	B	D	H	L	L1			
233130	BUS-10/16	10/16	6.5	10.0	25.0	40.0	33.0	48.0	2.600	-	50
233150	BUS-25/35	25/35	8.5	12.0	25.0	43.0	33.0	48.0	3.400	-	40
233160	BUS-50	50	10.0	14.5	31.5	52.0	40.0	58.0	5.300	-	25
233170	BUS-70	70	12.0	26.0	38.0	68.0	47.0	69.0	8.000	-	20
233180	BUS-95	95	13.0	30.0	45.0	56.0	51.0	83.0	11.300	-	15
233190	BUS-120	120	14.0	34.0	48.0	61.0	54.0	83.0	75.700	-	15
233200	BUS-150	150	21.0	34.0	52.0	80.0	73.5	122.0	14.100	-	4

TERMINAL STRIPS

SKL

- New polypropylene terminal strip CE
- Easy to divide
- Have N AENOR certificate mark





10804 SKL
Terminal strip

SKL terminal strip manufactured from polypropylene with additives.
In accordance to RoHs standard.

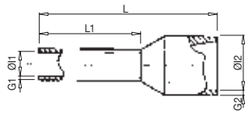


ÖVE DVE N CE

In accordance to 60998-1 standard and EN 60998-2-1 standard and all main european certificate.

Code	Ref.	Colour	Section (mm²)	Metrics	Dimensions (mm)							x 100	Bag	Box
					A	B	C	ØG	E	D	ØF			
315350	SKL-4	◇	4	M2.6	94.9	13.0	16.6	3.2	8.1	6.4	2.6	19.0	10	500
315360	SKL-6	◇	6	M3.0	116.5	14.9	18.9	3.6	10.0	7.3	3.4	26.5	10	250
315370	SKL-10	◇	10	M3.5	133.8	17.3	23.4	4.3	11.5	10.0	3.7	43.6	10	250
315380	SKL-16	◇	16	M4.0	174.5	20.7	25.0	5.5	15.0	11.0	4.9	76.8	10	100
315390	SKL-25	◇	25	M5.0	187.3	28.0	30.0	7.0	16.0	11.5	4.5	116.0	10	50
315400	SKL-35	◇	35	M5.0	211.0	29.6	36.4	8.0	18.0	15.0	4.5	174.6	10	50
315410	SKL-4N	◆	4	M2.6	94.9	13.0	16.6	3.2	8.1	6.4	2.6	19.0	10	500
315420	SKL-6N	◆	6	M3.0	116.5	14.9	18.9	3.6	10.0	7.3	3.4	26.5	10	250
315430	SKL-10N	◆	10	M3.5	133.8	17.3	23.4	4.3	11.5	10.0	3.7	43.6	10	250
315440	SKL-16N	◆	16	M4.0	174.7	20.7	25.0	5.5	15.0	11.0	4.9	76.8	10	100
315450	SKL-25N	◆	25	M5.0	187.3	28.0	30.0	7.0	16.0	11.5	4.5	116.0	10	50
315460	SKL-35N	◆	35	M5.0	211.0	29.6	36.4	8.0	18.0	15.0	4.5	174.6	10	50





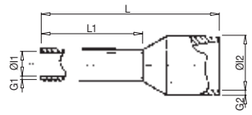
10901 APF
Cord end terminal

APF cord end terminal manufactured from electrolytic copper capillary tube with a tinplated finish to improve electrical contact. The insulating part is made of nylon (PA).

Sec. (mm²)	L1	Code	Ref.	Colour	Dimensions (mm)						x 1.000	Bag	Box
				F	L	L1	Ø11	G1	Ø12	G2			
0.50	8 10	**245100** **260100**	**APF-0,50/8** **APF-0,50/10**	WHITE	14.5 16.0	8 10	1.0 1.0	0.15 0.15	2.6 2.6	0.25 0.25	0.088 0.112	100 100	4000 3500
0.75	8 12	**245110** **260110**	**APF-0,75/8** **APF-0,75/12**	BLUE	14.6 18.4	8 12	1.2 1.2	0.15 0.15	2.8 2.8	0.25 0.25	0.100 0.123	100 100	4000 3500
1	8 12	**245120** **260120**	**APF-1,00/8** **APF-1,00/12**	RED	14.6 18.4	8 12	1.4 1.4	0.15 0.15	3.0 3.0	0.25 0.25	0.116 0.157	100 100	3500 3000
1.5	8 18	**245130** **260130**	**APF-1,50/8** **APF-1,50/18**	BLACK	14.6 24.4	8 18	1.7 1.7	0.15 0.15	3.5 3.5	0.25 0.25	0.134 0.213	100 100	3000 2500
2.5	8 18	**245140** **260140**	**APF-2,50/8** **APF-2,50/18**	GREY	15.2 25.0	8 18	2.2 2.2	0.15 0.15	4.0 4.0	0.25 0.25	0.165 0.258	100 100	2500 2000
4	10 18	**245150** **260150**	**APF-4,00/10** **APF-4,00/18**	ORANGE	16.5 25.5	10 18	2.8 2.8	0.20 0.20	4.4 4.4	0.30 0.30	0.231 0.372	100 100	2000 1600
6	12 18	**245160** **260160**	**APF-6,00/12** **APF-6,00/18**	GREEN	20.0 26.0	12 18	3.5 3.5	0.20 0.20	6.3 6.3	0.30 0.30	0.388 0.490	100 100	1000 800
10	12 18	**245170** **260170**	**APF-10,00/12** **APF-10,00/18**	BROWN	21.5 27.5	12 18	4.5 4.5	0.20 0.20	7.6 7.6	0.40 0.40	0.556 0.720	100 100	800 400
16	12 18	**245180** **260180**	**APF-16,00/12** **APF-16,00/18**	IVORY	22.2 28.2	12 18	5.8 5.8	0.20 0.20	8.8 8.8	0.40 0.40	0.762 0.963	100 100	500 300
25	16 22	**245190** **260190**	**APF-25,00/16** **APF-25,00/22**	IVORY	29.0 35.0	16 22	7.3 7.3	0.20 0.20	11.2 11.2	0.40 0.40	1.134 1.415	50 50	350 200
35	16 22	**245200** **260200**	**APF-35,00/16** **APF-35,00/22**	RED	30.0 39.0	16 22	8.3 8.3	0.20 0.20	12.5 12.5	0.50 0.50	1.308 1.693	50 50	250 200
50	20 25	**245210** **260210**	**APF-50,00/20** **APF-50,00/25**	BLUE	36.0 40.0	20 25	10.3 10.3	0.30 0.30	15.0 15.0	0.60 0.60	2.300 2.784	50 25	150 125

CORD END TERMINALS



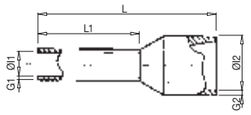


10902 APF
Cord end terminal

APF cord end terminal manufactured from electrolytic copper capillary tube with a tinplated finish to improve electrical contact. The insulating part is made of nylon (PA).

Sec. (mm²)	L1	Code	Ref.	Colour	Dimensions (mm)						x 1.000	Bag	Box
				W	L	L1	Ø11	G1	Ø12	G2			
0.50	8 10	**246100** **261100**	**APF-0,50W/8** **APF-0,50W/10**	ORANGE	14.5 16.0	8 10	1.0 1.0	0.15 0.15	2.6 2.6	0.25 0.25	0.088 0.112	100 100	4000 3500
0.75	8 12	**246110** **261110**	**APF-0,75W/8** **APF-0,75W/12**	WHITE	14.6 18.4	8 12	1.2 1.2	0.15 0.15	2.8 2.8	0.25 0.25	0.100 0.123	100 100	4000 3500
1	8 12	**246120** **261120**	**APF-1,00W/8** **APF-1,00W/12**	YELLOW	14.6 18.4	8 12	1.4 1.4	0.15 0.15	3.0 3.0	0.25 0.25	0.116 0.157	100 100	3500 3000
1.5	8 18	**246130** **261130**	**APF-1,50W/8** **APF-1,50W/18**	RED	14.6 24.4	8 18	1.7 1.7	0.15 0.15	3.5 3.5	0.25 0.25	0.134 0.213	100 100	3000 2500
2.5	8 18	**246140** **261140**	**APF-2,50W/8** **APF-2,50W/18**	BLUE	15.2 25.0	8 18	2.2 2.2	0.15 0.15	4.0 4.0	0.25 0.25	0.165 0.258	100 100	2500 2000
4	10 18	**246150** **261150**	**APF-4,00W/10** **APF-4,00W/18**	GREY	16.5 25.5	10 18	2.8 2.8	0.20 0.20	4.4 4.4	0.30 0.30	0.231 0.372	100 100	2000 1600
6	12 18	**246160** **261160**	**APF-6,00W/12** **APF-6,00W/18**	BLACK	20.0 26.0	12 18	3.5 3.5	0.20 0.20	6.3 6.3	0.30 0.30	0.388 0.490	100 100	1000 800
10	12 18	**246170** **261170**	**APF-10,00W/12** **APF-10,00W/18**	IVORY	21.5 27.5	12 18	4.5 4.5	0.20 0.20	7.6 7.6	0.40 0.40	0.556 0.720	100 100	800 400
16	12 18	**246180** **261180**	**APF-16,00W/12** **APF-16,00W/18**	GREEN	22.2 28.2	12 18	5.8 5.8	0.20 0.20	8.8 8.8	0.40 0.40	0.762 0.963	100 100	500 300
25	16 22	**246190** **261190**	**APF-25,00W/16** **APF-25,00W/22**	BROWN	29.0 35.0	16 22	7.3 7.3	0.20 0.20	11.2 11.2	0.40 0.40	1.134 1.415	50 50	350 200
35	16 22	**246200** **261200**	**APF-35,00W/16** **APF-35,00W/22**	BEIGE	30.0 39.0	16 22	8.3 8.3	0.20 0.20	12.5 12.5	0.50 0.50	1.308 1.693	50 50	250 200
50	20 25	**246210** **261210**	**APF-50,00W/20** **APF-50,00W/25**	OLIVE	36.0 40.0	20 25	10.3 10.3	0.30 0.30	15.0 15.0	0.60 0.60	2.300 2.784	50 25	150 125





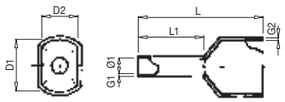
10903 APF
Cord end terminal

APF cord end terminal manufactured from electrolytic copper capillary tube with a tinplated finish to improve electrical contact. The insulating part is made of nylon (PA).

Sec. (mm²)	L1	Code	Ref.	Colour	Dimensions (mm)						Kg x 1.000	Bag	Box
				D	L	L1	Øl1	G1	Øl2	G2			
0.50	8 10	**245100** **260100**	**APF-0,50/8** **APF-0,50/10**	WHITE	14.5 16.0	8 10	1.0 1.0	0.15 0.15	2.6 2.6	0.25 0.25	0.088 0.112	100 100	4000 3500
0.75	8 12	**250110** **262110**	**APF-0,75D/8** **APF-0,75D/12**	GREY	14.6 18.4	8 12	1.2 1.2	0.15 0.15	2.8 2.8	0.25 0.25	0.100 0.123	100 100	4000 3500
1	8 12	**245120** **260120**	**APF-1,00/8** **APF-1,00/12**	RED	14.6 18.4	8 12	1.4 1.4	0.15 0.15	3.0 3.0	0.25 0.25	0.116 0.157	100 100	3500 3000
1.5	8 18	**245130** **260130**	**APF-1,50/8** **APF-1,50/18**	BLACK	14.6 24.4	8 18	1.7 1.7	0.15 0.15	3.5 3.5	0.25 0.25	0.134 0.213	100 100	3000 2500
2.5	8 18	**246140** **261140**	**APF-2,50W/8** **APF-2,50W/18**	BLUE	15.2 25.0	8 18	2.2 2.2	0.15 0.15	4.0 4.0	0.25 0.25	0.165 0.258	100 100	2500 2000
4	10 18	**246150** **261150**	**APF-4,00W/10** **APF-4,00W/18**	GREY	16.5 25.5	10 18	2.8 2.8	0.20 0.20	4.4 4.4	0.30 0.30	0.231 0.372	100 100	2000 1600
6	12 18	**250160** **262160**	**APF-6,00D/12** **APF-6,00D/18**	YELLOW	20.0 26.0	12 18	3.5 3.5	0.20 0.20	6.3 6.3	0.30 0.30	0.388 0.490	100 100	1000 800
10	12 18	**250170** **262170**	**APF-10,00D/12** **APF-10,00D/18**	RED	21.5 27.5	12 18	4.5 4.5	0.20 0.20	7.6 7.6	0.40 0.40	0.556 0.720	100 100	800 400
16	12 18	**250180** **262180**	**APF-16,00D/12** **APF-16,00D/18**	BLUE	22.2 28.2	12 18	5.8 5.8	0.20 0.20	8.8 8.8	0.40 0.40	0.762 0.963	100 100	500 300
25	16 22	**250190** **262190**	**APF-25,00D/16** **APF-25,00D/22**	YELLOW	29.0 35.0	16 22	7.3 7.3	0.20 0.20	11.2 11.2	0.40 0.40	1.134 1.415	50 50	350 200
35	16 22	**245200** **260200**	**APF-35,00/16** **APF-35,00/22**	RED	30.0 39.0	16 22	8.3 8.3	0.20 0.20	12.5 12.5	0.50 0.50	1.308 1.693	50 50	250 200
50	20 25	**245210** **260210**	**APF-50,00/20** **APF-50,00/25**	BLUE	36.0 40.0	20 25	10.3 10.3	0.30 0.30	15.0 15.0	0.60 0.60	2.300 2.784	50 25	150 125

CORD END TERMINALS





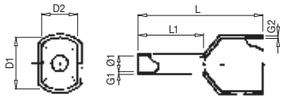
10904 APF/D
Twin cord end terminal

APF/D cord end terminal manufactured from electrolytic copper capillary tube with a tinplated finish to improve electrical contact. The insulating part is made of nylon (PA). It is designed for electrical panel boards.

Sec. (mm²)	L1	Code	Ref.	Colour	Dimensions (mm)							Kg x 1.000	Bag	Box
				F	Øl	D2	D1	L	L1	G1	G2			
0.50	8	**255100**	**APF/D-0,50D**	WHITE	1.5	2.5	4.7	15.0	8.0	0.15	0.25	0.110	100	3500
0.75	8	**258110**	**APF/D-0,75**	BLUE	1.8	2.8	5.0	15.0	8.0	0.15	0.25	0.140	100	3000
1	8	**255120**	**APF/D-1,00D**	RED	2.3	3.4	5.4	15.0	8.0	0.15	0.30	0.160	100	2500
1.5	8	**255130**	**APF/D-1,50D**	BLACK	2.3	3.6	6.6	16.0	8.0	0.15	0.30	0.200	100	2000
2.5	10	**258140**	**APF/D-2,50**	GREY	2.9	4.2	7.8	18.5	10.0	0.20	0.30	0.300	100	1000
4	12	**258150**	**APF/D-4,00**	ORANGE	3.8	4.9	8.8	23.0	12.0	0.20	0.30	0.460	100	800
6	14	**258160**	**APF/D-6,00**	GREEN	4.9	6.9	10.0	26.0	14.0	0.20	0.40	0.640	100	500
10	14	**258170**	**APF/D-10,00**	BROWN	6.5	7.2	13.0	26.0	14.0	0.20	0.40	0.990	100	400
16	14	**258180**	**APF/D-16,00**	IVORY	8.3	9.6	18.4	30.0	14.0	0.30	0.40	1.450	100	200

Sec. (mm²)	L1	Code	Ref.	Colour	Dimensions (mm)							Kg x 1.000	Bag	Box
				W	Øl	D2	D1	L	L1	G1	G2			
0.50	8	**256100**	**APF/D-0,50W**	ORANGE	1.5	2.5	4.7	15.0	8.0	0.15	0.25	0.110	100	3500
0.75	8	**256110**	**APF/D-0,75W**	WHITE	1.8	2.8	5.0	15.0	8.0	0.15	0.25	0.140	100	3000
1	8	**256120**	**APF/D-1,00W**	YELLOW	2.3	3.4	5.4	15.0	8.0	0.15	0.30	0.160	100	2500
1.5	8	**256130**	**APF/D-1,50W**	RED	2.3	3.6	6.6	16.0	8.0	0.15	0.30	0.200	100	2000
2.5	10	**255140**	**APF/D-2,50D**	BLUE	2.9	4.2	7.8	18.5	10.0	0.20	0.30	0.300	100	1000
4	12	**255150**	**APF/D-4,00D**	GREY	3.8	4.9	8.8	23.0	12.0	0.20	0.30	0.460	100	800
6	14	**256160**	**APF/D-6,00W**	BLACK	4.9	6.9	10.0	26.0	14.0	0.20	0.40	0.640	100	500
10	14	**256170**	**APF/D-10,00W**	IVORY	6.5	7.2	13.0	26.0	14.0	0.20	0.40	0.990	100	400
16	14	**256180**	**APF/D-16,00W**	GREEN	8.3	9.6	18.4	30.0	14.0	0.30	0.40	1.450	100	200



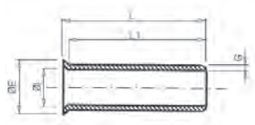


10904 APF/D
Twin cord end terminal

APF/D cord end terminal manufactured from electrolytic copper capillary tube with a tinplated finish to improve electrical contact. The insulating part is made of nylon (PA). It is designed for electrical panel boards.

Sec. (mm²)	L1	Code	Ref.	Colour	Dimensions (mm)							x 1.000	Bag	Box
				D	ØI	D2	D1	L	L1	G1	G2			
0.50	8	**255100**	**APF/D-0,50D**	WHITE	1.5	2.5	4.7	15.0	8.0	0.15	0.25	0.110	100	3500
0.75	8	**255110**	**APF/D-0,75D**	GREY	1.8	2.8	5.0	15.0	8.0	0.15	0.25	0.140	100	3000
1	8	**255120**	**APF/D-1,00D**	RED	2.3	3.4	5.4	15.0	8.0	0.15	0.30	0.160	100	2500
1.5	8	**255130**	**APF/D-1,50D**	BLACK	2.3	3.6	6.6	16.0	8.0	0.15	0.30	0.200	100	2000
2.5	10	**255140**	**APF/D-2,50D**	BLUE	2.9	4.2	7.8	18.5	10.0	0.20	0.30	0.300	100	1000
4	12	**255150**	**APF/D-4,00D**	GREY	3.8	4.9	8.8	23.0	12.0	0.20	0.30	0.460	100	800
6	14	**255160**	**APF/D-6,00D**	YELLOW	4.9	6.9	10.0	26.0	14.0	0.20	0.40	0.640	100	500
10	14	**255170**	**APF/D-10,00D**	RED	6.5	7.2	13.0	26.0	14.0	0.20	0.40	0.990	100	400
16	14	**255180**	**APF/D-16,00D**	BLUE	8.3	9.6	18.4	30.0	14.0	0.30	0.40	1.450	100	200



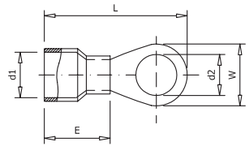


10905 PF
Non-insulated cord end terminal

PF cord end terminal manufactured from electrolytic copper capillary tube with a tin-plated finish to improve electrical contact.

Code	Ref.	Section (mm²)	Dimensions (mm)					x 1.000	Bag	Box
			L	L1	ØI	ØE	G			
265100	**PF-0,50/6**	0.50	6.1	5.3	1.3	2.1	0.15	0.020	100	6000
265110	**PF-0,75/6**	0.75	6.1	5.3	1.7	2.5	0.15	0.050	100	6000
265120	**PF-1,00/10**	1.00	10.0	9.3	1.4	2.5	0.15	0.070	100	6000
265140	**PF-1,50/10**	1.50	10.0	9.0	1.7	2.8	0.15	0.080	100	6000
265160	**PF-2,50/10**	2.50	10.0	9.0	2.2	3.4	0.15	0.090	100	5000
265190	**PF-4,00/12**	4.00	12.0	11.0	2.8	4.0	0.20	0.180	100	4000
265200	**PF-6,00/12**	6.00	12.0	11.0	3.5	4.7	0.20	0.230	100	3300
265220	**PF-10,00/18**	10.00	18.0	17.0	4.5	5.8	0.20	0.460	100	2500
265240	**PF-16,00/18**	16.00	18.0	17.0	5.8	7.5	0.20	0.650	100	1000
265255	**PF-25,00/22**	25.00	22.5	21.0	7.7	9.5	0.20	0.810	100	800
265258	**PF-35,00/25**	35.00	25.5	24.0	8.7	11.0	0.20	1.170	100	500
265265	**PF-50,00/25**	50.00	25.5	24.0	10.9	13.5	0.20	1.720	50	250



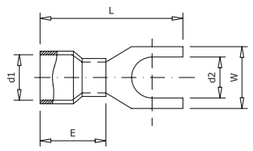


11001 AT
Insulated ring terminal

AT terminal manufactured from electrolytic copper strap with nylon (PA) insulation.

Code	Ref.	Section (mm²)	Metric	Dimensions (mm)					x 1.000	Bag	Box
				d2	W	E	d1	L			
270100	**AT-1,5/3**	1.5	3	3.2	5.5	10.0	1.7	17.5	0.580	100	1600
270110	**AT-1,5/4**		4	4.3	6.6			19.4	0.620	100	1600
270120	**AT-1,5/5**		5	5.3	8.0			20.8	0.680	100	1600
270130	**AT-1,5/6**		6	6.4	10.0			23.0	0.850	100	1000
270140	**AT-1,5/8**		8	8.4	11.6			26.8	0.930	100	1000
270160	**AT-2,5/3**	2.5	3	3.2	6.6	10.0	2.3	17.8	0.708	100	1400
270170	**AT-2,5/4**		4	4.3	6.6			19.4	0.710	100	1400
270180	**AT-2,5/5**		5	5.3	8.5			21.8	0.829	100	1200
270190	**AT-2,5/6**		6	6.4	11.0			26.8	1.172	100	1000
270200	**AT-2,5/8**		8	8.4	11.8			26.8	1.000	100	1000
270220	**AT-6/4**	6.0	4	4.3	7.2	13.0	3.4	22.7	1.341	100	800
270230	**AT-6/5**		5	5.3	9.5			26.0	1.623	100	700
270240	**AT-6/6**		6	6.4	12.0			29.5	1.927	100	600
270250	**AT-6/8**		8	8.4	15.0			34.0	2.374	100	500



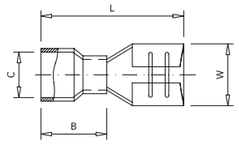


11002 AU
Insulated fork terminal

AU terminal manufactured from electrolytic copper strap with nylon (PA) insulation.

Code	Ref.	Section (mm²)	Metric	Dimensions (mm)					x 1.000	Bag	Box
				d2	W	E	d1	L			
275100	**AU-1,5/3**	1.5	3	3.2	5.7	10.0	1.7	21.0	0.660	100	1600
275110	**AU-1,5/4**		4	4.3	6.4			21.0	0.650	100	1600
275120	**AU-1,5/5**		5	5.3	8.1			21.0	0.680	100	1400
275130	**AU-1,5/6**		6	6.4	9.5			21.0	0.680	100	1400
275140	**AU-1,5/8**		8	-	-			-	1.000	100	1000
275160	**AU-2,5/3**	2.5	3	3.2	5.7	10.0	2.3	21.0	0.771	100	1400
275170	**AU-2,5/4**		4	4.3	6.4			21.0	0.748	100	1400
275180	**AU-2,5/5**		5	5.3	7.9			21.0	0.786	100	1200
275190	**AU-2,5/6**		6	6.4	9.3			21.0	0.781	100	1200
275200	**AU-2,5/8**		8	-	-			-	0.946	100	800
275220	**AU-6/4**	6.0	4	4.3	8.3	13.0	3.4	25.5	1.542	100	800
275230	**AU-6/5**		5	5.3	9.0			25.5	1.523	100	800
275240	**AU-6/6**		6	6.4	9.0			25.5	1.417	100	700
275250	**AU-6/8**		8	8.4	14.0			30.5	2.116	100	600



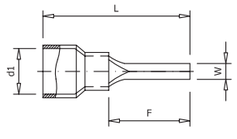


11003 AFH
Insulated female connector

AFH connector manufactured from electrolytic copper strap with nylon (PA) insulation. Incorporates an inside fitting which provides a better security to stand possible mechanical vibrations.

Code	Ref.	Section (mm²)	Dimensions (mm)				x 1.000	Bag	Box
			W	L	B	C			
280100	**AFH-1,5/2,8**	1.5	3.2	19.0	10.5	1.7	0.604	100	1600
280120	**AFH-1,5/4,8**		5.0	19.4	10.5	1.7	0.754	100	1400
280130	**AFH-1,5/6,3**		6.6	20.8	10.5	1.7	0.874	100	1200
280140	**AFH-2,5/4,8**	2.5	5.0	19.4	10.5	2.3	0.942	100	1400
280150	**AFH-2,5/6,3**		6.6	20.8	10.5	2.3	1.022	100	1000
280160	**AFH-6/6,3**	6.0	6.6	23.3	13.0	3.4	1.534	100	700
280170	**AFH-6/9,5**		10.0	28.6	13.0	3.4	2.534	100	500



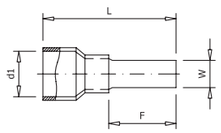


11004 AP
Insulated pin terminal

AP terminal manufactured from electrolytic copper strap with nylon (PA) insulation.

Code	Ref.	Section (mm²)	Dimensions (mm)				x 1.000	Bag	Box
			W	F	L	d1			
285100	**AP-1,5**	1.5	1.9	10.0	20.0	1.7	0.670	100	2000
285130	**APL-1,5**		1.9	12.0	21.8	1.7	0.720	100	2000
285110	**AP-2,5**	2.5	1.9	10.0	20.0	2.3	0.752	100	1800
285140	**APL-2,5**		1.9	12.0	21.8	2.3	0.806	100	1800
285120	**AP-6**	6.0	2.8	13.0	27.0	3.4	1.639	100	800





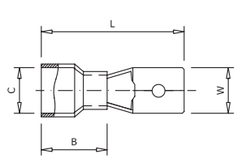
11004 APP
Insulated blade terminal

APP terminal manufactured from electrolytic copper strap with nylon (PA) insulation.

Code	Ref.	Section (mm²)	Dimensions (mm)				x 1.000	Bag	Box
			W	F	L	d1			
290100	**APP-1,5**	1.5	2.8	9.0	18.8	1.7	0.580	100	1600
290130	**APPL-1,5**		2.2	18.0	27.8	1.7	0.660	100	1400
290110	**APP-2,5**	2.5	2.8	9.0	18.8	2.3	0.670	100	1600
290140	**APPL-2,5**		2.2	18.0	27.8	2.3	0.766	100	1400
290120	**APP-6**	6.0	2.8	10.0	23.0	3.4	1.221	100	900
290150	**APPL-6**		4.5	18.0	31.0	3.4	1.693	100	700

INSULATED TERMINALS



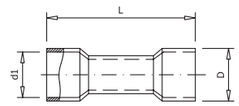


11003 AFM
Insulated male connector

AFM connector manufactured from electrolytic copper strap with nylon (PA) insulation. Incorporates an inside fitting which provides a better security to stand possible mechanical vibrations.

Code	Ref.	Section (mm²)	Dimensions (mm)				x 1.000	Bag	Box
			W	L	B	C			
295100	**AFM-1,5**	1.5	6.35	21.8	10.5	1.7	0.794	100	1600
295110	**AFM-2,5**	2.5	6.35	21.8	10.5	2.3	0.882	100	1400
295120	**AFM-6,0**	6.0	6.35	24.0	13.0	3.4	1.494	100	800



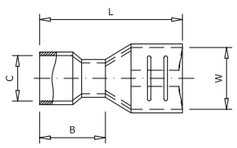


11005 AML
Insulated butt-connector

AML butt-connector manufactured from electrolytic copper strap with nylon (PA) insulation. Incorporates an inside fitting which provides a better security to stand possible mechanical vibrations.

Code	Ref.	Section (mm²)	Dimensions (mm)			x 1.000	Bag	Box
			L	D	L			
300100	**AML-1,5**	1.5	24.2	4.0	1.7	0.840	100	1000
300110	**AML-2,5**	2.5	24.2	4.5	2.3	1.010	100	800
300120	**AML-6**	6.0	26.0	6.3	3.4	2.130	100	500



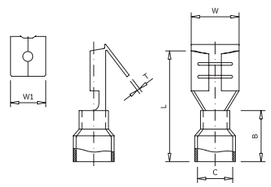


11003 AFH/A
Fully insulated female connector

AFH/A connector manufactured from electrolytic copper strap with nylon (PA) insulation. Incorporates an inside fitting which provides a better security to stand possible mechanical vibrations.

Code	Ref.	Section (mm²)	Dimensions (mm)				x 1.000	Bag	Box
			W	L	B	C			
305100	**AFH/A-1,5**	1.5	6.6	21.8	10.5	1.7	1.094	100	800
305110	**AFH/A-2,5**	2.5		22.2	10.5	2.3	1.282	100	800
305120	**AFH/A-6**	6.0		24.2	12.5	3.4	1.764	100	500



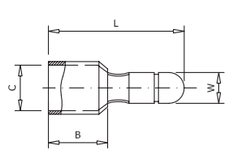


11003 AFH/M
Insulated piggyback terminal

AFH/M terminal manufactured from electrolytic copper strap with nylon (PA) insulation. Incorporates an inside fitting which provides a better security to stand possible mechanical vibrations.

Code	Ref.	Section (mm²)	Dimensions (mm)							x 1.000	Bag	Box
			W	W1	L	B	C	T	Espesor			
305130	AFH/M-1,5	1.5	6.6	6.35	22.5	10.5	1.7	3.5	0.8	1.294	100	700
305140	AFH/M-2,5	2.5	6.6	6.35	22.5	10.5	2.3	4.3		1.442	100	700



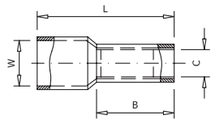


11003 ACM
Insulated male bullet terminal

ACM terminal manufactured from electrolytic copper strap with nylon (PA) insulation. Incorporates an inside fitting which provides a better security to stand possible mechanical vibrations.

Code	Ref.	Section (mm²)	Dimensions (mm)				x 1.000	Bag	Box
			W	L	B	C			
305150	ACM-1,5	1.5	4.0	21.0	10.0	1.7	0.620	100	1600
305160	ACM-2,5	2.5				2.3	0.680	100	1600





11003 ACH
Insulated socket connector

ACH connector manufactured from electrolytic copper strap with nylon (PA) insulation. Incorporates an inside fitting which provides a better security to stand possible mechanical vibrations.

Code	Ref.	Section (mm²)	Dimensions (mm)				x 1.000	Bag	Box
			W	L	B	C			
305170	ACH-1,5	1.5	3.9	23.8	10.0	2.7	1.010	100	1000
305180	ACH-2,5	2.5				3.2	0.980	100	1000



11101 ABT
Insulating piercing connector

ABT piercing connectors are made from 6.6 polyamide with fiberglass. Saw-shaped tabs are made from brass with a tinplated finish to improve electrical contact. Connection by piercing the main and tap cables.

Code	Ref.	Section (mm²)				x 100	Bag	Box
		Main		Tap				
136090	ABT/CT-35/6	10	35	1.5	6	6.150	1	-
136091	ABT/CT-95/10	10	95	1.5	10	6.180	1	-
136120	ABT/CT-95/35	16	95	2.5	35	14.840	1	-
136130	ABT/CT-150/35	35	150	6	35	15.810	1	-
136140	ABT/CT-95/95	25	95	25	95	15.890	1	-
136142	ABT/CT-150/150	35	150	35	150	34.630	1	-
136150	ABT/CT-185/185-2	35	185	35	185	54.460	1	-
136151	ABT/CT-240/120	120	240	25	120	26.500	1	-
136152	ABT/CT-240/240-2	95	240	95	240	59.330	1	-

11104 Pigtail hooks and eyebolts

The hooks and support eyelets are made from high-resistance cold-rolled steel, protected against corrosion.



Code	Ref.	Dimensions (mm)	Pillar	Protection	Bag	Box
362100	GDPA-32R	M 10x320	200	Zn+plasticized	1	-
362110	GDPA-40R	M 10x400	280	Zn+plasticized	1	-
362120	GGA-18R	M 12x180	160	Galvanized	1	-
362130	GGA-24R	M 12x240	220	Galvanized	1	-
362140	GDPL-32R	M 16x320	190	Zn+plasticized	1	-
362150	GDPL-40R	M 16x400	270	Zn+plasticized	1	-
362160	GGL-18R	M 16x180	160	Galvanized	1	-
362170	GGL-24R	M 16x240	220	Galvanized	1	-
362180	GGL-30R	M 16x300	280	Galvanized	1	-
362190	ORL-18R	M 16x180	160	Galvanized	1	-
362200	ORL-20R	M 16x200	180	Galvanized	1	-
362210	ORL-24R	M 16x240	220	Galvanized	1	-
362220	ORL-28R	M 16x280	260	Galvanized	1	-



11102 PA-1000 and PA-1500
Line connection anchor

PA-1000 and PA-1500 line connection anchors are made from thermoplastic material with fibreglass and UV protection, both body and wedge. The fixing ring is made of stainless steel with protection thimble in plastic material.

Code	Ref.	Section (mm²)		Load daN	Kg x 100	Bag	Box
		Min.	Max.				
137099	**PA-1000**	29.5	35	1000	44.000	1	-
137100	**PA-1500**	54.6	80	1500	46.450	1	15



11102 PA-2000
Line connection anchor

PA-2000 line connection anchors are made from body in aluminium alloy, a thermoplastic material wedge, and with fibreglass and UV protection. The fixing ring is made of stainless steel with protection thimble in plastic material.

Code	Ref.	Section (mm²)		Load daN	Kg x 100	Bag	Box
		Min.	Max.				
137105	**PA-2000**	54.6	80	2000	73.420	1	15



11102 PA-25
Line connection anchor

PA-25 anchors are made from thermoplastic material with fiberglass. both body and wedge. The fixing ring is made of stainless steel.

Code	Ref.	Section (mm²)		Load daN	Kg x 100	Bag	Box
		Min.	Max.				
137120	**PA-25**	2x16	4x25	200	10.820	1	20



11103 ES-1500
Suspension unit

The ES-1500 suspension unit is made up of an aluminium console and a plastic suspension clamp.

Code	Ref.	Section (mm²)		Load daN	Kg x 100	Bag	Box
		Min.	Max.				
361100	**ES-1500**	54.6	80	1500	27.080	1	-



11103 PS-1500
Console

The PS-1500 suspension clamp is manufactured in thermoplastic material and is fitted with a sliding coupling to the console.

Code	Ref.	Section (mm²)		Load daN	Kg x 100	Bag	Box
		Min.	Max.				
361110	**PS-1500**	54.6	80	1500	21,450	1	-



11103 CS-1500
Console

CS-1500 consoles are manufactured in aluminium alloy with great mechanical strength with two holes for fastening.

Code	Ref.	Load daN	Kg x 100	Bag	Box
361120	**CS-1500**	1500	25,180	1	-



11103 CA-1500
Console

CA-1500 consoles are manufactured in aluminium alloy with great mechanical strength with two holes for fastening.

Code	Ref.	Load daN	Kg x 100	Bag	Box
361130	**CA-1500**	1500	47.160	1	-



11103 RA-25
Console

The RA-25 return cradle is made of weather-resistant thermoplastic material with a stainless steel anchor. It is designed for the suspension and change of direction of service lines.

Code	Ref.	Section (mm²)		Load daN	Kg x 100	Bag	Box
		Min.	Max.				
361140	**RA-25**	2x16	4x25	250	8.000	1	-



11106 BRPF
Synthetic wall-mount support for nail fixing

BRPF clamps are designed for the installation of braided cables on facades. They are made of thermoplastic material, and their anchoring system is via an expansion pin.

Code	Ref.	Capacity Ø mm	Wall separation (mm)	x 100	Bag	Box
363100	**BRPF-1**	25 to 55	10	8.300	-	50
363110	**BRPF-6**	25 to 55	60	8.600	-	50



11106 BRPV
Synthetic wall-mount support for screw fixing

BRPV clamps are designed for the installation of braided cables on facades. They are made of thermoplastic material, and their anchoring system is via a screw and plastic expansion plug.

Code	Ref.	Capacity Ø mm	Wall separation (mm)	x 100	Bag	Box
364100	**BRPV-1**	25 to 55	10	6.800	-	50
364110	**BRPV-6**	25 to 55	60	8.300	-	50
364120	**BRPV-10**	25 to 55	100	8.300	-	50



11110 CSL
Synthetic clamp

CSL synthetic clamps are made of thermoplastic.
These clamps can be reused.

Code	Ref.	Capacity Ø mm	Length (mm)	x 100	Bag	Box
365100	**CSL-180**	10 to 41	195	0.600	100	-
365110	**CSL-260**	10 to 62	285	0.750	100	-
365120	**CSL-350**	27 to 92	350	0.950	100	-

ABC CONNECTORS



11105 ARC
Plasticized support for lines

ARC supports are manufactured from plasticized stainless steel. No tool required for tightening. They are reusable.
Especially designed for lines.

Code	Ref.	Nail plug	Capacity Ø mm	Wall separation (mm)	x 100	Bag	Box
366100	**ARC-1**	CD-12	45	10	4.400	-	100
366110	**ARC-2**	CD-12	45	60	5.900	-	100
366120	**ARC-3**	CD-14	45	100	12.600	-	75
366130	**ARC-25**	CD-12	52	10	4.900	-	100
366140	**ARC-225**	CD-12	52	60	6.000	-	75
366150	**ARC-2250**	CD-14	52	100	13.500	-	75
366160	**ARC-35**	CD-12	68	10	5.400	-	150
366170	**ARC-335**	CD-12	68	60	6.400	-	50
366180	**ARC-3350**	CD-14	68	100	14.400	-	50

11105 BIP
Plasticized support for line connections

BIP supports are manufactured from plasticized stainless steel. No tool required for tightening. They are reusable.
Especially designed for line connections.



BIP-120 CF
BIP-180 CF

For concrete poles

Code	Ref.	Capacity Ø mm	Wall separation (mm)	x 100	Bag	Box
367100	**BIP-120 CF**	10 to 22	10	10	-	100
367110	**BIP-180 CF**	10 to 42	10	10	-	100



BIP-120 CV
BIP-180 CV

For concrete or wooden poles

Code	Ref.	Capacity Ø mm	Wall separation (mm)	x 100	Bag	Box
367120	**BIP-120 CV**	10 to 22	10	10	-	100
367130	**BIP-180 CV**	10 to 42	10	10	-	100

Nail plug included.

11107 MULTI
Plasticized tie

MULTI supports are manufactured from plasticized steel.
No tool required for tightening. They are reusable.



Code	Ref.	Capacity Ø mm	Length x Width (mm)	x 100	Bag	Box
368100	**MULTI-50**	8 to 17	110x10	0.800	100	-
368110	**MULTI-100**	18 to 25	125x10	0.900	100	-
368120	**MULTI-150**	26 to 35	150x20	1.800	50	-
368130	**MULTI-200**	36 to 42	175x20	2.000	50	-
368140	**MULTI-300**	43 to 52	225x20	1.380	50	-
368150	**MULTI-400**	53 to 62	250x20	1.520	50	-



11108 ES
Flexible PVC end cap

ES flexible end caps are manufactured from PVC with UV protection. They are suitable for cable end protection avoiding deterioration and humidity.

Code	Ref.	Ø mm	Length (mm)	Kg x 100	Bag	Box
369100	**ES-7**	7	50	0.250	1	100
369110	**ES-9**	9	50	0.400	1	100
369120	**ES-10**	10	60	0.800	1	100
369130	**ES-11**	11	60	0.800	1	100
369140	**ES-12**	12	60	0.800	1	100
369150	**ES-13**	13	60	0.800	1	100
369160	**ES-14**	14	60	0.800	1	100
369170	**ES-17**	17	65	1.200	1	100
369180	**ES-20**	20	70	1.800	1	100
369190	**ES-25**	25	70	1.800	1	100
369200	**ES-30**	30	80	3.500	1	100
369210	**ES-36**	36	80	3.500	1	100
369220	**ES-40**	40	100	5.600	1	100
369230	**ES-52**	52	120	9.500	1	100

11108 CCS
Flexible Santoprene end cap

CCS flexible end caps are manufactured from Santoprene with UV protection. They are suitable for cable end protection avoiding deterioration and humidity.

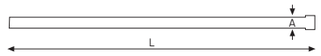


Code	Ref.	Section cable (mm)	Length (mm)	Kg x 100	Bag	Box
370100	**CCS-6/35**	6 to 35	30	0.200	-	100
370110	**CCS-25/185**	25 to 185	80	0.840	-	100



11111 BR
Polyamide 6 cable tie

BR cable ties are manufactured from 6.6 polyamide. Available in black or natural.



Code	Ref.	Dimensions (mm)		Colour	Bag	Box
		L	A			
335100	**BRB-80.24**	80	2.4	Natural	100	-
335110	**BRB-100.25**	100	2.5		100	-
335120	**BRB-140.25**	140			100	-
335130	**BRB-160.25**	160			100	-
335140	**BRB-200.25**	200			100	-
335150	**BRB-150.36**	150	3.6		100	-
335160	**BRB-200.36**	200			100	-
335170	**BRB-250.36**	250			100	-
335180	**BRB-300.36**	300			100	-
335190	**BRB-370.36**	370			100	-
335200	**BRB-190.48**	190	4.8		100	-
335210	**BRB-250.48**	250			100	-
335220	**BRB-280.48**	280			100	-
335230	**BRB-370.48**	370			100	-
335240	**BRB-390.48**	390			100	-
335250	**BRB-200.76**	200	7.6		100	-
335260	**BRB-250.76**	250			100	-
335270	**BRB-300.76**	300			100	-
335280	**BRB-380.76**	380			100	-
335290	**BRN-80.24**	80	2.4	Black	100	-
335300	**BRN-100.25**	100	2.5		100	-
335310	**BRN-140.25**	140			100	-
335320	**BRN-160.25**	160			100	-
335330	**BRN-200.25**	200			100	-
335340	**BRN-150.36**	150	3.6		100	-
335350	**BRN-200.36**	200			100	-
335360	**BRN-250.36**	250			100	-
335370	**BRN-300.36**	300			100	-
335380	**BRN-370.36**	370			100	-
335390	**BRN-200.48**	200	4.8		100	-
335400	**BRN-250.48**	250			100	-
335410	**BRN-280.45**	280			100	-
335420	**BRN-370.48**	370			100	-
335430	**BRN-390.48**	390			100	-
335440	**BRN-200.76**	200	7.6		100	-
335450	**BRN-250.76**	250			100	-
335460	**BRN-300.76**	300			100	-
335470	**BRN-380.76**	380			100	-



101 102 103

11112 SAP
Self-adhesive mount

SAP mounts are manufactured from polyamide. Ideal to fix to a surface, no tool required for installation.

Code	Ref.	Length x Width (mm)	Colour	Bag	Box
340100	**SAP-101**	21x21	Natural	100	-
340110	**SAP-101-N**	21x21	Black	100	-
340120	**SAP-102**	28x28	Natural	100	-
340130	**SAP-102-N**	28x28	Black	100	-
340140	**SAP-103**	28x28	Natural	100	-
340150	**SAP-103-N**	28x28	Black	100	-



ST-1 ST-2 ST-0

11112 ST
Screw type mount

ST mounts are manufactured from polyamide. Ideal to fix material to a surface which needs more resistance.

Code	Ref.	Length x Width (mm)	Colour	Bag	Box
345100	**ST-0**	19x9.5	Natural	100	-
345110	**ST-0-N**	19x9.5	Black	100	-
345120	**ST-1**	15x10	Natural	100	-
345130	**ST-1-N**	15x10	Black	100	-
345140	**ST-2**	23x16	Natural	100	-
345150	**ST-2-N**	23x16	Black	100	-



PST-O PST-1

11111 PST
Mounts by pressure

PST mounts are manufactured from polyamide and are perfect to fix to a surface, no tool required for installation.

Code	Ref.	Width (mm)	Colour	Bag	Box
350100	**PST-0**	4	Natural	100	-
350110	**PST-1**	8	Natural	100	-

* Bracket not included.



11113 EC
Nail plugs

EC nail plugs are manufactured from polyamide and designed for cable tie fixing.
Easy surface fixing by percussion.

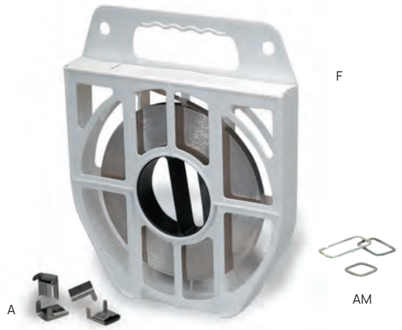
Code	Ref.	Width (mm)	Colour	Bag	Box
355100	**EC-8**	9	Black	100	-



11113 CD
Nail plugs

CD nail plugs are manufactured from polyamide for wall fixing.

Code	Ref.	Ø mm	Length (mm)	Bag	Box
355110	**CD-8**	8	40	100	-
355120	**CD-10**	10	50	100	-
355130	**CD-12**	12	60	100	-
355140	**CD-14**	14	70	100	-
355150	**CD-16**	16	75	100	-



11109 F / A / AM
Band and fittings

The Z12 CN 1707 stainless steel band and its accessories are primarily used to secure and fasten elements in various industrial and construction applications. It can be cut to the desired length and is used in combination with accessories such as closures and tensioning tools to secure loads or structures.
It includes a dispenser that facilitates transport and handling.

Code	Ref.	Width x Thickness (mm)	Length (m)	x 1	Bag	Box
371100	F-104	10 x 0.4	50	1.600	-	1
371110	F-107	10 x 0.7	50	2.700	-	1
371120	F-204	20 x 0.4	50	3.400	-	1
371130	F-207	20 x 0.7	50	5.800	-	1

Code	Ref.	Width (mm)	x 1	Bag	Box
371140	A-100	10	0.500	100	-
371150	A-200	20	0.900	100	-

Code	Ref.	Dimensions (mm)	x 1	Bag	Box
371160	AM-25	25 x 25	1.400	100	-
371170	AM-40	25 x 40	1.900	100	-
371180	AM-60	25 x 60	2.450	100	-



20106 OPL
Strapping tool

Easy-to-use tool for stainless steel cable strapping.

Code	Ref.	x 100	Bag	Box
406100	OPL	145	-	1

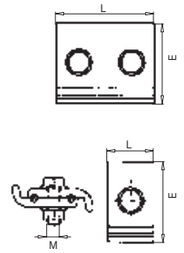


20106 OPC
Strap cutter

Cutter tool for stainless steel band.

Code	Ref.	x 100	Bag	Box
406110	OPC	70	-	1



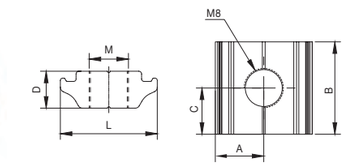


11302 TRP
Copper parallel earthing clamp

TRP clamp manufactured from brass with stainless steel screws.
They are available with one or two screws and in two different lengths depending on the required application. With high robustness. they are designed for overhead line cables.

Code	Ref.	Main		Tap		Dimensions (mm)			x 100	Bag	Box
		Max.	Min.	Max.	Min.	E	L	M			
175100	TRP-1-25/150	150	25	150	25	68	30	12	29.000	-	15
175110	TRP-2-25/150	150	25	150	25	68	62	12	58.000	-	6
175120	TRP-2-25/150-R	150	25	150	25	68	90	12	81.000	-	5

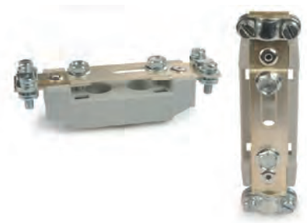


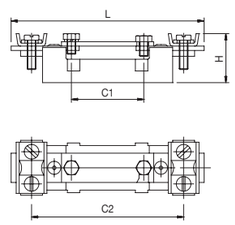


11404 SCF/GC
Earthing clip

Earthing clamp for photovoltaic structure, Al+stainless steel.
It is valid for solar structures type G1. For the rest of the structures. the profile must be drilled and M8 must be used.

Code	Ref.	Dimensions (mm)						x 100	Bag	Box
		A	B	C	D	L	M			
501070	SCF/GC	10.5	20	10	8	21	M8	-	10	500





11302 PTR
Neutral earthing switch

The PTR earth bridge is ideal for ensuring safe grounding connections in electrical installations, providing high durability and mechanical strength. It is manufactured from polyester.
It admits a maximum cable capacity of 70 mm².

Code	Ref.	Dimensions (mm)				x 100	Box	Pallet
		L	H	C1	C2			
240100	PTR	117.5	23	25	103	-	1	10



11304 TMV-8
Multiple terminal for copper rod 8 mm Ø

Equipped with M8x35 stainless steel screw, nut and pressure washer.
Made of tinned copper, tin thickness 15 µ.
Ideal for earthing equipment inside transformer substations.

Code	Ref.	Description	Kg x 100	Bag	Box
171100	**TMV-8**	Multiple terminal for copper rod 8 mm Ø	-	1	-



11304 CDCC-50
Tap-off connectors for 50 mm² cable crossovers

Made of tinned copper, 15 µ tin thickness.
Ideal for grounding inside transformer substations.

Code	Ref.	Description	Kg x 100	Bag	Box
171110	**CDCC-50**	Tap-off connectors for 50 mm² cable crossovers	-	1	-

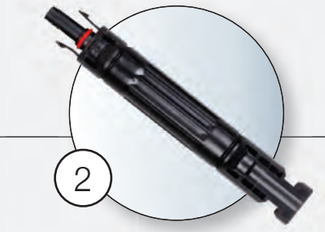


11304 GDC
Earthing clamp

Simple fastening to fix the cable to the wall or to the metal structure.
Made of tinned copper, tin thickness 15 µ.
Includes plug and screw.

Code	Ref.	Description	Kg x 100	Bag	Box
171120	**GDC-25**	Earthing clamp Cu. 16-25 mm² 15 µ	-	1	-
171121	**GDC-50**	Earthing clamp Cu. 35-50 mm² 15 µ	-	1	-
171122	**GDC-95**	Earthing clamp Cu. 75-95 mm² 15 µ	-	1	-

CONNECTIONS FOR PHOTOVOLTAIC INSTALLATIONS



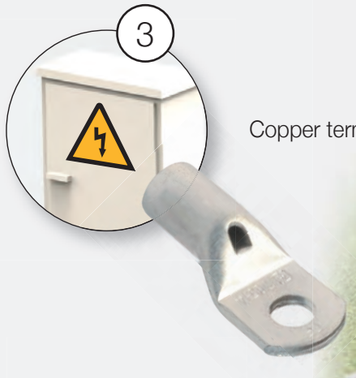
2

Fusible holder with integrated fuse



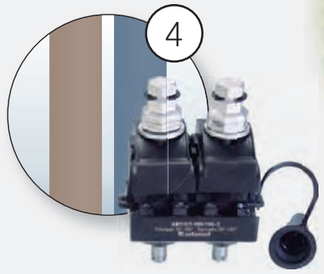
1

Connectors for the wiring



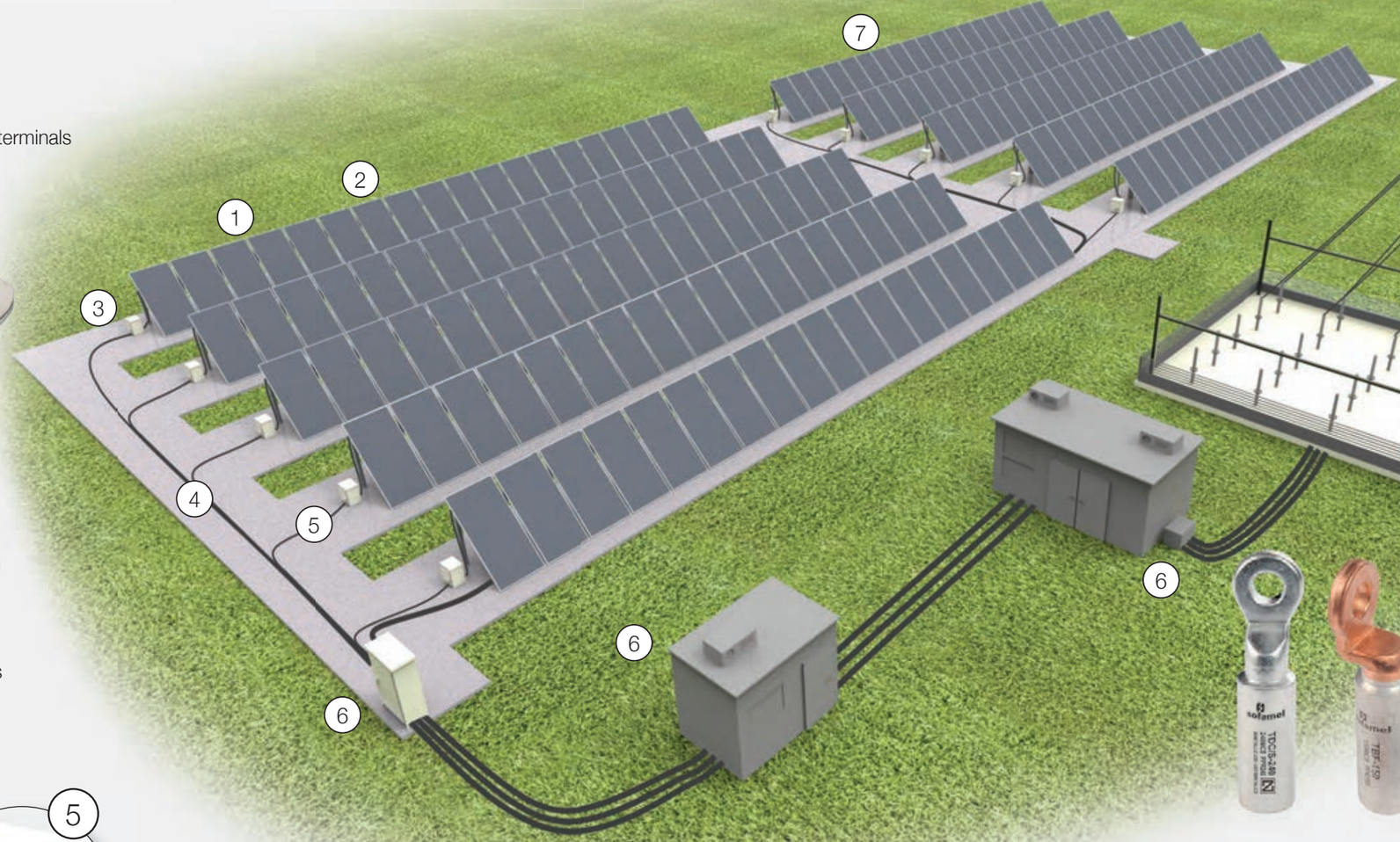
3

Copper terminals



4

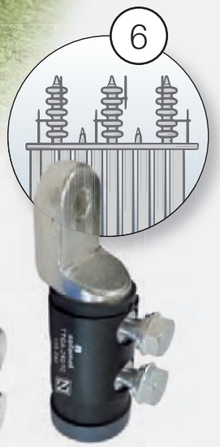
Insulating piercing connectors for Cu or Al cable





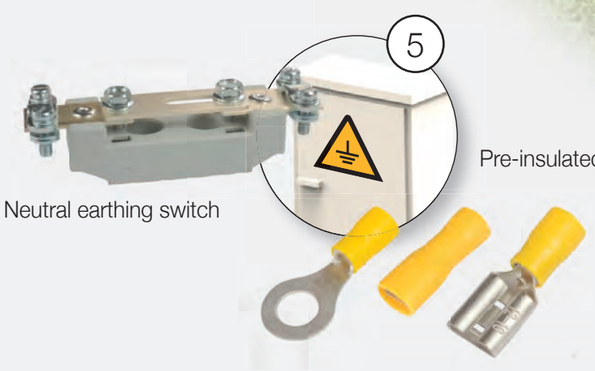
7

Earthing clamp to structures



6

Aluminum and bimetallic cable lug



5

Neutral earthing switch

Pre-insulated terminals



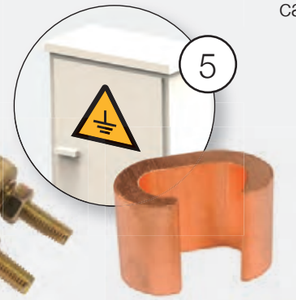
6

Battery terminals

Setscrew joint



Earthing clamp



5

Copper compression clamp

1 Connectors for the wiring





2



Fusible holder with integrated fuse

3



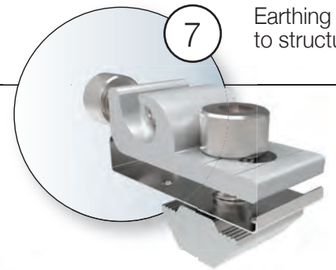
Tap-off connectors

4



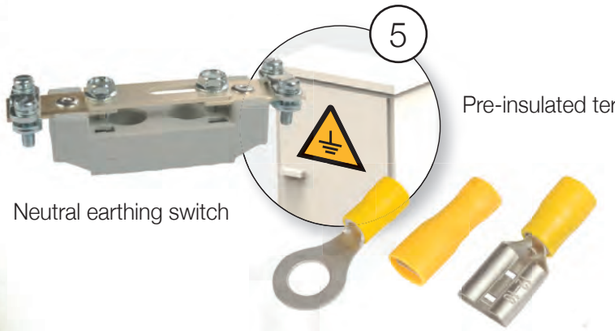
Copper terminals

7



Earthing clamp to structures

5



Pre-insulated terminals

Neutral earthing switch

6



Copper compression clamp



Setscrew joint

Earthing clamp



11401 SCF/C
MC4 type connectors for 1000 V and 1500 V

MC4 type connectors, male and female: ensure a good connection and water tightness between the wiring terminations and the various elements that make up a photovoltaic installation.
SCF/C-1000V for cross-sections of between 2.5 and 6 mm²
SCF/C-1500V-A for cross-sections of between 2.5 and 6 mm²
SCF/C-1500V-B for 10 mm² cross-sections
A cable crimper is required for correct installation.

Code	Ref.	Cable Section (mm²)	Kg x 100	Bag	Box
501010	SCF/C-1000V	2.5-6	-	-	-
501020	SCF/C-1500V-A	2.5-6	-	-	-
501030	SCF/C-1500V-B	10	-	-	-



11401 SCF/D-TL
Tap-off connectors with flexible hose

MC4 type flexible connectors for connecting strings in parallel.
SCF/D-2TL-1500V for connecting 2 to 1 and 1500 V isolation

Code	Ref.	Unions	Kg x 100	Bag	Box
505030	SCF/D-2TL-1500V	2 to 1	-	-	-



11402 SCF/FUSE
MC4 Type fuse holder for 1000 V and 1500 V

Integrated, watertight 20 A fuse in MC4 connector.
Possibility of changing fuse (from 15/20/30 A).
SCF/FUSE-1000V female-male
SCF/FUSE-1500V female-male

Code	Ref.	Amps (A)	Kg x 100	Bag	Box
501043	SCF/FUSE-1000V 15A	15	-	-	-
501044	SCF/FUSE-1000V 20A	20	-	-	-
501046	SCF/FUSE/L-1500V 15A	15	-	-	-
501047	SCF/FUSE/L-1500V 20A	20	-	-	-



11401 SCF/CT-1000V
MC4 type connectors behind the scenes

The MC4 connectors, male and female, are designed for the photovoltaic solar system between the solar panel and the inverter or the connection box.
They are a simple and safe way to connect two solar cables with sections between 2.5 mm², 4 mm² and 6 mm².
They are dustproof, waterproof, anti-aging, UV resistant.

Code	Ref.	Unions	Kg x 100	Bag	Box
501000	SCF/CT-1000V	2 to 1	-	-	-

CONNECTIONS FOR PHOTOVOLTAIC INSTALLATIONS

Solar Connection



11401 SCF/D-T
Tap-off connectors

MC4 type rigid connectors for connecting strings in parallel.
SCF/D-2T-1500V for connecting 2 to 1 and 1500 V isolation
SCF/D-3T-1500V for connecting 3 to 1 and 1500 V isolation

Code	Ref.	Unions	Kg x 100	Bag	Box
502070	SCF/D-2T-1500V	2 to 1	-	-	-
502080	SCF/D-3T-1500V	3 to 1	-	-	-



20103 L-MC4
Installation key

Tool specially designed to facilitate the connection/disconnection process of MC4 connectors.

Code	Ref.	Kg x 100	Bag	Box
385000	L-MC4	-	-	-

20103 LX-MC4
Cross wrench for installing MC4 fuse holders

Pair of wrenches for the installation of 1500V MC4 fuse holder connectors, MC4 type.
Specific tool for assembling and disassembling male/female photovoltaic connectors and fuse holders, as well as for their adjustment.

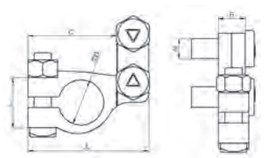


Code	Ref.	Kg x 100	Bag	Box
385010	LX-MC4	-	-	-

11404 SCF/BB
Battery terminals

Set of 2 brass terminals for connecting the cable to the battery: includes one positive and one negative terminal.
Possibility of using cable from other sections, with lugs.

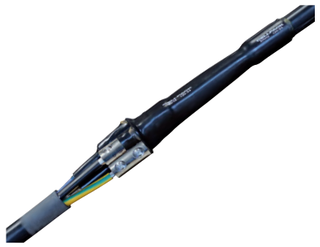






Code	Ref.	Section de cable		Dimensions (mm)							Kg x 100 (The pair)	Bag	Box
		Min.	Max.	A	B	C	ØD −	ØD +	L	M			
501060	SCF/BB	16	50	45	10	33	17	18	19	7.5	156	-	-

Straight-through joints



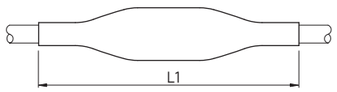
SMHSV

Heat shrinkable straight-through joint

with screw connectors (with shear head bolts), for unarmoured polymeric cables and conductors

Universally suitable for connecting polymeric cables or conductors insulated with PVC, PE and XLPE (e.g. N(A)YY, NYM, TT). With mechanical connectors with shear head bolts, suitable for aluminium or copper cables.

Dimensions



Characteristics
- Compact dimensions
- Wide conductor and cross-section range
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- Transversely waterproof
- High electrical insulating values
- High mechanical strength

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Scope of delivery
Outer sleeve, inner sleeves, screw connectors with shear head bolts, cleaning tissue, emery cloth, assembly instructions

Type		L1 mm	Polymeric cable unarmoured 4x Nominal cross section per conductor mm²	Polymeric cable unarmoured 5x Nominal cross section per conductor mm²	Art.-No.
SMHSV4	6-50	500	6 - 50		294806
	16-95	650	16 - 95		262697
	50-150	800	50 - 150		262699
	95-240	1000	95 - 240		262710
	240-400	1100	240 - 400		349967
SMHSV5	6-50	800		6 - 50	357683
	16-95	900		16 - 95	357687
	50-150	1000		50 - 150	357689
	95-240	1200		95 - 240	357710

HEAT SHRINK TECHNOLOGY

Straight-through joints



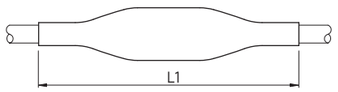
SMH...V

Heat shrinkable straight-through joint

with screw connectors, for unarmoured polymeric cables and conductors

Universally suitable for connecting polymeric cables or conductors insulated with PVC, PE and XLPE (e.g. N(A)YY, NYM, TT). With screw connectors with grub screw, suitable for aluminium and copper conductors.

Dimensions



Characteristics
- Compact dimensions
- Wide conductor and cross-section range
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- Transversely waterproof
- High electrical insulating values
- High mechanical strength

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Scope of delivery
Outer sleeve, inner sleeves, screw connectors, allen key, cleaning tissue, emery cloth, assembly instructions

Type		L1 mm	Polymeric cable unarmoured 4x Nominal cross section per conductor mm²	Polymeric cable unarmoured 5x Nominal cross section per conductor mm²	Art.-No.
SMH4	1.5-6 V	250	1,5 - 6		348812
	6-35 V	400	6 - 35		145359
	25-70 V*	550	25 - 70		145360
	70-150 V	700	70 - 150		145361
SMH5	1.5-6 V	250		1,5 - 6	145362
	6-35 V	500		6 - 35	145363

*with screw connectors with shear head bolts

Straight-through joints



SMH
Heat shrinkable straight-through joint
for unarmoured polymeric cables and conductors

Universally suitable for connecting polymeric cables or conductors insulated with PVC, PE and XLPE (e.g. N(A)YY, NYM, TT). Suitable for compression connectors on aluminium or copper cables.

Characteristics
- Compact dimensions
- Wide conductor and cross-section range
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- Transversely waterproof
- High electrical insulating values
- High mechanical strength

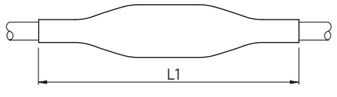
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Storage conditions/Shelf life
- Unlimited shelf life

Dimensions



Scope of delivery
Outer sleeve, inner sleeves, cleaning tissue, emery cloth, assembly instructions

Optional accessory: Compression connectors (see Connecting technology)

Type		L1 mm	Polymeric cable unarmoured 1x Nominal cross section per conductor mm²	Polymeric cable unarmoured 4x Nominal cross section per conductor mm²	Polymeric cable unarmoured 5x Nominal cross section per conductor mm²	Art.-No.
SMH1	35-70	400	35 - 70			150158
	95-240	500	95 - 240			150160
	150-300	500	150 - 300			150161
	300-500	600	300 - 500			150162
SMH4	1.5-6	200		1.5 - 6		145246
	1.5-16	400		1.5 - 16		145249
	6-25	500		6 - 25		145296
	16-50	600		16 - 50		145320
	25-95	600		25 - 95		145332
	25-150	700		25 - 150		145282
	95-300	1000		95 - 300		145342
SMH5	1.5-6	250			1.5 - 6	145255
	1.5-10	250			1.5 - 10	145257
	1.5-16	400			1.5 - 16	145338
	16-25	500			16 - 25	145295
	35-95	500			35 - 95	126745
	120-240	800			120 - 240	126665

HEAT SHRINK TECHNOLOGY

Straight-through joints



SMH
Heat shrinkable straight-through joint
with heat shrinkable crimp connectors, for control cables and signal cables

Universally suitable for connecting control cables and signal cables. With heat shrinkable crimp connectors on copper conductors.

Characteristics
- Compact dimensions
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- Transversely waterproof
- High electrical insulating values
- High mechanical strength

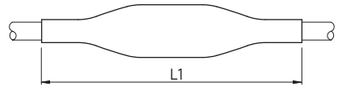
Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Dimensions



Scope of delivery
Outer sleeve, inner sleeves, heat shrinkable crimp connectors, cleaning tissue, emery cloth, assembly instructions

Type		L1 mm	Control and signal cable Number of conductors	Control and signal cable Nominal cross section per conductor mm²	Art.-No.
SMH	7/10 1.5-2.5	330	7 - 10	1.5 - 2.5	145486
	12/14 1.5-2.5	500	12 - 14	1.5 - 2.5	145489
	18/24 1.5-2.5	500	18 - 24	1.5 - 2.5	145493

Straight-through joints



SMHA4
Heat shrinkable straight-through joint
for tape and wire armoured polymeric cables

Universally suitable for connecting armoured polymeric cables insulated with PVC, PE and XLPE (e.g. N(A)YY, NYM, TT). Suitable for compression connectors on aluminium and copper conductors.

Characteristics
- Compact dimensions
- Wide conductor and cross-section range
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- Transversely waterproof
- High electrical insulating values
- High mechanical strength

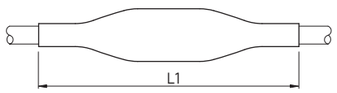
Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Dimensions



Scope of delivery
Outer sleeve, inner sleeves, armour crossover kit, cleaning tissue, emery cloth, assembly instructions

Optional accessory: Compression connectors (see Connecting technology)

Type		L1 mm	Polymeric cable armoured 4x Nominal cross section per conductor mm²	Art.-No.
	16-50	650	16 - 50	145243
	35-150	850	35 - 150	130945
	95-300	1000	95 - 300	174183

HEAT SHRINK TECHNOLOGY

Straight-through joints



SMH...G
Heat shrinkable straight-through joint
for flexible cables

Universally suitable for connecting conductors insulated with EPR (e.g. A07RN-F, H07RN-F). Suitable for compression connectors.

Characteristics
- Compact dimensions
- Wide conductor and cross-section range
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- Transversely waterproof
- High electrical insulating values
- High mechanical strength

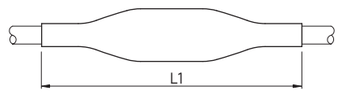
Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Dimensions



Scope of delivery
Outer sleeve, inner sleeves, filling material, cleaning tissue, emery cloth, assembly instructions

Type		L1 mm	Polymeric conductor unarmoured 4x Nominal cross section per conductor mm²	Polymeric conductor unarmoured 5x Nominal cross section per conductor mm²	Art.-No.
SMH4G	1.5-10	450	1.5 - 10		145479
	16-50	550	16 - 50		145481
	35-95	600	35 - 95		145482
	95-150	700	95 - 150		145552
SMH5G	1.5-10	500		1.5 - 10	145483
	10-25	600		10 - 25	145484
	16-50	600		16 - 50	163952
	70-120	700		70-120	205102

Straight-through joints



SMHC...

Heat shrinkable straight-through joint
for polymeric cables with concentric conductor

Universally suitable for connecting polymeric-insulated cables and conductors with concentric conductors and insulations made of PVC, PE and XLPE (e.g. N(A)YCY, N(A)YC(W)Y, GKN). Suitable for compression connectors.

Characteristics
- Compact dimensions
- Wide conductor and cross-section range
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- Transversely waterproof
- High electrical insulating values
- High mechanical strength

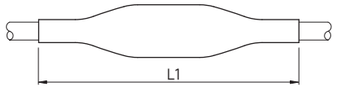
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Storage conditions/Shelf life
- Unlimited shelf life

Dimensions



Scope of delivery
Outer sleeve, copper braid tape, inner sleeves, armour crossover kit, cleaning tissue, emery cloth, assembly instructions

Optional accessory: Compression connectors (see Connecting technology)

Type		L1 mm	Polymeric cable with concentric conductor 1x	3x	4x	Art.-No.
SMHC1	95-240	500	95/50 - 240/95			152521
	150-300	500	150/95 - 300/120			152522
SMHC3	4-10*	350		4/4 - 10/10		126672
	16-35*	500		16/16 - 35/35		126674
	50-95*	600		50/50 - 95/95		126675
	120-240*	1000		120/120 - 240/240		126676
SMHC4	4-10*	350			4/4 - 10/10	203028
	16-35*	500			16/16 - 35/16	203029
	50-95*	600			50/25 - 95/50	203040
	120-240*	1000			120/70 - 240/120	203041

*with additional inner tube

HEAT SHRINK TECHNOLOGY

Straight-through joints



SMH...E90, SMHC...E90

Heat shrinkable straight-through joint
for cable systems E90 according to DIN standard 4102 Section 12

For connecting security cables type NHXH and NHXCH, anywhere where they are required, for example, in power plants, chemical plants, public buildings, airports, tunnels, off-shore installations, fire alarm systems, stairwells, elevator shafts. Suitable for compression connectors.

Characteristics
- Compact dimensions
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Fire-resistant (see tests)
- Free from paint-wetting inhibiting substances
- Halogen-free
- Transversely waterproof
- High electrical insulating values
- Low smoke and gas emission

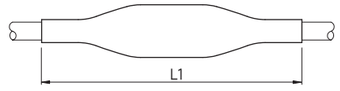
Application/Suitability
- Indoor
- Outdoor
- Underground
- Installation ducts
- Ductwork

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN VDE 0472 Section 814 (FE180)
- DIN 4102 Section 12(E90)
- IEC 60331-60332

Storage conditions/Shelf life
- Unlimited shelf life

Dimensions



Scope of delivery
Inner sleeves, insulating tubes, outer sleeve, cleaning tissue, emery cloth, assembly instructions

Optional accessory: Compression connectors (see Connecting technology)

Type		L1 mm	Polymeric cable unarmoured 4x	unarmoured 5x	with concentric conductor 4x	Art.-No.
SMH4	1.5-4 E90	350	1.5 - 4			145653
	6-10 E90	380	6 - 10			145655
	16-25 E90	470	16 - 25			145656
	35-50 E90	500	35 - 50			145657
	70-95 E90	600	70 - 95			145659
	120-150 E90	600	120 - 150			145660
	185-240 E90	750	185 - 240			145661
SMH5	1.5-4 E90	350		1.5 - 4		145680
	6-10 E90	380		6 - 10		145681
	16-25 E90	470		16 - 25		145682
SMHC4	1.5-4 E90	350			1.5/1.5 - 4/4	145665
	6-10 E90	380			6/6 - 10/10	145666
	16-25 E90	470			16/16 - 25/16	145667
	35-50 E90	500			35/16 - 50/25	145668
	70-95 E90	600			70/35 - 95/50	145669
	120-150 E90	600			120/70 - 150/70	145670
	185-240 E90	750			185/95 - 240/120	145671

Straight-through joints



SMHF
Heat shrinkable straight-through joint
for telecommunication cables

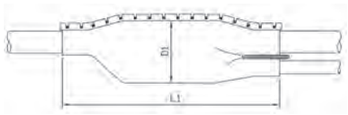
For connecting or branching telecommunication cables insulated with PVC or PE (e.g. A-2YF(L)2Y, A-02YSF(L)2Y, A-PWE2Y, A-PM, A-PM2Y, A-PMbc). Suitable for wire connectors.

Characteristics
- Compact dimensions
- Suitable for cut and uncut cables
- Removable (for repairs or switch-over)
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- Waterproof and moisture-resistant

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor areas (also with high humidity levels)
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Dimensions



Scope of delivery
Heat shrinkable sleeve, flexible locking bar, protective liner, drying agent, shield continuity wire with clamps, fire protection film, PVC insulation tape, cleaning tissue, emery cloth, assembly instructions

Optional accessory: Wire connectors AVS (see Connecting technology)
Assembly kit MSFA (required for each branch)

Type		L1 mm	D1 Ø over protective liner mm	Cable-Ø mm	Telecommunication cable: spliced with wire connector: 0.4 mm	0.6 mm	0.8 mm	Telecommunication cable: spliced with conductor connecting blocks: 0.4 mm	0.6 mm	0.8 mm	Art.-No.
					max. Number of wire pairs						
SMHF	43-8/330	330	43	8 - 35	30	20	10	40	30	20	145559
	43-8/570	570	43	8 - 35	70	40	20	100	70	30	145560
	68-15/380	380	68	15 - 55	100	50	30	150	100	50	145568
	68-15/690	690	68	15 - 55	150	100	50	250	150	70	145564
	93-25/400	400	93	25 - 68	150	100	70	400	250	100	145572
	93-25/690	690	93	25 - 68	200	200	100	500	300	150	145569
	120-28/430	430	120	28 - 94	200	200	150	500	300	200	145574

HEAT SHRINK TECHNOLOGY

Straight-through joints



VASMI
Heat shrinkable straight-through joint
with temperature colour indicator, for telecommunication cables

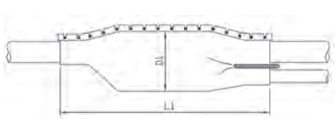
For connecting or branching telecommunication cables insulated with PVC or PE (e.g. A-2YF(L)2Y, A-02YSF(L)2Y, A-PWE2Y, A-PM, A-PM2Y, A-PMbc). Suitable for wire connectors.

Characteristics
- Compact dimensions
- With temperature colour indicator
- Suitable for cut and uncut cables
- Removable (for repairs or switch-over)
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- Waterproof and moisture-resistant

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor areas (also with high humidity levels)
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Dimensions



Scope of delivery
Heat shrinkable sleeve, flexible locking bar, protective liner, drying agent, shield continuity wire with clamps, fire protection film, PVC insulation tape, cleaning tissue, emery cloth, assembly instructions

Optional accessory: Wire connectors AVS (see Connecting technology)
Assembly kit MSFA (required for each branch)

Type		L1 mm	D1 Ø over protective liner mm	Cable-Ø mm	Telecommunication cable: spliced with wire connector: 0.4 mm	0.6 mm	0.8 mm	Telecommunication cable: spliced with conductor connecting blocks: 0.4 mm	0.6 mm	0.8 mm	Art.-No.
					max. Number of wire pairs						
VASMI	1 SRT	330	43	8 - 35	30	20	10	40	30	20	145562
	1 L SRT	390	43	8 - 35	70	40	20	100	70	30	145561
	2 SRT	380	68	15 - 55	100	50	30	150	100	50	145566
	2 L SRT	450	68	15 - 55	150	100	50	250	150	70	145565
	3 SRT	400	93	25 - 68	150	100	70	400	250	100	145571
	3 L SRT	500	93	25 - 68	200	200	100	500	300	150	145570

Straight-through joints



MSFA
Assembly kit
for branching with heat shrinkable joints SMHF and VASMI

For creating branches in heat shrinkable joints for telecommunication cables.

Characteristics

- Universally suitable for different diameters and numbers of wire pairs

Application/Suitability

- For heat shrinkable joints SMHF and VASMI

Scope of delivery
Branching kit SAS 120, branch clamp, fire protection wrapping

Note: An assembly kit is required for each branch.

Type	Art.-No.
MSFA	145578

HEAT SHRINK TECHNOLOGY

Straight-through joints



SM, SM-MA
Heat shrinkable universal straight-through joint
for polymeric cables, conductors and mass-impregnated paper cables

Universally suitable for connecting polymeric cables or conductors insulated with PVC, PE and XLPE (e.g. GKN, GN-CLN). With extra transition set to connect with mass-impregnated paper cables (GKN-PPb, GN-CLN-PPb). Suitable for compression connectors.

Characteristics
- Compact dimensions
- Wide conductor and cross-section range
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- Transversely waterproof
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

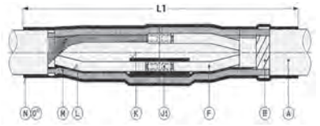
Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Note
- Straight-through joint for 4-core cables, e.g. GKN, GN-CLN

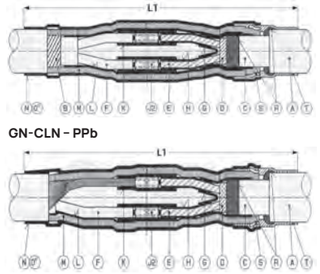
Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Storage conditions/Shelf life
- Unlimited shelf life

Dimensions



GKN – GN-CLN



GN-CLN – PPb

GKN – PPb

A = Outer sheath
B = CL armouring
C = Lead sheath
D = Paper belt
E = Paper insulated conductor
F = Conductor
G = Spreader cap SEMH4
H = Heat shrinkable tube SR2
J1 = Connector
J2 = Connector with separator
K = Heat shrinkable tube SRH3
L = High voltage insulation tape No. 62/38 mm
M = Copper braid tape No. 63/60 mm
N/O = Heat shrinkable cuff / Outer sleeve SRH2
R = Mastic tape HKB
S = High voltage insulation tape No. 62/19 mm
T = Heat shrinkable tube SRH

Scope of delivery
Outer sleeve, copper braid tape, inner protective sleeve (belt sleeve), inner sleeves, cleaning tissue, emery cloth, assembly instructions

Optional accessory: Compression connectors (see Connecting technology)
Accessory kit ZS-PPb (required for PPb cables)

Particularly for the Swiss market

→ Continued on the next page

Straight-through joints

→ Continuation

SM, SM-MA
Heat shrinkable universal straight-through joint

Particularly for the Swiss market

Type		L1 mm	Polymeric cable unarmoured / armoured 4x Nominal cross section per conductor mm²	Mass-impregnated paper cable (with accessory kit ZS-PPb) 4x Nominal cross section per conductor mm²	Art.-No.
Heat shrinkable tube for outer protection					
SM	4-10	400	4 - 10	4 - 10	126713
	16-50	500	16 - 50	16 - 35	126714
	50-95	750	50 - 95	50 - 95	126715
	95-150	850	95 - 150	95 - 150	180739
	120-240	1000	120 - 240	120 - 240	126716
Sleeve for outer protection					
SM-MA	16-50	500	16 - 50	16 - 35	126696
	50-95	750	50 - 95	50 - 95	126697
	95-150	850	95 - 150	95 - 150	180760
	120-240	1000	120 - 240	120 - 240	126698

HEAT SHRINK TECHNOLOGY

Straight-through joints



SMSV
Heat shrinkable universal straight-through joint
with screw connectors (with shear head bolts), for polymeric cables with concentric conductor

Universally suitable for connecting polymeric-insulated cables and conductors with concentric conductors and insulations made of PVC, PE and XLPE, e.g. GKN and GN-CLN.

Characteristics
- Compact dimensions
- Wide conductor and cross-section range
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- Transversely waterproof
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation

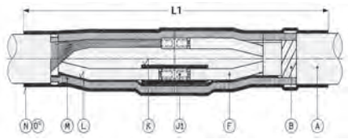
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Storage conditions/Shelf life
- Unlimited shelf life

Dimensions



A = Outer sheath
B = CL armouring
F = Conductor
J1 = Connector
K = Heat shrinkable tube SRH3
L = High voltage insulation tape No. 62/38 mm
M = Copper braid tape No. 63/60 mm
N/O = Heat shrinkable cuff / Outer sleeve SRH2

Scope of delivery
Outer sleeve, copper braid tape, inner protective sleeve (belt sleeve), inner sleeves, screw connectors (with shear head bolts, cleaning tissue, emery cloth, assembly instructions

Particularly for the Swiss market

Type		L1 mm	Polymeric cable with concentric conductor 3x Nominal cross section per conductor mm²	Art.-No.
SMSV	4-16	400	4 - 16	335141
	16-95	750	16 - 95	335143
	95-240	1000	95 - 240	335144

Straight-through joints



ZS-PPb

Accessory kit

for mass-impregnated paper cables for heat shrinkable universal straight-through joints SM and SM-MA

To build a transition joint for mass-impregnated paper cables for the heat shrink-able universal straight-through joints.

Characteristics
- Compact dimensions
- Wide conductor and cross-section range
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- High electrical insulating values
- High mechanical strength

Application/Suitability
- For heat shrinkable universal straight-through joints SM and SM-MA

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Scope of delivery
Spreader cap, heat shrinkable tubes, roughening strip

Particularly for the Swiss market

	Type	Art.-No.
ZS-PPb	4-10	126773
	16-35	126769
	25-50	366132
	50-95	126770
	120-240	126771

HEAT SHRINK TECHNOLOGY

Straight-through joints



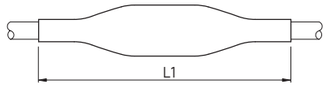
SMDH

Heat shrinkable straight-through joint

for armoured polymeric cables

Universally suitable for connecting light armoured polymeric cables insulated with PVC, PE and XLPE (e.g. GN-CLN). Suitable for compression connectors.

Dimensions



Characteristics
- Compact dimensions
- Wide conductor and cross-section range
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- Transversely waterproof
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Scope of delivery
Outer sleeve, copper braid tape, inner protective sleeve (belt sleeve), inner sleeves, cleaning tissue, emery cloth, assembly instructions

Optional accessory: Compression connectors (see Connecting technology)

Particularly for the Swiss market

			Polymeric cable armoured 4x	
Type		L1 mm	Nominal cross section per conductor mm²	Art.-No.
SMDH	1.5-10	330	1.5 - 10	126740
	16-35	500	16 - 35	126719
	50-95	800	50 - 95	126720

Straight-through joints



EASY-FIX
SRMH Cable repair kit
for damaged cables and conductors

For fast connecting and insulation of drilled or otherwise damaged cables without the necessity to insert the new lines. The cable repair kit restores the electric and mechanical properties in the installed cable.

Characteristics
- With hot melt adhesive
- Resistant to chemical agents
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- High flexibility
- High tensile strength
- Resistant to cold flow (thermally stable)
- Self-extinguishing

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- For repairing of damaged sheaths of all plastic- and rubber-insulated cables vand conductors

Scope of delivery
SRMH3: 1 heat shrinkable tube, 3 heat shrinkable crimp connectors, 4 cable ties
SRMH5: 1 heat shrinkable tube, 5 heat shrinkable crimp connectors, 5 cable ties

Note: Sales display with 20 SRMH cable repair kits, packed individually.

Type		Polymeric cable unarmoured 3x	Polymeric cable unarmoured 5x	Art.-No.
		Nominal cross section per conductor mm²		
SRMH	3	1.5 - 2.5		254684
	5		1.5 - 2.5	345619

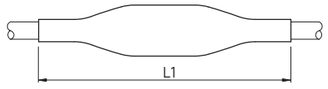
Transition joints



SMH4...Pb-RF
Heat shrinkable transition joint
with solderless earthing wire connection, for polymeric cables and mass-impregnated paper cables

Universally suitable for transition from mass-impregnated paper cables to polymeric-insulated cables made of PVC, PE and XLPE, e.g. N(A)KBA on N(A)YY. Suitable for compression connectors on aluminium or copper cables.

Dimensions



Characteristics
- Compact dimensions
- Wide conductor and cross-section range
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- Transversely waterproof
- High electrical insulating values
- High mechanical strength

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Scope of delivery
Outer sleeve, earthing wire, pressure spring, spreader cap, inner sleeves, core insulating tubes, cleaning tissue, emery cloth, assembly instructions

Optional accessory: Compression connectors (see Connecting technology)
Note: Use only connectors with separator.

Type		L1 mm	Polymeric cable unarmoured 4x	Mass-impregnated paper cable 4x	Art.-No.
			Nominal cross section per conductor mm²		
SMH4	70-150 Pb-RF	1000	70 - 150	70 - 150	145354
	150-300 Pb-RF	1200	150 - 300	150 - 300	150826

Transition joints



SMHSV4...Pb-RF

Heat shrinkable transition joint

with screw connectors, with solderless earthing wire connection, for polymeric cables and mass-impregnated paper cables

Universally suitable for transition from mass-impregnated paper cables to polymeric-insulated cables made of PVC, PE and XLPE, e.g. NAKLEY, N(A)KBA on N(A)YY. With mechanical connectors with shear heads bolts suitable for aluminium or copper cables.

Characteristics
- Compact dimensions
- Wide conductor and cross-section range
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- Transversely waterproof
- High electrical insulating values
- High mechanical strength

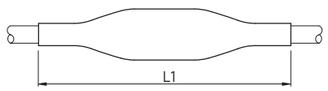
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Storage conditions/Shelf life
- Unlimited shelf life

Dimensions



Scope of delivery
Outer sleeve, earthing wire, pressure spring, spreader cap, inner sleeves, screw connectors CSV-T with shear head bolts, core insulating tubes, cleaning tissue, emery cloth, assembly instructions

Type		L1 mm	Polymeric cable unarmoured 4x	Mass-impregnated paper cable NAKLEY 3x	Mass-impregnated paper cable N(A)KBA 4x	Art.-No.
			Nominal cross section per conductor mm²			
SMHSV4	6-50 Pb-RF	750	6 - 50	6 - 50	6 - 35	268322
	25-95 Pb-RF	900	25 - 95	25 - 95	25 - 70	268323
	50-150 Pb-RF	1000	50 - 150	50 - 150	50 - 120	268324
	95-240 Pb-RF	1200	95 - 240	95 - 240	95 - 185	307669

HEAT SHRINK TECHNOLOGY

Pot end joints



SEMH...-K

Voltage-resistant pot end joint

with inner caps and outer cap, for polymeric cables and conductors

Universal pot end cable terminations of unarmoured polymeric-insulated cables and conductors as well as polymeric-insulated cables with concentric conductors with insulation made of PVC, PE and XLPE, e.g. N(A)YY, N(A)XY, TT, N(A)2Y2Y, N(A)2X2Y, N(A)YC(W)Y.

Characteristics
- Wide conductor and cross-section range
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- Transversely waterproof
- High electrical insulating values
- High mechanical strength

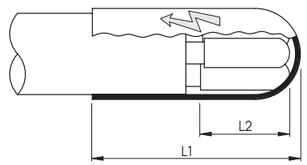
Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Dimensions



Scope of delivery
Sealing caps, heat shrinkable cap with voltage arrow, cleaning tissue, emery cloth, assembly instructions

Type		L1 mm	L2 mm	Polymeric cable unarmoured 4x	Polymeric cable unarmoured 5x	Polymeric cable with concentric conductor 4x	Art.-No.
				Nominal cross section per conductor mm²			
SEMH4-K	6-35	100	47	6 - 35		6/6 - 35/35	145388
	35-150	150	75	35 - 150		35/35 - 150/150	145386
	185-300	215	100	185 - 300		185/185 - 300/300	145391
SEMH5-K	6-35	100	47		6 - 35		360710

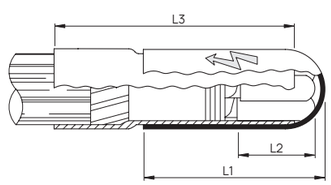
Pot end joints



SEMHK4...Pb
Voltage-resistant pot end joint
with inner cap, for mass-impregnated paper cables

Pot end cable terminations for mass-impregnated paper cables (e.g. N(A)KBA, NAKLEY, PPb).

Dimensions



Characteristics
- Wide conductor and cross-section range
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- Transversely waterproof
- High electrical insulating values
- High mechanical strength

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

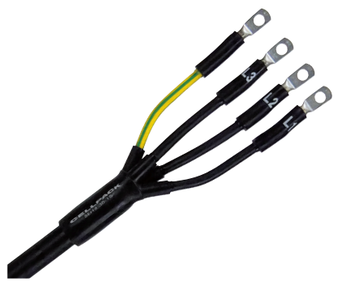
Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Scope of delivery
Sealing tube, heat shrinkable cap with voltage arrow, sealing caps, cleaning tissue, emery cloth, assembly instructions

Type		L1 mm	L2 mm	L3 mm	Mass-impregnated paper cable 4x Nominal cross section per conductor mm²	Art.-No.
SEMHK4	16-50 Pb	75	50	200	16 - 50	145396
	70-120 Pb	145	70	200	70 - 120	145397
	95-300 Pb	140	100	250	95 - 300	145398

HEAT SHRINK TECHNOLOGY

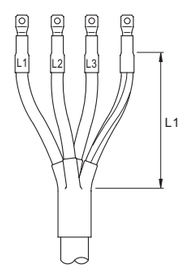
Cable terminations



SFEX
Heat shrinkable cable termination
for unarmoured polymeric cables and conductors

Universally suitable for connecting the polymeric-insulated cables to electrical equipment, for cables insulated with PE, XLPE, PVC and cable sheaths insulated with PVC or PE. Suitable for compression cable lugs on aluminium and copper cables.

Dimensions



Characteristics
- Compact dimensions
- Wide conductor and cross-section range
- Resistant to chemical agents
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- 100 % waterproof
- High electrical insulating values
- High mechanical strength

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Outdoor

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Note
- SFEX4 for power cables and conductors with green-yellow wire marking

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Scope of delivery
Core insulating tubes, spreader cap, sealing tubes, cleaning tissue, emery cloth, assembly instructions

Optional accessory: Compression cable lugs (see Connecting technology)
Note: Waterproof cable lugs must be used for outdoor cable terminations.

Type		L1 mm	Polymeric cable unarmoured 4x Nominal cross section per conductor mm²	Art.-No.
SFEX4	25-50	400	25 - 50	145439
	70-150	500	70 - 150	145444
	150-300	500	150 - 300	145449

Cable terminations



SFEH
Heat shrinkable cable termination
for unarmoured polymeric cables

Universally suitable to terminate polymeric cables and electrical equipment. Suitable for cables insulated with PE, VPE, PVC und cable sheaths insulated with PVC or PE suitable for compression lugs on aluminium and copper conductors.

Characteristics
- Compact dimensions
- Wide conductor and cross-section range
- Resistant to chemical agents
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- High electrical insulating values
- High mechanical strength

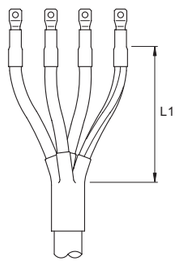
Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Dimensions



L1 = user-defined

Scope of delivery
Spreader cap, sealing tubes, cleaning tissue, emery cloth, assembly instructions

Optional accessory: Compression cable lugs (see Connecting technology)

		Polymeric cable unarmoured 4x	
Type		**Nominal cross section per conductor mm²**	**Art.-No.**
SFEH4	25-50	25 - 50	145438
	70-150	70 - 150	145443
	150-300	150 - 300	145448

HEAT SHRINK TECHNOLOGY

Cable terminations



SEH4...V-S
Heat shrinkable indoor cable termination
for armoured polymeric cables

For connecting polymeric cables to distribution cupboards and panels. Suitable for PVC and XLPE insulated cables and PVC and PE cable sheaths with protective armouring (e.g. GN-CLN). Suitable for compression lugs on aluminium and copper conductors.

Characteristics
- Compact dimensions
- Wide conductor and cross-section range
- Resistant to chemical agents
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- Transversely waterproof
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation

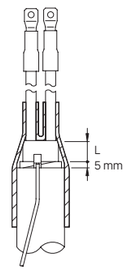
Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Dimensions



Scope of delivery
Sealing tubes, spreader cap, cleaning tissue, emery cloth, assembly instructions

Optional accessory: Compression cable lugs (see Connecting technology)

Particularly for the Swiss market

			Polymeric cable armoured 4x	
Type		**L mm**	**Nominal cross section per conductor mm²**	**Art.-No.**
SEH4	10-35 V-S	20	10 - 35	131999

Cable terminations



SEH4...V-C
Heat shrinkable indoor cable termination
for polymeric cables with concentric conductor

For connecting polymeric cables to distribution cupboards and panels. Suitable for PVC and XLPE insulated cables and PVC and PE cable sheaths with concentric conductor (e.g. GKN). Suitable for compression lugs on aluminium and copper conductors.

Characteristics
- Compact dimensions
- Wide conductor and cross-section range
- Resistant to chemical agents
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- Transversely waterproof
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation

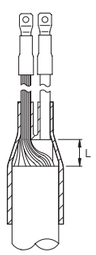
Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Dimensions



Scope of delivery
Sealing tubes, heat shrinkable tube (Green-Yellow), spreader cap, cleaning tissue, emery cloth, assembly instructions

Optional accessory: Compression cable lugs (see Connecting technology)

Particularly for the Swiss market

			Polymeric cable with concentric conductor 3x	
Type		L mm	Nominal cross section per conductor mm²	Art.-No.
SEH4	10-35 V-C	20	10/10 - 35/35	126822
	50-95 V-C	20	50/50 - 95/95	126823
	120-240 V-C	20	120/70 - 240/120	126824

HEAT SHRINK TECHNOLOGY

Cable terminations



SEH4...S-C
Heat shrinkable indoor cable termination
for polymeric cables with concentric conductor

For connecting polymeric cables to distribution cupboards and panels. Suitable for PVC and XLPE insulated cables and PVC and PE cable sheaths with concentric conductor (e.g. GKN). Suitable for compression lugs on aluminium and copper conductors.

Characteristics
- Compact dimensions
- Wide conductor and cross-section range
- Resistant to chemical agents
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- Transversely waterproof
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation

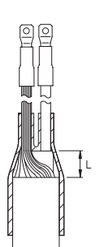
Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Dimensions



Scope of delivery
Sealing tubes, heat shrinkable tube (Green-Yellow), spreader cap, cleaning tissue, emery cloth, assembly instructions

Optional accessory: Compression cable lugs (see Connecting technology)

Particularly for the Swiss market

			Polymeric cable with concentric conductor 3x	
Type		L mm	Nominal cross section per conductor mm²	Art.-No.
SEH4	10-35 S-C	20	10/10 - 35/35	126855
	95-150 S-C	20	95/50 - 150/70	126847



SEH4...A+Z

Heat shrinkable indoor and outdoor cable termination

for polymeric cable with concentric conductor and armoured polymeric cables, with connectors

Universally suitable for connecting polymeric cables and cable sheaths insulated with PVC and PE with concentric conductor (e.g. GKN) or protective armour (e.g. GN-CLN). Suitable for compression lugs or compression connectors on aluminium and copper conductors.

Characteristics
- Compact dimensions
- Wide conductor and cross-section range
- Resistant to chemical agents
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- Transversely waterproof
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation

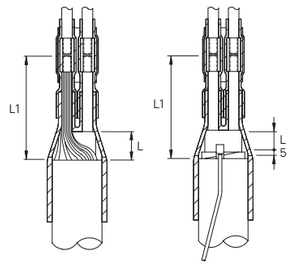
Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- For double compression connectors with separators complying with DIN 46267

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Dimensions



Scope of delivery
Sealing tubes, spreader cap, core insulating tubes, double compression connectors (according type, on choice), cleaning tissue, emery cloth, assembly instructions

Optional accessory: Compression cable lugs (see Connecting technology)
Compression connectors (see Connecting technology)
Note: Use only connectors with separator.

Particularly for the Swiss market

Type		L mm	L1 mm	Polymeric cable: with concentric conductor, 3x: Nominal cross section per conductor mm²	Polymeric cable: armoured, 4x: Nominal cross section per conductor mm²	Art.-No.
incl. 4 compression type connectors with separator						
SEH4	25 A+Z	20	85	25/25	25	126805
	35 A+Z	20	105	35/35	35	126806
	50 A+Z	20	105	50/50	50	126807

HEAT SHRINK TECHNOLOGY

Cable terminations



SR2LK, SR2LK-PEN

Heat shrinkable tube kit

for phase marking

Universally suitable for phase marking, for polymeric-insulated cables and conductors in connection area.

Characteristics
- Resistant to chemical agents
- Stabilized against UV rays
- Halogen-free
- Non-corrosive
- Infusible
- Superior electrical properties
- High mechanical strength
- Resistant to cold flow (thermally stable)

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Phase marking

Material
- Cross-linked polyolefin
- Free of lead and cadmium

Colours

Black

Scope of delivery
SR2LK: Black heat shrinkable tube with white markings, 1 kit = L1, L2, L3, N per each piece
SR2LK-PEN: Black heat shrinkable tube with white markings, 1 kit = L1, L2, L3, PEN per each piece

Note: Green-Yellow heat shrinkable tube with black inscription on request.

Type		L mm	Inner-Ø mm: before shrinking	Inner-Ø mm: after shrinking	Recovered wall thickness mm	Art.-No.
Imprint: L1, L2, L3, N						
SR2LK	25-70	50	22	6	2.5	145093
	70-240	80	40	12	2.5	145096
	150-500	125	56	17	2.5	145097
Imprint: L1, L2, L3, PEN						
SR2LK-PEN	25-70	50	22	6	2.5	165612
	70-240	80	40	12	2.5	154982
	150-500	125	56	16	2,7	193872

Wall ducts



SHE

Heat shrinkable wall duct
for cables and conductors

Universally suitable for insertion of all types of cables and conduits through building walls.

Characteristics
- Wide conductor and cross-section range
- Extension possible
- Sealant-coated on the inside
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- 100 % waterproof
- Longitudinally watertight up to 1.0 bar
- High mechanical strength

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Mechanical protection for cables and conduits routed through walls

Note
- For very thick walls two wall ducts may be joined together. To seal the wall duct, we recommend our putty/ sealing compound LG or universal sealing compound Duct Seal and to centre the wall duct to use our KZ centering aid, which consists of PE foam.

Scope of delivery
Wall duct, assembly instructions

Optional accessory: Putty/sealing compound LG (see Accessories)
Universal sealing compound DUCT SEAL (see Accessories)
Centring aid KZ (see Accessories)

Type		L1 mm	Cable-Ø mm	Inner-Ø mm		max. Wall thickness mm	Wall break-through mm	Art.-No.
				before shrinking	after shrinking			
SHE	14-8	800	8 - 14	25	6	500	40	145600
	26-12	800	12 - 26	35	10	500	55	145604
	41-16	800	16 - 41	47	16	500	70	145616
	54-26	800	26 - 54	65	25	500	90	145611
	95-54	800	54 - 95	115	35	500	140	145614

HEAT SHRINK TECHNOLOGY

Heat shrinkable tubes

Overview: BBC Cellpack Heat shrinkable tubes

Products	Properties					
	with adhesive	without adhesive	black	coloured	halogen-free	self-extinguishing
Thin wall heat shrinkable tubes						
Shrink ratio 2:1						
SRC1	–	●	●	–	●	–
SR1F	–	●	●	●	–	●
SB	–	●	●	●	–	●
SBS	–	●	●	–	–	●
MBS	–	●	●	– / ●	● / –	– / ●
Shrink ratio 3:1						
SR1F3	–	●	●	●	–	●
SB	–	●	●	●	–	●
Medium wall heat shrinkable tubes						
Shrink ratio 3:1						
SRUM	●	–	●	–	–	●
SR2	–	●	●	●	●	–
SRH2	●	–	●	–	●	–
SRFH2	●	–	●	–	–	●
MMK	●	–	●	–	–	●
Shrink ratio 4:1						
SRUM	●	–	●	–	–	●
Thick wall heat shrinkable tubes						
Shrink ratio 3:1						
SR3	–	●	●	–	●	–
SRH3	●	–	●	–	●	–
SRFH3	●	–	●	–	–	●
SRBK	●	–	●	–	●	–

● available
– not available

Heat shrinkable tubes



SRC1
Heat shrinkable thin wall tube
halogen-free, shrink ratio 2 : 1, without adhesive

Characteristics
- Thin wall
- Inscribable
- Resistant to chemical agents
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- Non-corrosive
- Infusible
- High flexibility
- Superior electrical properties
- High tensile strength
- Resistant to cold flow (thermally stable)

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Insulating
- Bundling
- Marking
- Corrosion protection
- Mechanical protection

Material
- Cross-linked polyolefin
- Free of lead and cadmium

Test standards
- Corresponds to MIL-I-23053/5 class 1 and 2

Colours

Black

Scope of delivery
Thin wall heat shrinkable tube, on spool or in lengths

Note: A standard spool may include sections which have been tied together. Other lengths available on request.

Type		L m	Inner-Ø inch	Inner-Ø mm		Recovered wall thickness mm	Art.-No.
			before shrinking	before shrinking	after shrinking		
Spool I Colour: Black							
SRC1	1.2-0.6	300	3/64	1,2	0,6	0,41	145102
	1.6-0.8	300	1/16	1,6	0,8	0,43	145103
	2.4-1.2	300	3/32	2,4	1,2	0,51	145104
	3.2-1.6	300	1/8	3,2	1,6	0,51	145105
	4.8-2.4	300	3/16	4,8	2,4	0,52	145106
	6.4-3.2	300	1/4	6,4	3,2	0,64	145107
	9.5-4.8	150	3/8	9,5	4,8	0,64	145108
	12.7-6.4	100	1/2	12,7	6,4	0,64	145111
	19.1-9.5	50	3/4	19,1	9,5	0,76	145115
	25.4-12.7	50	1	25,4	12,7	0,89	145116
	38.1-19.1	50	1 1/2	38,1	19,1	1,02	145118
	51.0-25.4	25	2	51	25,4	1,14	145119
Lengths I Colour: Black							
SRC1	1.2-0.6	1	3/64	1,2	0,6	0,41	145120
	1.6-0.8	1	1/16	1,6	0,8	0,43	145121
	2.4-1.2	1	3/32	2,4	1,2	0,51	145122
	3.2-1.6	1	1/8	3,2	1,6	0,51	145123
	4.8-2.4	1	3/16	4,8	2,4	0,52	145124
	6.4-3.2	1	1/4	6,4	3,2	0,64	145125
	9.5-4.8	1	3/8	9,5	4,8	0,64	145126
	12.7-6.4	1	1/2	12,7	6,4	0,64	145127
	19.1-9.5	1	3/4	19,1	9,5	0,76	145128
	25.4-12.7	1	1	25,4	12,7	0,89	145129
	38.1-19.1	1	1 1/2	38,1	19,1	1,02	145130
	51.0-25.4	1	2	51	25,4	1,14	145131

→ Continued on the next page

HEAT SHRINK TECHNOLOGY

Heat shrinkable tubes

→ Continuation

SRC1
Heat shrinkable thin wall tube

Technical data	Value	Test standard
Physical properties		
Elongation at break	200 %	ASTM D 638
Tensile strength at break	10 MPa	ASTM D 638
Longitudinal shrinkage	≤ 10 %	ASTM D 2671
Shrink ratio	2:1	
Thermal properties		
Operating temperature range	-30 °C up to 105 °C	IEC 216
Shrinkage temperature	› 90 °C	CPT Test
Flexibility at low temperatures	-30 °C	ASTM-D 2671 C
Electrical properties		
Specific volume resistivity	10^{14} Ω x cm	ASTM D 257
Chemical properties		
Corrosion	None	ASTM D 2671 B
Resistance to fungus and decay	No growth	AMS-DTL-7444

Heat shrinkable tubes



SR1F

Heat shrinkable thin wall tube

self-extinguishing, shrink ratio 2 : 1, without adhesive

Characteristics
- Thin wall
- Inscribable
- Resistant to chemical agents
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Non-corrosive
- Infusible
- High flexibility
- Superior electrical properties
- High tensile strength
- Resistant to cold flow (thermally stable)
- Self-extinguishing (except transparent)

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Insulating
- Bundling
- Marking
- Corrosion protection
- Mechanical protection

Material
- Cross-linked polyolefin
- Free of lead and cadmium

Test standards
- Approved according to UL File No.: E 172094
- Corresponds to MIL-I-23053/5 class 1

Colours

Black, Blue, Yellow, Red, Green-Yellow

Brown, Green, White, Grey, Transparent

Scope of delivery
Thin wall heat shrinkable tube, on spool or in lengths

Note: A standard spool may include sections which have been tied together. Other lengths available on request.

Type		L m	Inner-Ø inch	Inner-Ø mm		Recovered wall thickness mm	Art.-No.
			before shrinking	before shrinking	after shrinking		
Spool I Colour: Black							
SR1F	1.6-0.8	300	1/16	1,6	0,8	0,43	126954
	2.4-1.2	300	3/32	2,4	1,2	0,51	126960
	3.2-1.6	300	1/8	3,2	1,6	0,51	126961
	4.8-2.4	300	3/16	4,8	2,4	0,52	126969
	6.4-3.2	300	1/4	6,4	3,2	0,64	126891
	9.5-4.8	150	3/8	9,5	4,8	0,64	126899
	12.7-6.4	100	1/2	12,7	6,4	0,64	126907
	19.1-9.5	50	3/4	19,1	9,5	0,76	126916
	25.4-12.7	50	1	25,4	12,7	0,89	126924
	38.1-19.1	50	1 1/2	38,1	19,1	1,02	126932
	51.0-25.4	25	2	51	25,4	1,14	126940
	76.0-38.0	25	3	76	38	1,27	126945
	102.0-51.0	25	4	102	51	1,40	126950
Lengths I Colour: Black							
SR1F	1.2-0.6	1	3/64	1,2	0,6	0,41	457265
	1.6-0.8	1	1/16	1,6	0,8	0,43	457266
	2.4-1.2	1	3/32	2,4	1,2	0,51	457267
	3.2-1.6	1	1/8	3,2	1,6	0,51	457268
	4.8-2.4	1	3/16	4,8	2,4	0,52	457269
	6.4-3.2	1	1/4	6,4	3,2	0,64	457280
	9.5-4.8	1	3/8	9,5	4,8	0,64	457281
	12.7-6.4	1	1/2	12,7	6,4	0,64	457282
	19.1-9.5	1	3/4	19,1	9,5	0,76	457283
	25.4-12.7	1	1	25,4	12,7	0,89	457284
	38.1-19.1	1	1 1/2	38,1	19,1	1,02	457285
	51.0-25.4	1	2	51	25,4	1,14	457286
	76.0-38.0	1	3	76	38	1,27	457287
	102.0-51.0	1	4	102	51	1,40	457288
Lengths I Colour: Green-Yellow							
SR1F	1.2-0.6	1	3/64	1,2	0,6	0,41	457289
	1.6-0.8	1	1/16	1,6	0,8	0,43	457290

→ Continued on the next page

HEAT SHRINK TECHNOLOGY

Heat shrinkable tubes

Type		L m	Inner-Ø inch	Inner-Ø mm		Recovered wall thickness mm	Art.-No.
			before shrinking	before shrinking	after shrinking		
(Continuation) Lengths I Colour: Green-Yellow							
SR1F	2.4-1.2	1	3/32	2,4	1,2	0,51	457291
	3.2-1.6	1	1/8	3,2	1,6	0,51	457292
	4.8-2.4	1	3/16	4,8	2,4	0,52	457293
	6.4-3.2	1	1/4	6,4	3,2	0,64	457294
	9.5-4.8	1	3/8	9,5	4,8	0,64	457295
	12.7-6.4	1	1/2	12,7	6,4	0,64	457296
	19.1-9.5	1	3/4	19,1	9,5	0,76	457297
	25.4-12.7	1	1	25,4	12,7	0,89	457298
	38.1-19.1	1	1 1/2	38	19	1,02	457299
	51.0-25.4	1	2	51	25	1,14	457300
Lengths I Colour: Red							
SR1F	2.4-1.2	1	3/32	2,4	1,2	0,51	457322
	3.2-1.6	1	1/8	3,2	1,6	0,51	457323
	4.8-2.4	1	3/16	4,8	2,4	0,52	457324
	6.4-3.2	1	1/4	6,4	3,2	0,64	457325
	9.5-4.8	1	3/8	9,5	4,8	0,64	457326
	12.7-6.4	1	1/2	12,7	6,4	0,64	457327
	19.1-9.5	1	3/4	19,1	9,5	0,76	457328
	25.4-12.7	1	1	25,4	12,7	0,89	457329
	38.1-19.1	1	1 1/2	38,1	19,1	1,02	457330
	51.0-25.4	1	2	51	25,4	1,14	457331
Lengths I Colour: Blue							
SR1F	2.4-1.2	1	3/32	2,4	1,2	0,51	457312
	3.2-1.6	1	1/8	3,2	1,6	0,51	457313
	4.8-2.4	1	3/16	4,8	2,4	0,52	457314
	6.4-3.2	1	1/4	6,4	3,2	0,64	457315
	9.5-4.8	1	3/8	9,5	4,8	0,64	457316
	12.7-6.4	1	1/2	12,7	6,4	0,64	457317
	19.1-9.5	1	3/4	19,1	9,5	0,76	457318
	25.4-12.7	1	1	25,4	12,7	0,89	457319
	38.1-19.1	1	1 1/2	38,1	19,1	1,02	457320
	51.0-25.4	1	2	51	25,4	1,14	457321
Lengths I Colour: Yellow							
SR1F	3.2-1.6	1	1/8	3,2	1,6	0,51	457364
	4.8-2.4	1	3/16	4,8	2,4	0,52	457365
	6.4-3.2	1	1/4	6,4	3,2	0,64	457366
	9.5-4.8	1	3/8	9,5	4,8	0,64	457367
	12.7-6.4	1	1/2	12,7	6,4	0,64	457368
	19.1-9.5	1	3/4	19,1	9,5	0,76	457369
	25.4-12.7	1	1	25,4	12,7	0,89	457370
	38.1-19.1	1	1 1/2	38,1	19,1	1,02	457371
Lengths I Colour: Transparent							
SR1F	2.4-1.2	1	3/32	2,4	1,2	0,51	457301
	3.2-1.6	1	1/8	3,2	1,6	0,51	457302
	4.8-2.4	1	3/16	4,8	2,4	0,52	457303
	6.4-3.2	1	1/4	6,4	3,2	0,64	457304
	12.7-6.4	1	1/2	12,7	6,4	0,64	457305
	19.1-9.5	1	3/4	19,1	9,5	0,76	457306
	25.4-12.7	1	1	25,4	12,7	0,89	457307
	38.1-19.1	1	1 1/2	38,1	19,1	1,02	457308
	51.0-25.4	1	2	51	25,4	1,14	457309
	76.0-38.0	1	3	76	38	1,27	457310
	102.0-51.0	1	4	102	51	1,40	457311
Lengths I Colour: White							
SR1F	2.4-1.2	1	3/32	2,4	1,2	0,51	457332
	3.2-1.6	1	1/8	3,2	1,6	0,51	457333
	4.8-2.4	1	3/16	4,8	2,4	0,52	457334
	6.4-3.2	1	1/4	6,4	3,2	0,64	457336
	9.5-4.8	1	3/8	9,5	4,8	0,64	457337

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Heat shrinkable tubes

Type		L m	Inner-Ø inch before shrinking	Inner-Ø mm before shrinking	Inner-Ø mm after shrinking	Recovered wall thickness mm	Art.-No.
(Continuation) Lengths I Colour: White							
SR1F	12.7-6.4	1	1/2	12,7	6,4	0,64	457338
	19.1-9.5	1	3/4	19,1	9,5	0,76	457339
	25.4-12.7	1	1	25,4	12,7	0,89	457340
	38.1-19.1	1	1 1/2	38,1	19,1	1,02	457341
	51.0-25.4	1	2	51	25,4	1,14	457342
Lengths I Colour: Grey							
SR1F	2.4-1.2	1	3/32	2,4	1,2	0,51	457343
	3.2-1.6	1	1/8	3,2	1,6	0,51	457344
	4.8-2.4	1	3/16	4,8	2,4	0,52	457345
	6.4-3.2	1	1/4	6,4	3,2	0,64	457346
	9.5-4.8	1	3/8	9,5	4,8	0,64	457347
	12.7-6.4	1	1/2	12,7	6,4	0,64	457348
	19.1-9.5	1	3/4	19,1	9,5	0,76	457349
	25.4-12.7	1	1	25,4	12,7	0,89	457350
	38.1-19.1	1	1 1/2	38,1	19,1	1,02	457351
	51.0-25.4	1	2	51	25,4	1,14	457353
Lengths I Colour: Brown							
SR1F	3.2-1.6	1	1/8	3,2	1,6	0,51	457356
	4.8-2.4	1	3/16	4,8	2,4	0,52	457357
	6.4-3.2	1	1/4	6,4	3,2	0,64	457358
	9.5-4.8	1	3/8	9,5	4,8	0,64	457359
	12.7-6.4	1	1/2	12,7	6,4	0,64	457360
	19.1-9.5	1	3/4	19,1	9,5	0,76	457361
	25.4-12.7	1	1	25,4	12,7	0,89	457362
	38.1-19.1	1	1 1/2	38,1	19,1	1,02	457363
Lengths I Colour: Green							
SR1F	3.2-1.6	1	1/8	3,2	1,6	0,51	457372
	4.8-2.4	1	3/16	4,8	2,4	0,52	457373
	6.4-3.2	1	1/4	6,4	3,2	0,64	457374
	9.5-4.8	1	3/8	9,5	4,8	0,64	457375
	12.7-6.4	1	1/2	12,7	6,4	0,64	457376
	19.1-9.5	1	3/4	19,1	9,5	0,76	457377
	25.4-12.7	1	1	25,4	12,7	0,89	457378
	38.1-19.1	1	1 1/2	38,1	19,1	1,02	457379

Technical data	Value	Test standard
Physical properties		
Elongation at break	350 %	ASTM D 638
Tensile strength at break	13 MPa	ASTM D 638
Longitudinal shrinkage	≤ 10 %	ASTM D 2671
Shrink ratio	2:1	IEC 811-1-1
Thermal properties		
Operating temperature range	-55 °C up to 135 °C	IEC 216
Shrinkage temperature	> 90 °C	CPT Test
Burning behaviour	self-extinguishing	UL 224
Flexibility at low temperatures	-55 °C	ASTM-D 2671 C
Electrical properties		
Dielectric strength	20 kV/mm	ASTM D 2671
Specific volume resistivity	10^{14} Ω x cm	ASTM D 257
Chemical properties		
Corrosion	None	ASTM D 2671 B
Resistance to fungus and decay	No growth	AMS-DTL-7444

HEAT SHRINK TECHNOLOGY

Heat shrinkable tubes



SR1F3
Heat shrinkable thin wall tube
self-extinguishing, shrink ratio 3 : 1, without adhesive

Colours

Black, Blue, Yellow, Red, Grün-Gelb

Brown, Green, White, Grey, Transparent

Characteristics
- Thin wall
- Inscribable
- Resistant to chemical agents
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Non-corrosive
- Infusible
- High flexibility
- Superior electrical properties
- High tensile strength
- Resistant to cold flow (thermally stable)
- Self-extinguishing (except transparent)

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Insulating
- Bundling
- Marking
- Corrosion protection
- Mechanical protection

Material
- Cross-linked polyolefin
- Free of lead and cadmium

Test standards
- Approved according to UL File No.: E 172094
- Corresponds to MIL-I-23053/5 class 1

Scope of delivery
Thin wall heat shrinkable tube, on spool or in lengths

Note: A standard spool may include sections which have been tied together. Other lengths available on request.

Type		L m	Inner-Ø mm before shrinking	Inner-Ø mm after shrinking	Recovered wall thickness mm	Art.-No.
Spool I Colour: Black						
SR1F3	1.5-0.5	300	1.5	0.5	0.45	126977
	3.0-1.0	300	3	1	0.55	127242
	6.0-2.0	300	6	2	0.65	126990
	9.0-3.0	150	9	3	0.75	126995
	12.0-4.0	100	12	4	0.75	127000
	18.0-6.0	50	18	6	0.75	127005
	24.0-8.0	50	24	8	1.00	127010
	39.0-13.0	30	39	13	1.15	127015
Lengths I Colour: Black						
SR1F3	1.5-0.5	1	1.5	0.5	0.45	144362
	3.0-1.0	1	3	1	0.55	144368
	6.0-2.0	1	6	2	0.65	144378
	9.0-3.0	1	9	3	0.75	144385
	12.0-4.0	1	12	4	0.75	144392
	18.0-6.0	1	18	6	0.75	144399
	24.0-8.0	1	24	8	1.00	144406
	39.0-13.0	1	39	13	1.15	144413
Lengths I Colour: Blue						
SR1F3	3.0-1.0	1	3	1	0.55	144371
	6.0-2.0	1	6	2	0.65	144381
	9.0-3.0	1	9	3	0.75	144388
	12.0-4.0	1	12	4	0.75	144395
	18.0-6.0	1	18	6	0.75	144401
	24.0-8.0	1	24	8	1.00	144408
	39.0-13.0	1	39	13	1.15	144415
Lengths I Colour: Yellow						
SR1F3	3.0-1.0	1	3	1	0.55	144372
	6.0-2.0	1	6	2	0.65	144382
	9.0-3.0	1	9	3	0.75	144389
	12.0-4.0	1	12	4	0.75	144396
	18.0-6.0	1	18	6	0.75	144402
	24.0-8.0	1	24	8	1.00	144409
	39.0-13.0	1	39	13	1.15	144416

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Heat shrinkable tubes

Type		L m	Inner-Ø mm before shrinking	Inner-Ø mm after shrinking	Recovered wall thickness mm	Art.-No.
Lengths I Colour: Red						
SR1F3	1.5-0.5	1,0	1,5	0,5	0,45	144366
	3.0-1.0	1,0	3	1	0,55	144374
	6.0-2.0	1,0	6	2	0,65	144383
	9.0-3.0	1,0	9	3	0,75	144390
	12.0-4.0	1,0	12	4	0,75	144397
	18.0-6.0	1,0	18	6	0,75	144403
	24.0-8.0	1,0	24	8	1,00	144410
	39.0-13.0	1,0	39	13	1,15	144417
Lengths I Colour: Green						
SR1F3	1.5-0.5	1,0	1,5	0,5	0,45	204010
	3.0-1.0	1,0	3	1	0,55	204014
	6.0-2.0	1,0	6	2	0,65	154613
	9.0-3.0	1,0	9	3	0,75	204021
	12.0-4.0	1,0	12	4	0,75	204025
	24.0-8.0	1,0	24	8	1,00	204031
	39.0-13.0	1,0	39	13	1,15	144419
Lengths I Colour: White						
SR1F3	1.5-0.5	1,0	1,5	0,5	0,45	144367
	3.0-1.0	1,0	3	1	0,55	144375
	6.0-2.0	1,0	6	2	0,65	144384
	9.0-3.0	1,0	9	3	0,75	144391
	12.0-4.0	1,0	12	4	0,75	144398
	18.0-6.0	1,0	18	6	0,75	144404
	24.0-8.0	1,0	24	8	1,00	144411
	39.0-13.0	1,0	39	13	1,15	144418
Lengths I Colour: Grey						
SR1F3	1.5-0.5	1,0	1,5	0,5	0,45	204008
	3.0-1.0	1,0	3	1	0,55	204012
	6.0-2.0	1,0	6	2	0,65	204016
	9.0-3.0	1,0	9	3	0,75	204019
	12.0-4.0	1,0	12	4	0,75	204023
	18.0-6.0	1,0	18	6	0,75	204027
	24.0-8.0	1,0	24	8	1,00	204030
	39.0-13.0	1,0	39	13	1,15	204033
Lengths I Colour: Transparent						
SR1F3	1.5-0.5	1	1,5	0,5	0,45	144363
	3.0-1.0	1	3	1	0,55	144369
	6.0-2.0	1	6	2	0,65	144379
	9.0-3.0	1	9	3	0,75	144386
	12.0-4.0	1	12	4	0,75	144393
	18.0-6.0	1	18	6	0,75	144400
	24.0-8.0	1	24	8	1,00	144407
	39.0-13.0	1	39	13	1,15	144414
Lengths I Colour: Brown						
SR1F3	3.0-1.0	1	3	1	0,55	204013
	6.0-2.0	1	6	2	0,65	204017
	9.0-3.0	1	9	3	0,75	204020
	12.0-4.0	1	12	4	0,75	204024
	18.0-6.0	1	18	6	0,75	204028
	24.0-8.0	1	24	8	1,00	144412
	39.0-13.0	1	39	13	1,15	204034
Lengths I Colour: Green-Yellow						
SR1F3	1.5-0.5	1	1,5	0,5	0,45	204011
	3.0-1.0	1	3	1	0,55	204015
	6.0-2.0	1	6	2	0,65	204018
	9.0-3.0	1	9	3	0,75	204022
	12.0-4.0	1	12	4	0,75	204026
	18.0-6.0	1	18	6	0,75	204029
	24.0-8.0	1	24	8	1,00	204032
	39.0-13.0	1	39	13	1,15	204035

HEAT SHRINK TECHNOLOGY



Heat shrinkable tubes

→ Continuation

SR1F3
Heat shrinkable thin wall tube

Technical data	Value	Test standard
Physical properties		
Elongation at break	300 %	ASTM D 638
Tensile strength at break	13 MPa	ASTM D 638
Longitudinal shrinkage	≤ 10 %	ASTM D 2671
Shrink ratio	3:1	IEC 811-1-1
Thermal properties		
Operating temperature range	-55 °C up to 135 °C	IEC 216
Shrinkage temperature	› 90 °C	CPT Test
Burning behaviour	self-extinguishing	UL 224
Flexibility at low temperatures	-55 °C	ASTM-D 2671 C
Electrical properties		
Dielectric strength	20 kV/mm	ASTM D 2671
Specific volume resistivity	10^{14} Ω x cm	ASTM D 257
Chemical properties		
Corrosion	None	ASTM D 2671 B
Resistance to fungus and decay	No growth	AMS-DTL-7444

Heat shrinkable tubes



SB

Heat shrinkable tube in dispenser box

thin wall, self-extinguishing, shrink ratio 2 : 1, without adhesive

Characteristics
- Back-winding mechanism facilitates rolling up of tube
- User friendly, notch prevents tube from rolling back into the box

Note
- Self-extinguishing (except transparent)
- See „SR1F“ heat shrinkable tube for further information on product proper-ties and technical data

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Insulating
- Bundling
- Marking
- Corrosion protection
- Mechanical protection

Material
- Cross-linked polyolefin
- Free of lead and cadmium

Test standards
- Approved according to UL File No.: E 172094
- Corresponds to MIL-I-23053/5 class 1

Colours

Black, Blue, Yellow, Red, Green-Yellow, Brown, Green, White, Grey, Orange, Transparent

Scope of delivery
Thin wall heat shrinkable tube in dispenser box

Note: A standard spool may include sections which have been tied together.

Type		L m	Inner-Ø inch before shrinking	Inner-Ø mm before shrinking	Inner-Ø mm after shrinking	Recovered wall thickness mm	Art.-No.
Colour: Black							
SB	1.2-0.6	15	3/64	1.2	0.6	0.41	127020
	1.6-0.8	15	1/16	1.6	0.8	0.43	127027
	2.4-1.2	15	3/32	2.4	1.2	0.51	127034
	3.2-1.6	15	1/8	3.2	1.6	0.51	127041
	4.8-2.4	10	3/16	4.8	2.4	0.51	127049
	6.4-3.2	10	1/4	6.4	3.2	0.64	127057
	9.5-4.8	10	3/8	9.5	4.8	0.64	127065
	12.7-6.4	8	1/2	12.7	6.4	0.64	127073
	19.1-9.5	7	3/4	19.1	9.5	0.76	127081
	25.4-12.7	4	1	25.4	12.7	0.89	127089
Colour: Blue							
SB	3.2-1.6	15	1/8	3.2	1.6	0.51	127044
	4.8-2.4	10	3/16	4.8	2.4	0.51	127052
	6.4-3.2	10	1/4	6.4	3.2	0.64	127060
	9.5-4.8	10	3/8	9.5	4.8	0.64	127068
	12.7-6.4	8	1/2	12.7	6.4	0.64	127076
	19.1-9.5	7	3/4	19.1	9.5	0.76	127084
	25.4-12.7	4	1	25.4	12.7	0.89	127092
Colour: Yellow							
SB	3.2-1.6	15	1/8	3.2	1.6	0.51	127045
	4.8-2.4	10	3/16	4.8	2.4	0.51	127053
	6.4-3.2	10	1/4	6.4	3.2	0.64	127061
	9.5-4.8	10	3/8	9.5	4.8	0.64	127069
	12.7-6.4	8	1/2	12.7	6.4	0.64	127077
	19.1-9.5	7	3/4	19.1	9.5	0.76	127085
	25.4-12.7	4	1	25.4	12.7	0.89	127093
Colour: Red							
SB	3.2-1.6	15	1/8	3.2	1.6	0.51	127046
	4.8-2.4	10	3/16	4.8	2.4	0.51	127054
	6.4-3.2	10	1/4	6.4	3.2	0.64	127062
	9.5-4.8	10	3/8	9.5	4.8	0.64	127070
	12.7-6.4	8	1/2	12.7	6.4	0.64	127078

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HEAT SHRINK TECHNOLOGY

Heat shrinkable tubes

Type		L m	Inner-Ø inch before shrinking	Inner-Ø mm before shrinking	Inner-Ø mm after shrinking	Recovered wall thickness mm	Art.-No.
(Fortsetzung) Farbe: Rot							
SB	19.1-9.5	7	3/4	19,1	9,5	0,76	127086
	25.4-12.7	4	1	25,4	12,7	0,89	127094
Farbe: Weiß							
SB	3.2-1.6	15	1/8	3,2	1,6	0,51	127047
	4.8-2.4	10	3/16	4,8	2,4	0,51	127055
	6.4-3.2	10	1/4	6,4	3,2	0,64	127063
	9.5-4.8	10	3/8	9,5	4,8	0,64	127071
	12.7-6.4	8	1/2	12,7	6,4	0,64	127079
	19.1-9.5	7	3/4	19,1	9,5	0,76	127087
	25.4-12.7	4	1	25,4	12,7	0,89	127095
Farbe: Transparent							
SB	1.2-0.6	15	3/64	1,2	0,6	0,41	127021
	3.2-1.6	15	1/8	3,2	1,6	0,51	127043
	4.8-2.4	10	3/16	4,8	2,4	0,51	127051
	6.4-3.2	10	1/4	6,4	3,2	0,64	127059
	9.5-4.8	10	3/8	9,5	4,8	0,64	127067
	12.7-6.4	8	1/2	12,7	6,4	0,64	127075
	19.1-9.5	7	3/4	19,1	9,5	0,76	127083
	25.4-12.7	4	1	25,4	12,7	0,89	127091
Farbe: Grün							
SB	3.2-1.6	15	1/8	3,2	1,6	0,51	127048
	4.8-2.4	10	3/16	4,8	2,4	0,51	127056
	6.4-3.2	10	1/4	6,4	3,2	0,64	127064
	9.5-4.8	10	3/8	9,5	4,8	0,64	127072
	12.7-6.4	8	1/2	12,7	6,4	0,64	127080
	19.1-9.5	7	3/4	19,1	9,5	0,76	127088
	25.4-12.7	4	1	25,4	12,7	0,89	127096
Farbe: Grau							
SB	3.2-1.6	15	1/8	3,2	1,6	0,51	144429
	4.8-2.4	10	3/16	4,8	2,4	0,51	144433
	6.4-3.2	10	1/4	6,4	3,2	0,64	144438
	9.5-4.8	10	3/8	9,5	4,8	0,64	144444
	12.7-6.4	8	1/2	12,7	6,4	0,64	144449
	19.1-9.5	7	3/4	19,1	9,5	0,76	144455
	25.4-12.7	4	1	25,4	12,7	0,89	144460
Farbe: Braun							
SB	3.2-1.6	15	1/8	3,2	1,6	0,51	144430
	4.8-2.4	10	3/16	4,8	2,4	0,51	144434
	6.4-3.2	10	1/4	6,4	3,2	0,64	144439
	9.5-4.8	10	3/8	9,5	4,8	0,64	144445
	12.7-6.4	8	1/2	12,7	6,4	0,64	144450
	19.1-9.5	7	3/4	19,1	9,5	0,76	144456
	25.4-12.7	4	1	25,4	12,7	0,89	144461
Farbe: Orange							
SB	3.2-1.6	15	1/8	3,2	1,6	0,51	144426
	4.8-2.4	10	3/16	4,8	2,4	0,51	144431
	9.5-4.8	10	3/8	9,5	4,8	0,64	144440
	12.7-6.4	8	1/2	12,7	6,4	0,64	144446
	19.1-9.5	7	3/4	19,1	9,5	0,76	144451
	25.4-12.7	4	1	25,4	12,7	0,89	144457
Farbe: Grün-Gelb							
SB	3.2-1.6	15	1/8	3,2	1,6	0,51	127042
	4.8-2.4	10	3/16	4,8	2,4	0,51	127050
	6.4-3.2	10	1/4	6,4	3,2	0,64	127058
	9.5-4.8	10	3/8	9,5	4,8	0,64	127066
	12.7-6.4	8	1/2	12,7	6,4	0,64	127074
	19.1-9.5	7	3/4	19,1	9,5	0,76	127082
	25.4-12.7	4	1	25,4	12,7	0,89	127090

Heat shrinkable tubes



SB

Heat shrinkable tube in dispenser box

thin wall, self-extinguishing, shrink ratio 3 : 1, without adhesive

Characteristics
- Back-winding mechanism facilitates rolling up of tube
- User friendly, notch prevents tube from rolling back into the box
- Self-extinguishing (except transparent)

Note
- See „SR1F3" heat shrinkable tube for further information on product proper-ties and technical data

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Insulating
- Bundling
- Marking
- Corrosion protection
- Mechanical protection

Material
- Cross-linked polyolefin
- Free of lead and cadmium

Test standards
- Approved according to UL File No.: E 172094
- Corresponds to MIL-I-23053/5 class 1

Colours

Black, Blue, White, Yellow, Green-Yellow, Brown, Grey, Green, Red, Transparent

Scope of delivery
Thin wall heat shrinkable tube in dispenser box

Note: A standard spool may include sections which have been tied together.

Type		L m	Inner-Ø mm		Recovered wall thickness mm	Art.-No.
			before shrinking	after shrinking		
Colour: Black						
SB	1.5-0.5	15	1.5	0.5	0.45	127097
	3.0-1.0	15	3	1	0.55	127104
	6.0-2.0	10	6	2	0.65	127111
	9.0-3.0	10	9	3	0.75	127118
	12.0-4.0	8	12	4	0.75	127125
	18.0-6.0	7	18	6	0.75	127132
	24.0-8.0	4	24	8	1.00	127139
Colour: Blue						
SB	1.5-0.5	15	1.5	0.5	0.45	127099
	3.0-1.0	15	3	1	0.55	127106
	6.0-2.0	10	6	2	0.65	127113
	9.0-3.0	10	9	3	0.75	127120
	12.0-4.0	8	12	4	0.75	127127
	18.0-6.0	7	18	6	0.75	127134
	24.0-8.0	4	24	8	1.00	127141
Colour: Yellow						
SB	1.5-0.5	15	1.5	0.5	0.45	127100
	3.0-1.0	15	3	1	0.55	127107
	6.0-2.0	10	6	2	0.65	127114
	9.0-3.0	10	9	3	0.75	127121
	12.0-4.0	8	12	4	0.75	127128
	18.0-6.0	7	18	6	0.75	127135
	24.0-8.0	4	24	8	1.00	127142
Colour: Red						
SB	1.5-0.5	15	1.5	0.5	0.45	127101
	3.0-1.0	15	3	1	0.55	127108
	6.0-2.0	10	6	2	0.65	127115
	9.0-3.0	10	9	3	0.75	127122
	12.0-4.0	8	12	4	0.75	127129
	18.0-6.0	7	18	6	0.75	127136
	24.0-8.0	4	24	8	1.00	127143

→ Continued on the next page

HEAT SHRINK TECHNOLOGY

Heat shrinkable tubes

Type		L m	Inner-Ø mm		Recovered wall thickness mm	Art.-No.
			before shrinking	after shrinking		
Colour: White						
SB	1.5-0.5	15	1.5	0.5	0.45	127102
	3.0-1.0	15	3	1	0.55	127109
	6.0-2.0	10	6	2	0.65	127116
	9.0-3.0	10	9	3	0.75	127123
	12.0-4.0	8	12	4	0.75	127130
	18.0-6.0	7	18	6	0.75	127137
	24.0-8.0	4	24	8	1.00	127144
Colour: Transparent						
SB	1.5-0.5	15	1.5	0.5	0.45	127098
	3.0-1.0	15	3	1	0.55	144462
	6.0-2.0	10	6	2	0.65	127112
	9.0-3.0	10	9	3	0.75	127119
	12.0-4.0	8	12	4	0.75	127126
	18.0-6.0	7	18	6	0.75	127133
	24.0-8.0	4	24	8	1.00	127140
Farbe: Grün						
SB	1.5-0.5	15	1,5	0,5	0,45	200294
	3.0-1.0	15	3	1	0,55	127110
	6.0-2.0	10	6	2	0,65	127117
	9.0-3.0	10	9	3	0,75	200295
	12.0-4.0	8	12	4	0,75	127131
	24.0-8.0	4	24	8	1,00	127145
Colour: Grey						
SB	1.5-0.5	15	1.5	0.5	0.45	203674
	3.0-1.0	15	3	1	0.55	203675
	6.0-2.0	10	6	2	0.65	203676
	9.0-3.0	10	9	3	0.75	203677
	12.0-4.0	8	12	4	0.75	203678
	18.0-6.0	7	18	6	0.75	203679
	24.0-8.0	4	24	8	1.00	203680
Colour: Brown						
SB	3.0-1.0	15	3	1	0.55	203787
	6.0-2.0	10	6	2	0.65	203788
	9.0-3.0	10	9	3	0.75	203789
	12.0-4.0	8	12	4	0.75	203790
	18.0-6.0	7	18	6	0.75	203791
	24.0-8.0	4	24	8	1.00	203792
Colour: Green-Yellow						
SB	1.5-0.5	15	1.5	0.5	0.45	204297
	3.0-1.0	15	3	1	0.55	204298
	6.0-2.0	10	6	2	0.65	204299
	9.0-3.0	10	9	3	0.75	204310
	12.0-4.0	8	12	4	0.75	204311
	18.0-6.0	7	18	6	0.75	204312
	24.0-8.0	4	24	8	1.00	204313

Heat shrinkable tubes



MBS1
Assortment box
with thin wall heat shrinkable tubes and cable ties

Characteristics
- Practice-oriented product assortment

Note
- See „SR1F“ and „SRC1“ heat shrinkable tubes and „KS“ cable ties for further information on product properties and technical data

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- For marking and insulation of cables and conductors
- Corrosion protection
- Mechanical protection

Test standards
- Approved according to UL File No.: E 172094
- Corresponds to MIL-I-23053/5 class 1

Scope of delivery
Assortment box, cable ties, heat shrinkable tubes in various dimensions, lengths and colours

Heat shrinkable tubes				
SR1F	1.6-0.8	Red	30 mm	50 pieces
	2.4-1.2	Red	50 mm	10 pieces
	3.2-1.6	Yellow	30 mm	30 pieces
	3.2-1.6	Transparent	50 mm	40 pieces
	4.8-2.4	Yellow	100 mm	10 pieces
	4.8-2.4	Transparent	100 mm	10 pieces
	4.8-2.4	Blue	50 mm	25 pieces
	4.8-2.4	Red	50 mm	25 pieces
	6.4-3.2	Red	100 mm	10 pieces
	6.4-3.2	Blue	100 mm	10 pieces
	6.4-3.2	White	50 mm	10 pieces
	6.4-3.2	Transparent	50 mm	10 pieces
SRC1	2.4-1.2	Black	50 mm	30 pieces
	9.5-4.8	Black	50 mm	10 pieces
	12.7-6.4	Black	100 mm	5 pieces
	12.7-6.4	Black	150 mm	5 pieces
	19.1-9.5	Black	100 mm	5 pieces
	19.1-9.5	Black	200 mm	5 pieces
	25.4-12.7	Black	250 mm	3 pieces
Cable ties				
KS	3.6-140	Black	140 mm	100 pieces

Type	Art.-No.
MBS1	144420

HEAT SHRINK TECHNOLOGY

Heat shrinkable tubes



MMK
Mini joint case
with medium wall heat shrinkable tubes and heat shrinkable crimp connectors, for joints up to 2.5 mm²

Characteristics
- Practical multi-purpose case with adjustable compartments, containing heat shrinkable tubes and heat shrink-able crimp connectors

Note
- See „SRUM“ heat shrinkable tube and „DR“ heat shrinkable crimp connectors for further information on product properties and technical data

Application/Suitability
- Fast-assembly kit for up to 16 straight- through joints ranging between 0.5 and 2.5 mm²

Scope of delivery
Multi-purpose case, heat shrinkable tubes and heat shrinkable crimp connectors in various dimensions, lengths and colours

Heat shrinkable tubes				
SRUM	18-6	Black	160 mm	10 pieces
	24-8	Black	160 mm	6 pieces
Heat shrinkable crimp connectors				
DR	1	Red		20 pieces
	2	Blue		30 pieces

Type	Art.-No.
MMK	193442

Heat shrinkable tubes



SRUM
Heat shrinkable medium wall tube
self-extinguishing, flexible, shrink ratio 3 : 1 or 4 : 1, with adhesive

Characteristics
- Medium wall
- Inscribable
- Resistant to chemical agents
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Non-corrosive
- Infusible
- High flexibility
- Superior electrical properties
- High tensile strength
- Resistant to cold flow (thermally stable)
- Self-extinguishing

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Insulating
- Bundling
- Corrosion protection
- Mechanical protection

Material
- Cross-linked polyolefin
- Free of lead and cadmium

Test standards
- Corresponds to MIL-I-23053/4

Colours

Black

Scope of delivery
Medium wall heat shrinkable tube, on spool or in lengths

Note: A standard spool may include sections which have been tied together. Other lengths available on request.

Type		L m	Inner-Ø mm before shrinking	Inner-Ø mm after shrinking	Recovered wall thickness mm	Art.-No.
Shrink ratio 3:1						
Spool I Colour: Black						
SRUM	3-1	300	3	1	1.4	127471
	6-2	300	6	2	1.7	127472
	9-3	150	9	3	1.9	127473
	12-4	100	12	4	2.3	127474
	18-6	50	18	6	2.7	127475
	24-8	50	24	8	3.1	127476
	39-13	30	39	13	3.1	127477
Lengths I Colour: Black						
SRUM	3-1	1	3	1	1.4	148840
	6-2	1	6	2	1.7	149433
	9-3	1	9	3	1.9	152008
	12-4	1	12	4	2.3	148842
	18-6	1	18	6	2.7	150148
	24-8	1	24	8	3.1	150278
	39-13	1	39	13	3.1	150149
Shrink ratio 4:1						
Spool I Colour: Black						
SRUM	4-1	300	4	1	1,4	145064
	8-2	150	8	2	1.7	145065
	16-4	100	16	4	2.3	145069
	24-6	50	24	6	2.7	145071
	32-8	30	32	8	3.1	145073
	52-13	30	52	13	3.1	145075
Lengths I Colour: Black						
SRUM	4-1	1	4	1	1.4	240160
	8-2	1	8	2	1.7	240163
	16-4	1	16	4	2.3	240167
	24-6	1	24	6	2.7	240168
	32-8	1	32	8	3.1	240170
	52-13	1	52	13	3.1	155962

→ Continued on the next page

HEAT SHRINK TECHNOLOGY

Heat shrinkable tubes

→ Continuation

SRUM
Heat shrinkable medium wall tube

Technical data	Value	Test standard
Physical properties		
Elongation at break	300 %	ASTM D 638
Tensile strength at break	11 MPa	ASTM D 638
Longitudinal shrinkage	≤ 15 %	ASTM D 2671
Thermal properties		
Operating temperature range	-55 °C up to 110 °C	IEC 216
Shrinkage temperature	› 110 °C	
Burning behaviour	self-extinguishing	UL 224
Flexibility at low temperatures	-55 °C up to + 110 °C	ASTM-D 2671 C
Electrical properties		
Dielectric strength	15 kV/mm	ASTM D 2671
Specific volume resistivity	10^{14} Ω x cm	ASTM D 257
Chemical properties		
Corrosion	None	ASTM D 2671 B
Resistance to fungus and decay	No growth	AMS-DTL-7444

Heat shrinkable tubes



SR2, SRH2
Heat shrinkable medium wall tube
halogen-free, shrink ratio 3 : 1, with or without adhesive

Characteristics
- Medium wall
- Inscribable
- Resistant to chemical agents
- Stabilized against UV rays (Colour: Black)
- Free from paint-wetting inhibiting substances
- Halogen-free
- Non-corrosive
- Infusible
- Superior electrical properties
- High tensile strength
- Resistant to cold flow (thermally stable)

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Insulating
- Protection against moisture and pressure
- Suitable for heat shrinkable joints and terminations

Material
- Cross-linked polyolefin
- Free of lead and cadmium

Test standards
- Corresponds to IEC 60684-2

Colours

Black, Green-Yellow

Scope of delivery
Medium wall heat shrinkable tube, on spool or in lengths

Note: A standard spool may include sections which have been tied together. Other lengths available on request.

Type		L m	Inner-Ø mm before shrinking	Inner-Ø mm after shrinking	Recovered wall thickness mm	Art.-No.
without adhesive						
Spool I Colour: Black						
SR2	12-3	30	12	3	2.2	143759
	22-6	30	22	6	2.6	143764
	34-7	30	34	7	2.6	143766
	40-12	30	40	12	2.6	143770
	56-16	30	56	16	2.7	143803
Spool I Colour: Green-Yellow						
SR2	12-4	5	12	4	1.5	127383
	12-4	25	12	4	1.5	127384
	27-9	5	27	9	1.5	127386
	27-9	25	27	9	1.5	127387
Lengths I Colour: Black						
SR2	12-3	1	12	3	2.2	127391
	22-6	1	22	6	2.6	127394
	34-7	1	34	7	2.6	127397
	40-12	1	40	12	2.6	127400
	56-16	1	56	16	2.7	127403
	63-19	1	63	19	2.8	143818
	75-22	1	75	22	3	127406
	95-26	1	95	26	3.2	127407
	120-34	1	120	34	3.3	127408
	140-42	1	140	42	3.5	143806
	160-50	1	160	50	3.5	143811

→ Continued on the next page

HEAT SHRINK TECHNOLOGY

Heat shrinkable tubes

Type		L m	Inner-Ø mm before shrinking	Inner-Ø mm after shrinking	Recovered wall thickness mm	Art.-No.
with adhesive						
Lengths I Colour: Black						
SRH2	8-2	1	8	2	1.7	127416
	12-3	1	12	3	2.2	127417
	22-6	1	22	6	2.6	127418
	34-7	1	34	7	2.6	127421
	40-12	1	40	12	2.6	127423
	56-16	1	56	16	2.7	127425
	63-19	1	63	19	2.8	135859
	75-22	1	75	22	3	127427
	95-26	1	95	26	3.2	127429
	120-34	1	120	34	3.3	127431
	140-42	1	140	42	3.5	144013
	160-50	1	160	50	3.5	144018

→ Continuation

SR2, SRH2
Heat shrinkable medium wall tube

Technical data	Value	Test standard
Physical properties		
Hardness	55 Shore D	DIN 53 505
Elongation at break	350 %	IEC 60684-2
Tensile strength at break	13 MPa	IEC 60684-2
Longitudinal shrinkage	≤ 10 %	IEC 60684-2
Shrink ratio	3:1	IEC 60684-2
Eccentricity expanded recovered	 50 % 85 %	 IEC 60684-2
Thermal properties		
Operating temperature range	-40 °C up to 120 °C	IEC 60684-2
Shrinkage temperature	› 125 °C	
Burning behaviour	not self-extinguishing	IEC 60684-2 method C
Flexibility at low temperatures	-40 °C	IEC 60684-2
Thermal ageing (168 h at 150 °C) Elongation at break Tensile strength at break	 250 % 12 MPa	 IEC 60684-2
Electrical properties		
Dielectric strength	25 kV/mm	IEC 60684-2
Specific volume resistivity	10^{14} Ω x cm	IEC 60684-2
Chemical properties		
Corrosion	None	IEC 60684-2
Resistance to fungus and decay	Rate 1	IEC 60684-2

Heat shrinkable tubes



SRFH2
Heat shrinkable medium wall tube
self-extinguishing, shrink ratio 3 : 1, with adhesive

Characteristics
- Medium wall
- Inscribable
- Resistant to chemical agents
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Non-corrosive
- Infusible
- Superior electrical properties
- High tensile strength
- Resistant to cold flow (thermally stable)
- Self-extinguishing

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Insulating
- Protection against moisture and pressure
- Suitable for heat shrinkable joints and terminations

Material
- Cross-linked polyolefin
- Free of lead and cadmium

Test standards
- Corresponds to IEC 60684-2

Colours

Black

Scope of delivery
Medium wall heat shrinkable tube in lengths

Note: Other lengths available on request.

Type		L m	Inner-Ø mm before shrinking	Inner-Ø mm after shrinking	Recovered wall thickness mm	Art.-No.
Lengths l Colour: Black						
SRFH2	12-4	1	12	4	2.6	144493
	21-7	1	21	7	2.6	144498

Technical data	Value	Test standard
Physical properties		
Hardness	51 Shore D	DIN 53 505
Elongation at break	350 %	IEC 60684-2
Tensile strength at break	13 MPa	IEC 60684-2
Longitudinal shrinkage	≤ 10 %	IEC 60684-2
Shrink ratio	3:1	IEC 60684-2
Eccentricity		
expanded	50 %	
recovered	85 %	IEC 60684-2
Thermal properties		
Operating temperature range	-40 °C up to 120 °C	IEC 60684-2
Shrinkage temperature	› 125 °C	
Burning behaviour	self-extinguishing	IEC 60684-2 method C
Flexibility at low temperatures	-40 °C	IEC 60684-2
Thermal ageing (168 h at 150 °C)		
Elongation at break	250 %	
Tensile strength at break	12 MPa	IEC 60684-2
Electrical properties		
Dielectric strength	25 kV/mm	IEC 60684-2
Specific volume resistivity	10^{14} Ω x cm	IEC 60684-2
Chemical properties		
Corrosion	None	IEC 60684-2
Resistance to fungus and decay	Rate 1	IEC 60684-2

HEAT SHRINK TECHNOLOGY

Heat shrinkable tubes



SR3, SRH3
Heat shrinkable thick wall tube
halogen-free, shrink ratio 3 : 1, with or without adhesive

Characteristics
- Thick wall
- Inscribable
- Resistant to chemical agents
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- Non-corrosive
- Infusible
- Superior electrical properties
- High tensile strength
- Resistant to cold flow (thermally stable)

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Insulating
- Protection against moisture and pressure
- Suitable for heat shrinkable joints and terminations

Material
- Cross-linked polyolefin
- Free of lead and cadmium

Test standards
- Corresponds to IEC 60684-2

Colours

Black

Scope of delivery
Thick wall heat shrinkable tube in lengths

Note: Other lengths available on request.

Type		L m	Inner-Ø mm before shrinking	Inner-Ø mm after shrinking	Recovered wall thickness mm	Art.-No.
without adhesive						
Lengths l Colour: Black						
SR3	22-6	1	22	6	2.7	127488
	33-8	1	33	8	4	144613
	45-12	1	45	12	4.4	127490
	55-15	1	55	15	4.4	144620
	75-20	1	75	20	4.5	144596
	92-25	1	92	25	4.7	127493
with adhesive						
Lengths l Colour: Black						
SRH3	12-3	1	12	3	2,6	127503
	16-4	1	16	4	2,8	135860
	22-5	1	22	5	2,9	443960
	33-8	1	33	8	4	127507
	48-12	1	45	12	4,5	443980
	63-15	1	48	15	4,5	444005
	75-20	1	63	20	4,4	127522
	92-25	1	92	25	4,6	127515
	130-34	1	130	34	4,8	144863
	160-50	1	160	50	4,8	158903

→ Continued on the next page

Heat shrinkable tubes

→ Continuation

SR3, SRH3

Heat shrinkable thick wall tube

Technical data	Value	Test standard
Physical properties		
Hardness	55 Shore D	DIN 53 505
Elongation at break	350 %	IEC 60684-2
Tensile strength at break	13 MPa	IEC 60684-2
Longitudinal shrinkage	≤ 10 %	IEC 60684-2
Shrink ratio	3:1	IEC 60684-2
Eccentricity expanded recovered	 50 % 85 %	 IEC 60684-2
Thermal properties		
Operating temperature range	-40 °C up to 120 °C	IEC 60684-2
Shrinkage temperature	> 125 °C	
Burning behaviour	not self-extinguishing	IEC 60684-2 method C
Flexibility at low temperatures	-40 °C	IEC 60684-2
Thermal ageing (168 h at 150 °C) Elongation at break Tensile strength at break	 250 % 12 MPa	 IEC 60684-2
Electrical properties		
Dielectric strength	25 kV/mm	IEC 60684-2
Specific volume resistivity	10^{14} Ω x cm	IEC 60684-2
Chemical properties		
Corrosion	None	IEC 60684-2
Resistance to fungus and decay	Rate 1	IEC 60684-2

HEAT SHRINK TECHNOLOGY

Heat shrinkable tubes



SRFH3

Heat shrinkable thick wall tube

self-extinguishing, shrink ratio 3 : 1, with adhesive

Characteristics
- Thick wall
- Inscribable
- Resistant to chemical agents
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Non-corrosive
- Infusible
- Superior electrical properties
- High tensile strength
- Resistant to cold flow (thermally stable)
- Self-extinguishing

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Insulating
- Protection against moisture and pressure
- Suitable for heat shrinkable joints and terminations

Material
- Cross-linked polyolefin
- Free of lead and cadmium

Test standards
- Corresponds to IEC 60684-2

Colours

Black

Scope of delivery
Thick wall heat shrinkable tube in lengths

Note: Other lengths available on request.

Type	L m	Inner-Ø mm		Recovered wall thickness mm	Art.-No.
		before shrinking	after shrinking		
Lengths I Colour: Black					
SRFH3	30-8	1	30	8	3.5	144527
	40-13	1	40	13	3.5	144536
	55-18	1	55	18	3.8	144545
	80-26	1	80	26	3.8	144559

Technical data	Value	Test standard
Physical properties		
Hardness	51 Shore D	DIN 53 505
Elongation at break	350 %	IEC 60684-2
Tensile strength at break	13 MPa	IEC 60684-2
Longitudinal shrinkage	≤ 10 %	IEC 60684-2
Shrink ratio	3:1	IEC 60684-2
Eccentricity expanded recovered	 50 % 85 %	 IEC 60684-2
Thermal properties		
Operating temperature range	-40 °C up to 120 °C	IEC 60684-2
Shrinkage temperature	> 125 °C	
Burning behaviour	self-extinguishing	IEC 60684-2 method C
Flexibility at low temperatures	-40 °C	IEC 60684-2
Thermal ageing (168 h at 150 °C) Elongation at break Tensile strength at break	 250 % 12 MPa	 IEC 60684-2
Electrical properties		
Dielectric strength	25 kV/mm	IEC 60684-2
Specific volume resistivity	10^{14} Ω x cm	IEC 60684-2
Chemical properties		
Corrosion	None	IEC 60684-2
Resistance to fungus and decay	Rate 1	IEC 60684-2

Heat shrinkable tubes



SRBK-Set
Heat shrinkable thick wall tube
anti-slip, halogen-free, shrink ratio 3 : 1, with adhesive

Protection and mechanical connection of telecommunication cable plug-in systems.

Characteristics
- Thick wall
- Resistant to chemical agents
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- Non-corrosive
- Infusible
- Superior electrical properties
- Excellent adhesion to all cable materials
- High tensile strength
- Resistant to cold flow (thermally stable)

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Telecommunications terminal block system

Material
- Cross-linked polyolefin
- Free of lead and cadmium

Test standards
- Corresponds to IEC 60684-2

Colours

Black

Scope of delivery
10 thick wall heat shrinkable tubes in lengths, 20 fire protection wrapping, 10 cleaning tissues, 10 emery cloths

Type		L mm	Inner-Ø mm before shrinking	Inner-Ø mm after shrinking	Recovered wall thickness mm	Art.-No.
SRBK-Set	25-7	170	25	7	3.1	146123
	32-8	210	32	8	3.2	146124

Technical data	Value	Test standard
Physical properties		
Hardness	50 Shore D	DIN 53 505
Elongation at break	350 %	IEC 60684-2
Tensile strength at break	13 MPa	IEC 60684-2
Longitudinal shrinkage	≤ 10 %	IEC 60684-2
Shrink ratio	3:1	IEC 60684-2
Eccentricity		
expanded	50 %	
recovered	85 %	IEC 60684-2
Thermal properties		
Operating temperature range	-40 °C up to 120 °C	IEC 60684-2
Shrinkage temperature	› 125 °C	
Burning behaviour	self-extinguishing	IEC 60684-2 method C
Flexibility at low temperatures	-40 °C	IEC 60684-2
Thermal ageing (168 h at 150 °C)		
Elongation at break	350 %	
Tensile strength at break	13 MPa	IEC 60684-2
Electrical properties		
Dielectric strength	20 kV/mm	IEC 60684-2
Specific volume resistivity	10^{14} Ω x cm	IEC 60684-2
Chemical properties		
Corrosion	None	IEC 60684-2
Resistance to fungus and decay	Rate 1	IEC 60684-2

HEAT SHRINK TECHNOLOGY

Moulded parts



SKH
Heat shrinkable end cap
with hot-melt adhesive

Protection against humidity and pressure for cables, conductors and pipes with a diameter of 5 - 105 mm.

Characteristics
- Compliant to REACH and RohS
- Stabilized against UV irradiation by carbon black content ≥ 2.5%
- Free from Silicones and other paint-wetting inhibiting substances
- Coated inside with high-quality hot-melt adhesive.
- Superior electrical properties
- High mechanical strength
- Resistant to chemical agents as defined in IEC 62677-2: Insulating oil mineral, Isopropylalcohol, deionized water

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Protection against moisture and pressure for cables, conductors and pipes

Note
- Length tolerance max. ±10 % in fully recovered condition

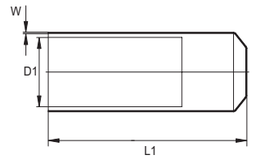
Material
- Cross-linked polyolefin

Test standards
- Based on: IEC 62677-3-101

Colours

Black

Dimensions



Scope of delivery
Heat shrinkable end cap

Type		L1 mm	L1* mm	Inner-Ø D1 mm before shrinking	Inner-Ø D1 mm after shrinking	W* Recovered wall thickness mm	Art.-No.
with adhesive							
SKH	10-4	46	45	10	4	2,9	125345
	15-5	47	43	15	5	2,2	125351
	22-9	76	65	22	9	2.8	125334
	35-15	111	103	35	15	3.2	125335
	55-25	165	155	55	25	3.5	125336
	75-30	181	148	75	30	4.4	125337
	95-40	215	183	95	40	3.8	125338
	100-45	176	156	100	45	4.1	368748

*recovered dimension after shrinking

Technical data	Value	Test standard
Physical properties		
Elongation at break	min. 300 %	EN 62677-2 or EN ISO 527-2
Tensile strength at break	min. 10 MPa	EN 62677-2 or EN ISO 527-2
Thermal properties		
Operating temperature range	-40 °C up to 100 °C	EN 62677-2
Shrinkage temperature	› 110 °C	
Burning behaviour	not self-extinguishing	
Flexibility at low temperatures	-40 °C	EN 62677-2
Thermal ageing (168 h at 150 °C)		
Elongation at break	min. 200 %	
Tensile strength at break	min. 8 MPa	EN 62677-2 or EN ISO 527-2
Electrical properties		
Dielectric strength	min. 10 kV/mm	EN 60243-1
Specific volume resistivity	min. 10^{13} Ω x cm	EN 62677-2



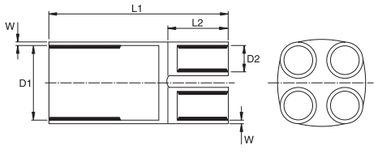
SEH
Heat shrinkable spreader cap
for 2-, 3-, 4-, 5-core cables and conductors, with hot-melt adhesive

Sealing spreader caps for plastic-, rubber- and paper-insulated cables.

Colours

Black

Dimensions



Characteristics
- Compliant to REACH and RoHS
- Stabilized against UV irradiation by carbon black content ≥ 2.5%
- Free from Silicones and other paint-wetting inhibiting substances
- Coated inside with high-quality hot-melt adhesive.
- Superior electrical properties
- High mechanical strength
- Resistant to chemical agents as defined in IEC 62677-2: Insulating oil mineral, Isopropylalcohol, deionized water

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Protection against moisture and pressure for cables, conductors and pipes

Note
- Length tolerance max. ±10 % in fully recovered condition

Material
- Cross-linked polyolefin

Test standards
- Based on: IEC 62677-3-101

Scope of delivery
Heat shrinkable spreader cap

Type		L1 mm	L1* mm	L2 mm	Inner-Ø D1 mm		Inner-Ø D2 mm		W* Recovered wall thickness mm	Nominal cross section mm²	Art.-No.
					before shrinking	after shrinking	before shrinking	after shrinking			
2-fingers spreader cap											
SEH2	30-10	67	89	17	30	10	16	3.7	3.1	2.5 - 25	125374
	50-24	86	120	24	50	24	21	7	3	25 - 120	169475
	60-20	103	130	33	60	20	45 / 32	18 / 6	3.5	95 - 150	125373
3-fingers spreader cap											
SEH3	25-9	52	70	16	25	9	9	3	2.5	1.5 - 16	169471
	35-15	87	100	22	35	15	13	4	2.5	6 - 35	125365
	55-23	134	170	33	55	23	24	7	3.9	35 - 150	169473
	75-28	175	212	36	75	28	35	12	4	120 - 300	186615
	110-35	182	218	45	110	35	51	17	4	185 - 400	169711
	125-59	208	268	51	125	59	67	27	4.4	240 - 500	125371
4-fingers spreader cap											
SEH4	28-9	57	72	16	28	9	8	3	2.5	1.5 - 10	148844
	35-15	81	100	22	35	15	14	4	3.9	6 - 35	143556
	47-23	134	169	36	47	23	20	7	4.1	35 - 95	166973
	60-25	155	177	32	60	25	25	6	3.9	35 - 150	169477
	78-36	172	220	43	78	36	30	12	3.8	95 - 240	166972
	95-36	172	221	50	95	36	35	14	3.9	120 - 300	143563
	150-55	190	245	47	150	55	57	22	4.2	240 - 500	302333
5-fingers spreader cap											
SEH5	35-15	80	100	21	35	15	20	4	2,5	4 - 35	486491
	65-15	84	108	22	65	15	20	4	4.4	4 - 70	222242
	80-33	160	179	49	80	33	27	8	3.4	35 - 150	223131
	100-42	170	198	52	100	42	34	10	3.6	95 - 240	223132

*recovered dimension after shrinking

→ Continued on the next page

HEAT SHRINK TECHNOLOGY

Moulded parts

→ Continuation

SEH
Heat shrinkable spreader cap

Technical data	Value	Test standard
Physical properties		
Elongation at break	min. 300 %	EN 62677-2 or EN ISO 527-2
Tensile strength at break	min. 10 MPa	EN 62677-2 or EN ISO 527-2
Thermal properties		
Operating temperature range	-40 °C up to 100 °C	EN EN 62677-2
Shrinkage temperature	› 110 °C	
Burning behaviour	not self-extinguishing	
Flexibility at low temperatures	-40 °C	EN 62677-2
Thermal ageing (168 h at 150 °C)		
Elongation at break	min. 200 %	
Tensile strength at break	min. 8 MPa	EN 62677-2 or EN ISO 527-2
Electrical properties		
Dielectric strength	min. 10 kV/mm	EN 60243-1
Specific volume resistivity	min. 10^{13} Ω x cm	EN 62677-2

Moulded parts



SRMAHV
Heat shrinkable repair sleeve
with adhesive and stainless steel channel

For repairing damaged sheaths of all polymeric- and rubber-insulated cables and conductors.

Characteristics
- Medium wall
- Resistant to chemical agents
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- Non-corrosive
- Infusible
- Maximum inner pressure: 1.5 bar
- Superior electrical properties
- High tensile strength
- Resistant to cold flow (thermally stable)

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Sealing
- Repair of damaged cable sheaths

Material
- Cross-linked polyolefin
- Free of lead and cadmium

Test standards
- Corresponds to IEC 60684-2

Colours

Black

Scope of delivery
Heat shrinkable repair sleeve, stainless steel channel, assembly instructions

Type		Inner-Ø mm		Application range mm		Recovered wall thickness mm	Art.-No.
		before shrinking	after shrinking	min. shrinking	max. shrinking		
SRMAHV	28-10 / 250	32	10	10	28	2.3	143595
	28-10 / 500	32	10	10	28	2.3	143601
	28-10 / 750	32	10	10	28	2.3	143605
	28-10 / 1000	32	10	10	28	2.3	143592
	43-12 / 250	52	12	12	43	3.4	165912
	43-12 / 500	52	12	12	43	3.4	166012
	43-12 / 750	52	12	12	43	3.4	166013
	43-12 / 1000	52	12	12	43	3.4	166016
	43-12 / 1500	52	12	12	43	3.4	143627
	72-18 / 250	82	18	18	72	3.4	143630
	72-18 / 500	82	18	18	72	3.4	143632
	72-18 / 750	82	18	18	72	3.4	143637
	72-18 / 1000	82	18	18	72	3.4	143628
	72-18 / 1500	82	18	18	72	3.4	143646
	72-18 / 2000	82	18	18	72	3.4	143629
	93-26 / 250	105	26	26	93	3.4	143649
	93-26 / 500	105	26	26	93	3.4	143650
	93-26 / 750	105	26	26	93	3.4	143654
	93-26 / 1000	105	26	26	93	3.4	143647
	93-26 / 2000	105	26	26	93	3.4	143648
	115-30 / 250	130	30	30	115	2.3	143661
	115-30 / 500	130	30	30	115	2.3	143663
	115-30 / 750	130	30	30	115	2.3	143665
	115-30 / 1000	130	30	30	115	2.3	143659
	115-30 / 1500	130	30	30	115	2.3	143669
	125-32 / 500	143	32	32	125	2.3	143672
	125-32 / 750	143	32	32	125	2.3	143673
	125-32 / 1000	143	32	32	125	2.3	143670
	125-32 / 1500	143	32	32	125	2.3	143679
	198-50 / 1000	220	50	50	198	2.3	143680

→ Continued on the next page

HEAT SHRINK TECHNOLOGY

Moulded parts

→ Continuation

SRMAHV
Heat shrinkable repair sleeve

Technical data	Value	Test standard
Physical properties		
Hardness	50 Shore D	IEC 60684-2
Elongation at break	300 %	IEC 60684-2
Tensile strength at break	13 MPa	IEC 60684-2
Longitudinal shrinkage	≤ 10 %	IEC 60684-2
Shrink ratio	> 3:1	IEC 60684-2
Thermal properties		
Operating temperature range	-40 °C up to 120 °C	IEC 60684-2
Shrinkage temperature	> 125 °C	
Flexibility at low temperatures	-40 °C	IEC 60684-2
Thermal ageing (168 h at 150 °C) Tensile strength at break	12 MPa	IEC 60684-2
Electrical properties		
Dielectric strength	12 kV/mm	IEC 60684-2
Specific volume resistivity	10^{15} Ω x cm	IEC 60684-2
Dielectric constant	5.0	IEC 60684-2
Chemical properties		
Corrosion	None	IEC 60684-2
Resistance to fungus and decay	Rate 1	IEC 60684-2

Overview: BBC Cellpack Cast resin straight-through and branch joints / Universal connection and branch boxes

Products	Version		Type of cast resins				
	with screw connector(s)	with branch clamp(s)	EG	GG	CG	FG	UWR
Straight-through joints							
MR 0	–	–	●	–	–	–	–
M...EG	–	–	●	–	–	–	–
M...GG	–	–	–	●	–	–	–
M-Euroline	–	–	●	–	–	–	–
M...V-Euroline	●	–	●	–	–	–	–
MZ	–	–	●	–	–	–	–
MZ...FG	–	–	–	–	–	●	–
PV...EG, PVM...EG, PVS...EG	–	–	●	–	–	–	–
PVS...GG	–	–	–	●	–	–	–
Branch joints							
KAV	–	–	●	–	–	–	–
H	–	–	●	–	–	–	–
H 5-SYS	–	●	–	–	–	–	●
P...EG	–	–	●	–	–	–	–
P...GG	–	–	–	●	–	–	–
T...EG	–	–	●	–	–	–	–
T...GG	–	–	–	●	–	–	–
T...V AK	–	●	●	–	–	–	–
Y...EG	–	–	●	–	–	–	–
Y...GG	–	–	–	●	–	–	–
Y...V AK	–	●	●	–	–	–	–
YCP	–	–	●	–	–	–	–
D1	–	–	●	–	–	–	–
Straight-through and branch joints							
M1	–	●	●	–	–	–	–
T1	–	●	●	–	–	–	–
Y1	–	●	●	–	–	–	–
Universal connection and branch boxes							
Universal Box CG	–	●	–	–	●	–	–

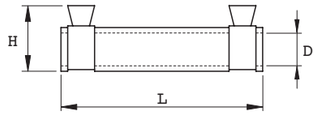
● included in the scope of delivery
– not included in the scope of delivery

CAST RESIN TECHNOLOGY

Straight-through joints



Dimensions



MR 0

Cast resin straight-through joint

particularly for small cross sections, for polymeric cables and conductors, control cables and signal cables

Universally suitable for connecting polymeric cables or conductors insulated with PVC, PE, XLPE and EPR (e.g. N(A)YY, NYM, TT). Suitable for compression connectors on copper and aluminium conductors.

Characteristics
- Compact dimensions
- Splice area visible before casting
- High-quality transparent shockproof plastic shell
- Funnel clips for easy casting
- Suitable for vertical casting
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Longitudinally and transversely watertight
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation
- Quick and easy assembly saves time and reduces costs

Storage conditions/Shelf life
- Cast resin up to 40 months

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Submersible pumps
- Installation ducts

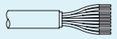
Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

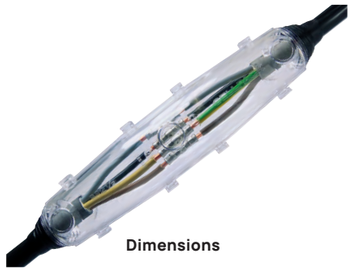
Scope of delivery
Cover, hydrolysis resistance PUR type EG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, transparent plastic shell, PVC insulation tape, protective gloves, funnel clips, assembly instructions

Optional accessory: Funnel set/Filling in funnel (on request)
Heat shrinkable crimp connector (see Connecting technology)
Cleaner UNIVERSAL CLEANER 121 (see Accessories)

						Polymeric cable unarmoured					
						1x	 2x	 3x	 4x	 5x	
Type		L mm	D mm	H mm	max. Cable-Ø mm	Nominal cross section per conductor mm²					Art.-No.
MR	02	120	26	40	16	25	6	4	2.5	1.5	124507
	05	180	26	40	16	25	6	4	4	2.5	124508

						Control and signal cable		
								
						0.75 mm²	1.5 mm²	
Type		L mm	D mm	H mm	max. Cable-Ø mm	Number of conductors		Art.-No.
MR	02	120	26	40	16	8	5	124507
	05	180	26	40	16	16	8	124508

Straight-through joints



M...EG
Cast resin straight-through joint
for polymeric cables and conductors, control cables and signal cables

Universally suitable for connecting polymeric cables or conductors insulated with PVC, PE, XLPE and EPR (e.g. N(A)YY, NYM, TT). Suitable for compression or screw connectors on copper and aluminium conductors.

Characteristics
- Compact dimensions
- Splice area visible before casting
- High-quality transparent shockproof plastic shell
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Longitudinally and transversely watertight
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation
- Quick and easy assembly saves time and reduces costs

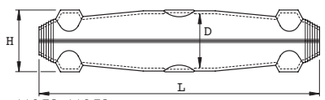
Storage conditions/Shelf life
- Cast resin up to 40 months

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

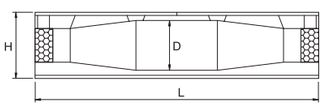
Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Dimensions



M 0 EG - M 6 EG



M 7 EG - M 8 EG

Scope of delivery
Hydrolysis resistance PUR type EG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, transparent plastic shell, fill and air-release funnels, PVC insulation tape, protective gloves, assembly instructions

Optional accessory: Shield continuity wire SVL (see Accessories)
Connectors (see Connecting technology)
Cleaner UNIVERSAL CLEANER 121 (see Accessories)

Note: Armour continuity kit for armoured cable available on request.

						Polymeric cable									
						unarmoured					with concentric conductor		armoured		
						1x	2x	3x	4x	5x	3x	4x	3x	4x	
Type		L mm	D mm	H mm	max. Cable-Ø mm	max. Nominal cross section per conductor mm²									Art.-No.
M	0 EG	185	32	37	15	25	10	6	6	4					124293
	1 EG	240	40	45	22	95	25	16	16	10	10/10				124294
	2 EG	265	45	50	30	185	50	35	25	16	25/25	16/16	16	16	124295
	2.5 EG	310	58	65	37	300	70	70	50	35	35/35	25/25	35	16 - 35	124296
	3 EG	355	70	80	42	400	120	95	70	50	50/50	50/25	50	35 - 50	124297
	4 EG	430	90	98	52	500		120	95	70	95/95	70/35	95	50 - 95	124298
	5 EG	550	110	120	62	1000		240	185	120	150/150	120/70	120	95 - 120	124299
	6 EG	660	145	165	80			300	240	185	240/240	240/120	240	120 - 240	124300
	7 EG	900	150	190	90			400	300	240					124308
	8 EG	1100	150	190	90						400/400	300/150	400	300 - 400	124309

						Control and signal cable					
						0,4 mm	0,6 mm	0,8 mm	0,75 mm²	1,5 mm²	
Type		L mm	D mm	H mm	max. Cable-Ø mm	Number of wire pairs			Number of conductors		Art.-No.
M	0 EG	185	32	37	15	6 - 20	6 - 10	6	16	8	124293
	1 EG	240	40	45	22	30 - 70	20 - 30	10 - 20	56	21	124294
	2 EG	265	45	50	30	100 - 150	40 - 70	30 - 40	114	56	124295
	2.5 EG	310	58	65	37	200 - 250	100 - 120	50 - 70	154	96	124296
	3 EG	355	70	80	42	300	150	100 - 120	200	133	124297

Shield continuity wire SVL required for telecommunication cables.

CAST RESIN TECHNOLOGY

Straight-through joints



M...GG
Cast resin straight-through joint
for polymeric cables and conductors, control cables and signal cables

Universally suitable for connecting polymeric cables or conductors insulated with PVC, PE, XLPE and EPR (e.g. N(A)YY, NYM, TT). Suitable for compression or screw connectors on copper and aluminium conductors.

Characteristics
- Compact dimensions
- Splice area visible before casting
- High-quality transparent shockproof plastic shell
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Longitudinally and transversely watertight
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation
- Quick and easy assembly saves time and reduces costs

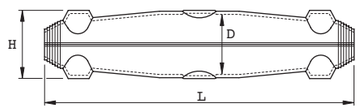
Storage conditions/Shelf life
- Cast resin up to 24 months

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Dimensions



M 0 GG - M 6 GG

Scope of delivery
Hydrolysis resistance PUR type GG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, transparent plastic shell, fill and air-release funnels, PVC insulation tape, protective gloves, assembly instructions

Optional accessory: Shield continuity wire SVL (see Accessories)
Connectors (see Connecting technology)
Cleaner UNIVERSAL CLEANER 121 (see Accessories)

Note: Armour continuity kit for armoured cable available on request.

						Polymeric cable									
						unarmoured					with concentric conductor		armoured		
						1x	2x	3x	4x	5x	3x	4x	3x	4x	
Type		L mm	D mm	H mm	max. Cable-Ø mm	max. Nominal cross section per conductor mm²									Art.-No.
M	0 GG	185	32	37	15	25	10	6	6	4					353703
	1 GG	240	40	45	22	95	25	16	16	10	10/10				353717
	2 GG	265	45	50	30	185	50	35	25	16	25/25	16/16	16	16	353718
	2.5 GG	310	58	65	37	300	70	70	50	35	35/35	25/25	35	16 - 35	353719
	3 GG	355	70	80	42	400	120	95	70	50	50/50	50/25	50	35 - 50	353740
	4 GG	430	90	98	52	500		120	95	70	95/95	70/35	95	50 - 95	353741
	5 GG	550	110	120	62	1000		240	185	120	150/150	120/70	120	95 - 120	353742
	6 GG	660	145	165	80			300	240	185	240/240	240/120	240	120 - 240	353743

						Control and signal cable					
						0,4 mm	0,6 mm	0,8 mm	0,75 mm²	1,5 mm²	
Type		L mm	D mm	H mm	max. Cable-Ø mm	Number of wire pairs			Number of conductors		Art.-No.
M	0 GG	185	32	37	15	6 - 20	6 - 10	6	16	8	353703
	1 GG	240	40	45	22	30 - 70	20 - 30	10 - 20	56	21	353717
	2 GG	265	45	50	30	100 - 150	40 - 70	30 - 40	114	56	353718
	2.5 GG	310	58	65	37	200 - 250	100 - 120	50 - 70	154	96	353719
	3 GG	355	70	80	42	300	150	100 - 120	200	133	353740

Shield continuity wire SVL required for telecommunication cables.

Straight-through joints



M-Euroline

Cast resin straight-through joint

for polymeric cables and conductors

Universally suitable for connecting polymeric cables or conductors insulated with PVC, PE, XLPE and EPR (e.g. N(A)YY, NYM, TT). Suitable for compression or screw connectors on copper and aluminium conductors.

Characteristics
- Compact dimensions
- Splice area visible before casting
- High-quality transparent shockproof plastic shell
- Large filler aperture to facilitate casting
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Longitudinally and transversely watertight
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation
- Quick and easy assembly saves time and reduces costs

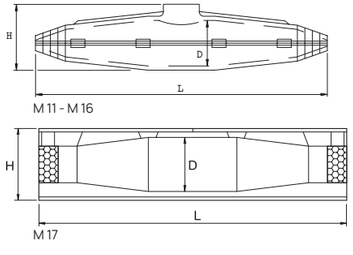
Storage conditions/Shelf life
- Cast resin up to 40 months

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Dimensions



Scope of delivery
Cover, hydrolysis resistance PUR type EG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, transparent plastic shell, spacers (up to M13), PVC insulation tape, protective gloves, assembly instructions

Optional accessory: Connectors (see Connecting technology)
Cleaner UNIVERSAL CLEANER 121 (see Accessories)
Note: Armour continuity kit for armoured cable available on request.

						Polymeric cable							
						unarmoured				with concentric conductor		armoured	
						1x	3x	4x	5x	3x	4x	4x	
Type		L mm	D mm	H mm	max. Cable-Ø mm	max. Nominal cross section per conductor mm²							Art.-No.
M	11	190	36	50	26	50	10	10	6	10/10		4	124169
	12	260	47	63	34	150	25	25	16	25/25	16/16	10	124170
	13 S	310	55	68	43	240	35	35	25	35/35	25/16	25	124171
	13	360	55	75	43	400	50	50	35	50/50	25/16	35	124172
	14 S	350	70	95	48	630	70	70	50	70/70	50/50	50	124173
	14	400	70	95	48	630	95	95	70	95/95	50/50	70	124174
	15	530	100	120	63	1000	150	150	120	150/150	120/70	120	124175
	16	700	125	160	81		240	240	185	240/120	185/70	240	124176
	17	900	150	190	90		300	400	240	300/300	240/120	240	169406

CAST RESIN TECHNOLOGY

Straight-through joints



M...V-Euroline

Cast resin straight-through joint

with screw connectors, for polymeric cables and conductors

Universally suitable for connecting polymeric cables or conductors insulated with PVC, PE, XLPE and EPR (e.g. N(A)YY, NYM, TT). With screw connectors, suitable for aluminium or copper conductors.

Characteristics
- Compact dimensions
- Splice area visible before casting
- High-quality transparent shockproof plastic shell
- Large filler aperture to facilitate casting
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Longitudinally and transversely watertight
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation
- Quick and easy assembly saves time and reduces costs

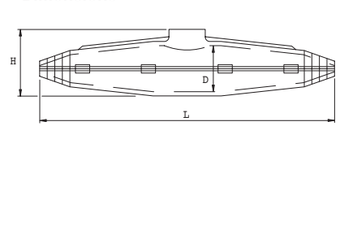
Storage conditions/Shelf life
- Cast resin up to 40 months

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Dimensions



Scope of delivery
Cover, hydrolysis resistance PUR type EG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, transparent plastic shell, screw connectors, spacers, PVC insulation tape, protective gloves, assembly instructions

Optional accessory: Cleaner UNIVERSAL CLEANER 121 (see Accessories)

						Polymeric cable					Art.-No.
						unarmoured			with concentric conductor		
						3x	4x	5x	3x	4x	
Type		L mm	D mm	H mm	max. Cable-Ø mm	Nominal cross section per conductor mm²					
M	11 V	190	36	50	26	1.5 - 6	1.5 - 6	1.5 - 6	1.5/1.5 - 6/6	1.5/1.5 - 6/6	131863
	12 V	260	47	63	34	10 - 16	10 - 16	10 - 16	10/10 - 16/16	10/10 - 16/16	131867
	13 SV	310	55	68	43	16 - 25	16 - 25		16/16 - 25/25		131866
	13 V	360	55	75	43	25 - 35	25 - 35		25/25 - 35/35		131864
	14 V	400	70	95	48	50 - 70	50 - 70		50/50 - 70/70		131865

Straight-through joints



MZ
Cast resin straight-through joint
for control cables and signal cables

Universally suitable for connecting control cables and signal cables or as a cable sheath repair protection joint. Suitable for compression connectors.

Characteristics
- Compact dimensions
- Splice area visible before casting
- High-quality transparent shockproof plastic shell
- Large filler aperture to facilitate casting
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Longitudinally and transversely watertight
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation
- Quick and easy assembly saves time and reduces costs

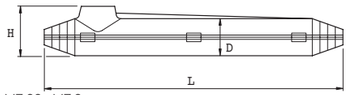
Storage conditions/Shelf life
- Cast resin up to 40 months

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

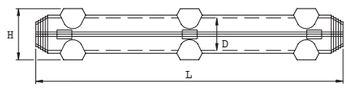
Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Dimensions



MZ 00 - MZ 0



MZ 1 - MZ 3

Scope of delivery
Cover, hydrolysis resistance PUR type EG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, transparent plastic shell, spacer mesh, fill and air-release funnels, PVC insulation tape, protective gloves, assembly instructions

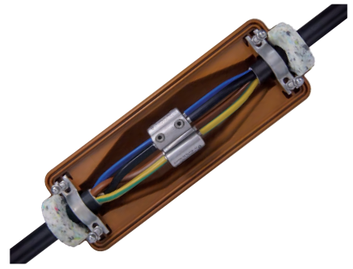
Optional accessory: Shield continuity wire SVL (see Accessories)
Compression connectors (see Connecting technology)
Cleaner UNIVERSAL CLEANER 121 (see Accessories)

Type		L mm	D mm	H mm	max. Cable-Ø mm	Control and signal cable: 0.4 mm Number of wire pairs	0.6 mm Number of wire pairs	0.8 mm Number of wire pairs	1.5 mm² Number of conductors	2.5 mm² Number of conductors	Art.-No.
MZ	00	180	23	35	20	10 - 15	5 - 10	5 - 10	7	5	124505
	0	250	35	55	32	15 - 30	10 - 20	10 - 20	15	10	124506
	1	400	33	57	30	30 - 60	20 - 50	20 - 40	30	20	124510
	2	500	41	67	40	70 - 100	60 - 100	50 - 70	50	40	124513
	3	600	51	78	50	150 - 200	150 - 250	100 - 150	60	50	124511

Shield continuity wire SVL required for telecommunication cables.

CAST RESIN TECHNOLOGY

Straight-through joints



PVM...EG, PVS...EG
Cast resin straight-through joint
with integrated strain relief, for polymeric cables and conductors, with cast resin EG

Universally suitable for connecting polymeric cables or conductors insulated with PVC, PE, XLPE and EPR (e.g. N(A)YY, TT). Suitable for compression or screw connectors on copper and aluminium conductors.

Characteristics
- Compact dimensions
- High-quality brown shockproof plastic shell
- Integrated strain relief
- Large filler aperture to facilitate casting
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Longitudinally and transversely watertight
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation
- Quick and easy assembly saves time and reduces costs

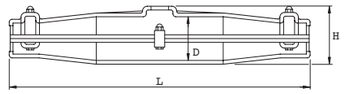
Storage conditions/Shelf life
- Cast resin up to 40 months

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Dimensions



Scope of delivery
Hydrolysis resistance PUR type EG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, sealing gaskets, plastic shell, protective gloves, strain relief, assembly instructions

Optional accessory: Connectors (see Connecting technology)
Cleaner UNIVERSAL CLEANER 121 (see Accessories)

Type		L mm	D mm	H mm	max. Cable-Ø mm	Polymeric cable: unarmoured 3x Nominal cross section per conductor mm²	unarmoured 4x Nominal cross section per conductor mm²	with concentric conductor 3x Nominal cross section per conductor mm²	with concentric conductor 4x Nominal cross section per conductor mm²	Art.-No.
PVM	5 EG	642	116	135	58	95 - 150	95 - 150	150/150	120/120	127706
PVS	5 EG	642	136	160	48	95 - 150	95 - 150	150/150	120/120	127708
PVM	6 EG	850	137	185	58	185 - 300	185 - 240	240/120	185/185	127707

Straight-through joints



PVS...GG
Cast resin straight-through joint

with integrated strain relief, for polymeric cables and conductors, with cast resin GG (reduced hazard-class)

Universally suitable for connecting polymeric cables or conductors insulated with PVC, PE, XLPE and EPR (e.g. N(A)YY, TT). Suitable for compression or screw connectors on copper and aluminium conductors.

Characteristics
- Compact dimensions
- High-quality brown shockproof plastic shell
- Integrated strain relief
- Large filler aperture to facilitate casting
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Longitudinally and transversely watertight
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation
- Quick and easy assembly saves time and reduces costs

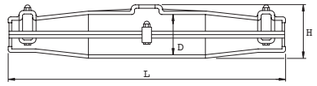
Storage conditions/Shelf life
- Cast resin up to 40 months

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Dimensions



Scope of delivery
Hydrolysis resistance PUR type GG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, sealing gaskets, plastic shell, protective gloves, strain relief, assembly instructions

Optional accessory: Connectors (see Connecting technology)
Cleaner UNIVERSAL CLEANER 121 (see Accessories)

Type		L mm	D mm	H mm	max. Cable-Ø mm	Polymeric cable: unarmoured 3x	Polymeric cable: unarmoured 4x	Polymeric cable: with concentric conductor 3x	Polymeric cable: with concentric conductor 4x	Art.-No.
						Nominal cross section per conductor mm²				
PVS	5 GG	642	136	160	48	95 - 150	95 - 150	150/150	120/150	335567

CAST RESIN TECHNOLOGY

Branch joints



KAV
Cast resin branch joint

for polymeric cables and conductors

Universally suitable for branching cables and conductors insulated with PVC, PE and XLPE (e.g. N(A)YY, GKN). Suitable for cable branch clamps / ring clamps and compression connectors on copper and aluminium conductors.

Characteristics
- Compact dimensions
- Splice area visible before casting
- High-quality transparent shockproof plastic shell
- Large filler aperture to facilitate casting
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Longitudinally and transversely watertight
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation
- Quick and easy assembly saves time and reduces costs

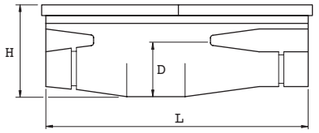
Storage conditions/Shelf life
- Cast resin up to 40 months

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Dimensions



KAV 1 - KAV 2

Scope of delivery
Hydrolysis resistance PUR type EG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, sealing gaskets, transparent plastic shell with locking bar, sealing tape, protective gloves, assembly instructions

Optional accessory: Ring clamp (see Connecting technology)
Screw branch clamp AK (see Connecting technology)
Split bolt clamp FK (see Connecting technology)
Compression connectors (see Connecting technology)
Cleaner UNIVERSAL CLEANER 121 (see Accessories)

Note: Additional earthing set available on request.

Type		L mm	D mm	H mm	max. Cable-Ø mm: Main cable	max. Cable-Ø mm: Branch cable	Nominal cross section per conductor mm²: Polymeric cable unarmoured 4x: Main cable	Nominal cross section per conductor mm²: Polymeric cable unarmoured 4x: Branch cable	Nominal cross section per conductor mm²: Polymeric cable armoured 4x: Main cable	Nominal cross section per conductor mm²: Polymeric cable armoured 4x: Branch cable	Art.-No.
KAV	1	230	58	78	30	20	16	6			131095
	2	270	58	78	33	20	25	10	6	4	124861

Branch joints



H
Cast resin branch joint
for polymeric cables and conductors

Universally suitable for branching cables and conductors insulated with PVC, PE and XLPE (e.g. N(A)YY, TT..). Suitable for assembly of individual one-core branch clamps according to type (split bolt clamps for H 1 and H 2) or branch clamps (H 5...and H 6) and compression or screw connectors.

Characteristics
- Compact dimensions
- Splice area visible before casting
- High-quality transparent shockproof plastic shell
- Can be used as double-branch joint (H 1 and H 2)
- Large filler aperture to facilitate casting
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Longitudinally and transversely watertight
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation
- Quick and easy assembly saves time and reduces costs

Storage conditions/Shelf life
- Cast resin up to 40 months

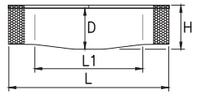
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

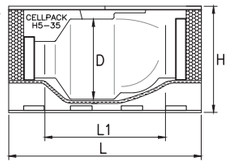
Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Dimensions

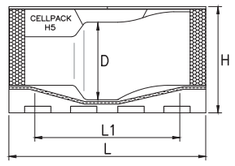
H 1, H 2



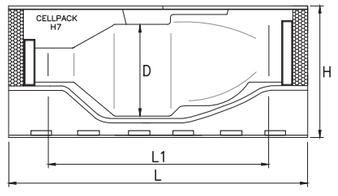
H 5-35



H 5, H 6



H 7



Scope of delivery
Hydrolysis resistance PUR type EG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, sealing gaskets, transparent plastic shell, centring elements (H 5-35 and H 7), steel clamps (H 5 and H 6), protective gloves, assembly instructions

Optional accessory: Screw branch clamp AK (see Connecting technology)
Branch clamp HE 1/70/150 (see Connecting technology)
Split bolt clamp FK (see Connecting technology)
Connectors (see Connecting technology)
Cleaner UNIVERSAL CLEANER 121 (see Accessories)

Note: H5 branch joints can be used with branch clamps HE 1/70/150 (see Connecting technology).

								Polymeric cable				
								unarmoured		with concentric conductor		
												
								4x		3x		
Type		L mm	L1 mm	D mm	H mm	max. Cable-Ø mm		Nominal cross section per conductor mm²				Art.-No.
						Main cable	Branch cable	Main cable	Branch cable	Main cable	Branch cable	
H	1	235	155	60	70	25	20	16	6			124789
	2	270	180	60	80	32	22	16 - 25	6 - 10			124790
	5	300	246	115	170	50	32	95 - 150	16 - 50			124787
	5-35	290	180	135	185	52	36	95 - 150	16 - 70			124815
	6	350	296	135	190	55	39	120 - 185	50 - 70	120/70 - 150/70	35/16 - 70/35	124788
	7	490	330	180	230	59	54	95 - 240	70 - 150	95/95 - 240/240	70/70 - 150/150	124786

CAST RESIN TECHNOLOGY

Branch joints



H 5-SYS
Cast resin branch joint for house connections
with branch clamp, for unarmoured polymeric cables

For branching of cables with insulation made of PVC, PE and XLPE (e.g. N(A)YY, GN-CLN...). With branch clamp, suitable for copper and aluminium conductors.

Characteristics
- High-quality transparent shockproof plastic shell
- Cast resin can be poured in with an angle up to 45° or laterally up to 45°
- Compatible with a branching system with specific contact geometry designed to facilitate connection of branch cable in visible area, ensuring safe handling
- Easy seal application
- Large filler aperture to facilitate casting
- Can be installed / operated while under voltage
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation
- Quick and easy assembly saves time and reduces costs

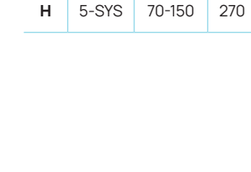
Storage conditions/Shelf life
- Cast resin up to 24 months

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

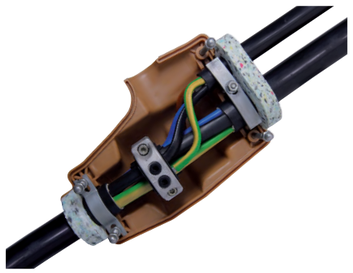
Dimensions



Scope of delivery
Hydrolysis resistance PUR type UWR cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, transparent plastic shell, branch clamp HE 1/70/150, sealing tapes, protective gloves, assembly instructions

Optional accessory: Cleaner UNIVERSAL CLEANER 121 (see Accessories)

								Polymeric cable				
								unarmoured				
												
								4x				
Type			L mm	D mm	H mm	max. Cable-Ø mm		Nominal cross section per conductor mm²				Art.-No.
						Main cable	Branch cable	Main cable SE	Main cable SM	Branch cable		
H	5-SYS	70-150	270	110	180	46	36	95 - 150	70 - 120	16 - 50		195816



P...EG
Cast resin branch joint
with integrated strain relief, for polymeric cables and mass-impregnated paper cables, with cast resin EG

Universally suitable for branching polymeric cables insulated with PVC, PE, XLPE and paper (e.g. N(A)YY, N(A)KBA, GN-CLN, TT) with or without concentric conductor and mass-impregnated paper cables. Suitable for branch clamps on copper and aluminium conductors.

Characteristics
- High-quality brown shockproof plastic shell
- Compact design
- Integrated strain relief
- Large filler aperture to facilitate casting
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Longitudinally and transversely watertight
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation
- Quick and easy assembly saves time and reduces costs

Storage conditions/Shelf life
- Cast resin up to 40 months

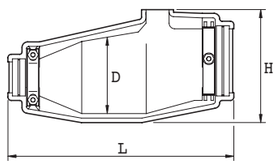
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

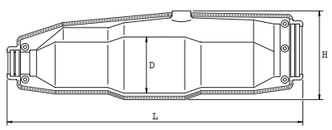
Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Dimensions

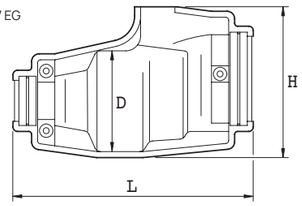
P 3 EG,
PC 5 EG,
PC 7 EG



PB 4 EG,
PE 7 EG



P 4 EG - P 7 EG



Scope of delivery
Hydrolysis resistance PUR type EG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, sealing gaskets, plastic shell with integrated strain relief, hexagon head screws and nuts, assembly instructions

Optional accessory: Branch clamp HE 1/70/150 (see Connecting technology)
Branch clamp KP (see Connecting technology)
Cleaner UNIVERSAL CLEANER 121 (see Accessories)

Note: For branch joints sizes larger than P 5 EG, branch clamps HE 1/70/150 can be used (see Connecting technology).

→ Continued on the next page

CAST RESIN TECHNOLOGY

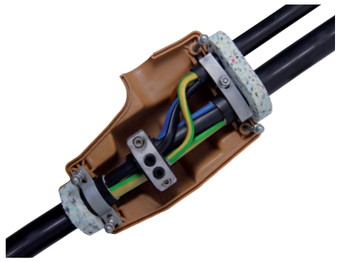
Branch joints

→ Continuation

P...EG
Cast resin branch joint

Type		L mm	D mm	H mm	max. Cable-Ø mm		Nominal cross section per conductor mm²				Art.-No.
							Mass-impregnated paper cable		Polymeric cable unarmoured		
							3x	4x	4x		
					Main cable	Branch cable	Main cable	Branch cable	Main cable	Branch cable	
P	3 EG	342	90	160	15 - 35	12 - 30	10 - 16	10 - 16	10 - 25	4 - 16	127703
	4 EG	302	113	200	28 - 45	21 - 34			50 - 95	16 - 35	127698
	5 EG	325	135	200	37 - 54	20 - 36			95 - 150	16 - 50	127733
	6 EG	432	135	210	44 - 59	28 - 45			150 - 185	50 - 95	127695
	7 EG	442	150	245	40 - 59	40 - 59			120 - 185	120 - 150	127696
PC	5 EG	392	130	210	35 - 54	20 - 36			95 - 185	16 - 50	127699
	7 EG	472	150	225	40 - 59	40 - 50			150 - 240	50 - 95	127700
PB	4 EG	532	120	200	30 - 50	27 - 44	95 - 150	95 - 150	95 - 150	50 - 95	127763
PE	7 EG	692	180	285	40 - 59	40 - 59			150 - 240	120 - 185	127709

Type		L mm	D mm	H mm	max. Cable-Ø mm		Nominal cross section per conductor mm²				Art.-No.
							Polymeric cable with concentric conductor				
							3x		4x		
					Main cable	Branch cable	Main cable	Branch cable	Main cable	Branch cable	
P	3 EG	342	90	160	15 - 35	12 - 30	10/10 - 16/16	4/4 - 16/16	10/10 - 16/16	4/4 - 16/16	127703
	4 EG	302	113	200	28 - 45	21 - 34					127698
	5 EG	325	135	200	37 - 54	20 - 36					127733
	6 EG	432	135	210	44 - 59	28 - 45					127695
	7 EG	442	150	245	40 - 59	40 - 59					127696
PC	5 EG	392	130	210	35 - 54	20 - 36	95/95 - 150/150	16/16 - 50/50	95/95 - 150/150	16/16 - 50/50	127699
	7 EG	472	150	225	40 - 59	40 - 50	150/150 - 185/185	50/50 - 95/95	150/150 - 185/185	50/50 - 95/95	127700
PB	4 EG	532	120	200	30 - 50	27 - 44		50/50 - 95/95		50/25 - 95/50	127763
PE	7 EG	692	180	285	40 - 59	40 - 59					127709



P...GG
Cast resin branch joint

with integrated strain relief, for polymeric cables and mass-impregnated paper cables, with cast resin GG (reduced hazard-class)

Universally suitable for branching polymeric cables insulated with PVC, PE, XLPE and paper (e.g. N(A)YY, N(A)KBA, GN-CLN, TT) with or without concentric conductor and mass-impregnated paper cables. Suitable for branch clamps on copper and aluminium conductors.

Characteristics
- High-quality brown shockproof plastic shell
- Compact design
- Integrated strain relief
- Large filler aperture to facilitate casting
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Longitudinally and transversely watertight
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation
- Quick and easy assembly saves time and reduces costs

Storage conditions/Shelf life
- Cast resin up to 24 months

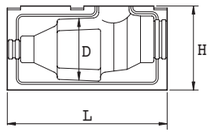
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

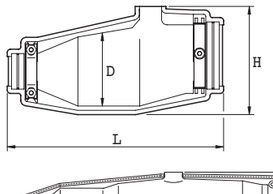
Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Dimensions

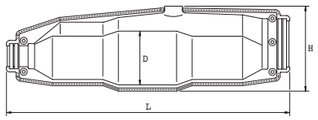
P 2 GG



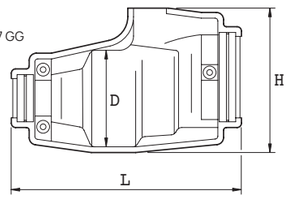
P 3 GG,
PC 5 GG



PB 4 GG,
PE 7 GG



P 5 GG - P 7 GG



Scope of delivery
Hydrolysis resistance PUR type GG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, sealing gaskets, plastic shell with integrated strain relief, hexagon head screws and nuts, assembly instructions

Optional accessory: Branch clamp HE 1/70/150 (see Connecting technology)
Branch clamp KP (see Connecting technology)
Cleaner UNIVERSAL CLEANER 121 (see Accessories)

Note: For branch joints sizes larger than P 5 GG, branch clamps HE 1/70/150 can be used (see Connecting technology).

→ Continued on the next page

CAST RESIN TECHNOLOGY

Branch joints

→ Continuation

P...GG
Cast resin branch joint

Type		L mm	D mm	H mm	max. Cable-Ø mm		Nominal cross section per conductor mm²				Art.-No.
							Mass-impregnated paper cable		Polymeric cable unarmoured		
							3x	4x	4x		
					Main cable	Branch cable	Main cable	Branch cable	Main cable	Branch cable	
P	2 GG	240	90	127	13 - 25	13 - 25	10 - 16	10 - 16	2.5 - 16	2.5 - 16	329587
	3 GG	342	90	160	15 - 35	12 - 30			10 - 25	4 - 16	329589
	5 GG	325	135	200	37 - 54	20 - 36			95 - 150	16 - 50	329567
	6 GG	432	135	210	44 - 59	28 - 45			150 - 185	50 - 95	329569
	7 GG	442	150	245	40 - 59	40 - 59			120 - 185	120 - 150	329588
PC	5 GG	392	130	210	35 - 54	20 - 36			95 - 185	16 - 50	335566
PB	4 GG	532	120	200	30 - 50	27 - 44	95 - 150	95 - 150	95 - 150	50 - 95	329572
PE	7 GG	692	180	285	40 - 59	40 - 59			150 - 240	120 - 185	335565

Type		L mm	D mm	H mm	max. Cable-Ø mm		Nominal cross section per conductor mm²				Art.-No.
							Polymeric cable with concentric conductor				
							3x		4x		
					Main cable	Branch cable	Main cable	Branch cable	Main cable	Branch cable	
P	2 GG	240	90	127	13 - 25	13 - 25	10/10 - 16/16	4/4 - 16/16	10/10 - 16/16	4/4 - 16/16	329587
	3 GG	342	90	160	15 - 35	12 - 30					329589
	5 GG	325	135	200	37 - 54	20 - 36					329567
	6 GG	432	135	210	44 - 59	28 - 45					329569
	7 GG	442	150	245	40 - 59	40 - 59					329588
PC	5 GG	392	130	210	35 - 54	20 - 36	95/95 - 150/150	16/16 - 50/50	95/95 - 150/150	16/16 - 50/50	335566
PB	4 GG	532	120	200	30 - 50	27 - 44		50/50 - 95/95		50/25 - 95/50	329572
PE	7 GG	692	180	285	40 - 59	40 - 59					335565

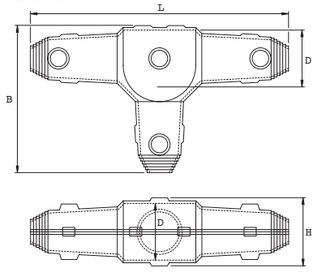
Branch joints



T...EG
Cast resin branch joint
for polymeric cables and conductors

Universally suitable for branching polymeric cables or conductors insulated with PVC, PE, XLPE and EPR (e.g. N(A)YY, NYM, TT) with or without concentric conductor. Suitable for branch clamps on copper and aluminium conductors.

Dimensions



Characteristics
- Compact dimensions
- Splice area visible before casting
- High-quality transparent shockproof plastic shell
- Large filler aperture to facilitate casting
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Longitudinally and transversely watertight
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation
- Quick and easy assembly saves time and reduces costs

Storage conditions/Shelf life
- Cast resin up to 40 months

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Scope of delivery
Hydrolysis resistance PUR type EG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, transparent plastic shell, fill and air-release funnels, PVC insulation tape, protective gloves, assembly instructions

Optional accessory: Screw branch clamp AK (see Connecting technology)
Branch clamp KP (see Connecting technology)
Split bolt clamp FK (see Connecting technology)
Cleaner UNIVERSAL CLEANER 121 (see Accessories)

Type		L mm	B mm	D mm	H mm	max. Cable-Ø mm	Polymeric cable unarmoured 3x max. Nominal cross section per conductor mm² Main cable	Branch cable	4x Main cable	Branch cable	5x Main cable	Branch cable	Art.-No.
T	1 EG	240	138	50	60	22	10	10	6	6	4	4	131149
	2 EG	267	154	60	70	30	25	25	16	10	10	10	133024
	2.5 EG	310	183	75	85	37	50	50	35	16	16	10	131855
	3 EG	354	212	90	100	42	70	70	50	25	25	16	131151
	4 EG	432	262	110	125	52	120	120	95	50	50	35	131778
	5 EG	550	290	130	155	62	185	150	185	70			131854

Type		L mm	B mm	D mm	H mm	max. Cable-Ø mm	Polymeric cable with concentric conductor 3x max. Nominal cross section per conductor mm² Main cable	Branch cable	4x Main cable	Branch cable	Art.-No.
T	1 EG	240	138	50	60	22	6/6	6/6			131149
	2 EG	267	154	60	70	30	16/16	10/10	16/16	16/16	133024
	2.5 EG	310	183	75	85	37	35/35	16/16	35/16	25/16	131855
	3 EG	354	212	90	100	42	50/50	25/25	50/25	35/16	131151
	4 EG	432	262	110	125	52	95/95	50/50	95/50	70/35	131778
	5 EG	550	290	130	155	62	185/185	70/70	150/70	95/50	131854

CAST RESIN TECHNOLOGY

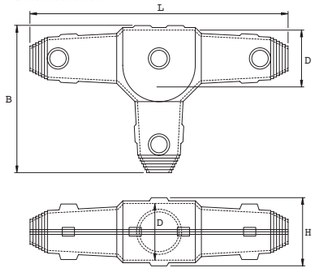
Branch joints



T...GG
Cast resin branch joint
for polymeric cables and conductors

Universally suitable for branching polymeric cables or conductors insulated with PVC, PE, XLPE and EPR (e.g. N(A)YY, NYM, TT) with or without concentric conductor. Suitable for branch clamps on copper and aluminium conductors.

Dimensions



Characteristics
- Compact dimensions
- Splice area visible before casting
- High-quality transparent shockproof plastic shell
- Large filler aperture to facilitate casting
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Longitudinally and transversely watertight
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation
- Quick and easy assembly saves time and reduces costs

Storage conditions/Shelf life
- Cast resin up to 24 months

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Scope of delivery
Hydrolysis resistance PUR type GG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, transparent plastic shell, fill and air-release funnels, PVC insulation tape, protective gloves, assembly instructions

Optional accessory: Screw branch clamp AK (see Connecting technology)
Branch clamp KP (see Connecting technology)
Split bolt clamp FK (see Connecting technology)
Cleaner UNIVERSAL CLEANER 121 (see Accessories)

Type		L mm	B mm	D mm	H mm	max. Cable-Ø mm	Polymeric cable unarmoured 3x max. Nominal cross section per conductor mm² Main cable	Branch cable	4x Main cable	Branch cable	5x Main cable	Branch cable	Art.-No.
T	1 GG	240	138	50	60	22	10	10	6	6	4	4	353846
	2 GG	267	154	60	70	30	25	25	16	10	10	10	353847
	2.5 GG	310	183	75	85	37	50	50	35	16	16	10	353848
	3 GG	354	212	90	100	42	70	70	50	25	25	16	353849
	4 GG	432	262	110	125	52	120	120	95	50	50	35	353860

Type		L mm	B mm	D mm	H mm	max. Cable-Ø mm	Polymeric cable with concentric conductor 3x max. Nominal cross section per conductor mm² Main cable	Branch cable	4x Main cable	Branch cable	Art.-No.
T	1 GG	240	138	50	60	22	6/6	6/6			353846
	2 GG	267	154	60	70	30	16/16	10/10	16/16	16/16	353847
	2.5 GG	310	183	75	85	37	35/35	16/16	35/16	25/16	353848
	3 GG	354	212	90	100	42	50/50	25/25	50/25	35/16	353849
	4 GG	432	262	110	125	52	95/95	50/50	95/50	70/35	353860

Branch joints



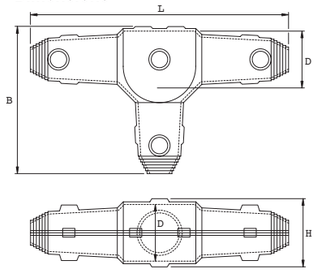
T...V FKM

Cast resin branch joint

with split bolt branch clamps, for polymeric cables and conductors

Universally suitable for branching polymeric cables or conductors insulated with PVC, PE, XLPE and EPR (e.g. N(A)YY, NYM). With one-core branch clamps, suitable for copper and aluminium conductors.

Dimensions



Characteristics
- Compact dimensions
- Splice area visible before casting
- High-quality transparent shockproof plastic shell
- Large filler aperture to facilitate casting
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Longitudinally and transversely watertight
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation
- Quick and easy assembly saves time and reduces costs

Storage conditions/Shelf life
- Cast resin up to 40 months

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393

Scope of delivery
Hydrolysis resistance PUR type EG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, transparent plastic shell, fill and air-release funnels, screw branch clamps, PVC insulation tape, protective gloves, assembly instructions

Optional accessory: Cleaner UNIVERSAL CLEANER 121 (see Accessories)

Type		L mm	B mm	D mm	H mm	Cable-Ø mm		Polymeric cable unarmoured 4x Nominal cross section per conductor mm²		Polymeric cable unarmoured 5x Nominal cross section per conductor mm²		Art.-No.
						Main cable	Branch cable	Main cable	Branch cable	Main cable	Branch cable	
T	1 V FKM	240	138	50	60	9-22	9-22	2.5 - 6	1.5 - 6	2.5 - 6	1.5 - 6	436820
	2 V FKM	267	154	60	70	17-30	17-30	4-16	4-16	4-16	4-16	436821
	2.5 V FKM	310	183	75	85	21-37	21-37	6 - 25	6 - 25	6 - 25	6 - 25	436822

CAST RESIN TECHNOLOGY

Branch joints



Y...EG

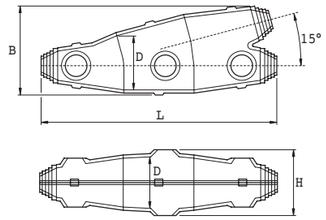
Cast resin branch joint

for polymeric cables and conductors

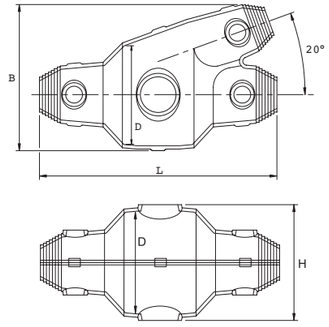
Universally suitable for branching polymeric cables or conductors insulated with PVC, PE, XLPE and EPR (e.g. N(A)YY, NYM, TT) with or without concentric conductor. Suitable for branch clamps on copper and aluminium conductors.

Dimensions

Y 0 EG, Y 3.5 EG, Y 6 EG



Y 00 EG, Y 1 EG, Y 2 EG, Y 3 EG, Y 4 EG, Y 4.5 EG, Y 5 EG



Characteristics
- Compact dimensions
- Splice area visible before casting
- High-quality transparent shockproof plastic shell
- Large filler aperture to facilitate casting
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Longitudinally and transversely watertight
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation
- Quick and easy assembly saves time and reduces costs

Storage conditions/Shelf life
- Cast resin up to 40 months

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Scope of delivery
Hydrolysis resistance PUR type EG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, transparent plastic shell, closing stops, fill and air-release funnels, PVC insulation tape, protective gloves, assembly instructions

Optional accessory: Screw branch clamp AK (see Connecting technology)
Branch clamp KP (see Connecting technology)
Branch clamp HE 1/70/150 (see Connecting technology)
Split bolt clamp FK (see Connecting technology)
Cleaner UNIVERSAL CLEANER 121 (see Accessories)

→ Continued on the next page

→ Continuation

Y...EG
Cast resin branch joint

								Polymeric cable unarmoured							
								3x		4x		5x			
Type		L mm	B mm	D mm	H mm	max. Cable-Ø mm		max. Nominal cross section per conductor mm²						Art.-No.
						Main cable	Branch cable	Main cable	Branch cable	Main cable	Branch cable	Main cable	Branch cable	
Y	00 EG	150	75	38	50	19	19	4	2.5	4	2.5	4	2.5	133841
	0 EG	185	80	45	55	17	17	6	6	6	6	6	6	152932
	1 EG	240	110	60	70	22	22	10	10	10	10	10	10	124730
	2 EG	285	120	65	75	34	30	25	25	25	25	25	25	147533
	3 EG	240	145	100	110	42	37	50	25	50	35	25	25	131123
	3.5 EG	300	150	110	120	54	38	70	25	50	35	35	35	131118
	4 EG	285	170	110	120	53	37	95	35	95	50	50	35	124763
	4.5 EG	335	193	120	130	56	42	150	70	150	70	120	70	131119
	5 EG	382	220	140	150	62	52	240	150	240	95	150	95	157645
	6 EG	570	275	180	190	90	80	300	240	300	185	150	150	131126

							Polymeric cable with concentric conductor			
							3x			
Type		L mm	B mm	D mm	H mm	max. Cable-Ø mm		max. Nominal cross section per conductor mm²		Art.-No.
						Main cable	Branch cable	Main cable	Branch cable	
Y	00 EG	150	75	38	50	19	19			133841
	0 EG	185	80	45	55	17	17	6/6	6/6	152932
	1 EG	240	110	60	70	22	22	10/10	10/10	124730
	2 EG	285	120	65	75	34	30	16/16	10/10	147533
	3 EG	240	145	100	110	42	37	25/25	16/16	131123
	3.5 EG	300	150	110	120	54	38	35/35	25/25	131118
	4 EG	285	170	110	120	53	37	70/70	25/25	124763
	4.5 EG	335	193	120	130	56	42	120/120	95/95	131119
	5 EG	382	220	140	150	62	52	150/150	95/95	157645
	6 EG	570	275	180	190	90	80	240/120	185/95	131126

CAST RESIN TECHNOLOGY

Branch joints



Y...GG
Cast resin branch joint
for polymeric cables and conductors

Universally suitable for branching polymeric cables or conductors insulated with PVC, PE, XLPE and EPR (e.g. N(A)YY, NYM, TT) with or without concentric conductor. Suitable for branch clamps on copper and aluminium conductors.

Characteristics
- Compact dimensions
- Splice area visible before casting
- High-quality transparent shockproof plastic shell
- Large filler aperture to facilitate casting
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Longitudinally and transversely watertight
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation
- Quick and easy assembly saves time and reduces costs

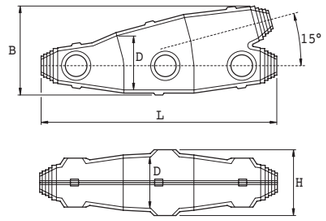
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

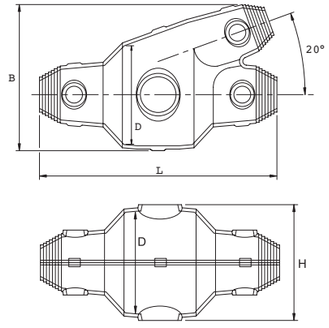
Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Storage conditions/Shelf life
- Cast resin up to 24 months

Dimensions



Y 0 GG



Y 1 GG, Y 2 GG, Y 3 GG, Y 4 GG,

Scope of delivery
Hydrolysis resistance PUR type GG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, transparent plastic shell, closing stops, fill and air-release funnels, PVC insulation tape, protective gloves, assembly instructions

Optional accessory: Screw branch clamp AK (see Connecting technology)
Branch clamp KP (see Connecting technology)
Branch clamp HE 1/70/150 (see Connecting technology)
Split bolt clamp FK (see Connecting technology)
Cleaner UNIVERSAL CLEANER 121 (see Accessories)

→ Continued on the next page

Branch joints

→ Continuation

Y...GG
Cast resin branch joint

Type		L mm	B mm	D mm	H mm	max. Cable-Ø mm		max. Nominal cross section per conductor mm²						Art.-No.
								Polymeric cable unarmoured						
								3x		4x		5x		
						Main cable	Branch cable	Main cable	Branch cable	Main cable	Branch cable	Main cable	Branch cable	
Y	0 GG	185	80	45	55	17	17	6	6	6	6	6	6	353813
	1 GG	240	110	60	70	22	22	10	10	10	10	10	10	353814
	2 GG	285	120	65	75	34	30	25	25	25	25	25	25	353815
	3 GG	240	145	100	110	42	37	50	25	50	35	25	25	353816
	4 GG	285	170	110	120	53	37	95	35	95	50	50	35	353817

Type		L mm	B mm	D mm	H mm	max. Cable-Ø mm		max. Nominal cross section per conductor mm²		Art.-No.
								Polymeric cable with concentric conductor		
								3x		
						Main cable	Branch cable	Main cable	Branch cable	
Y	0 GG	185	80	45	55	17	17	6/6	6/6	353813
	1 GG	240	110	60	70	22	22	10/10	10/10	353814
	2 GG	285	120	65	75	34	30	16/16	10/10	353815
	3 GG	240	145	100	110	42	37	25/25	16/16	353816
	4 GG	285	170	110	120	53	37	70/70	25/25	353817

CAST RESIN TECHNOLOGY

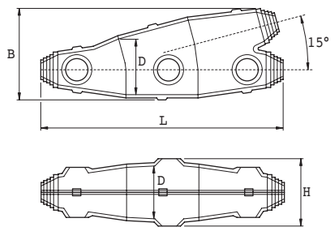
Branch joints



Y...V FKM
Cast resin branch joint
with split bolt branch clamps, for polymeric cables and conductors

Universally suitable for branching polymeric cables or conductors insulated with PVC, PE, XLPE and EPR (e.g. N(A)YY, NYM). With one-core branch clamps, suitable for copper and aluminium conductors.

Dimensions



Characteristics
- Compact dimensions
- Splice area visible before casting
- High-quality transparent shockproof plastic shell
- Large filler aperture to facilitate casting
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Longitudinally and transversely watertight
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation
- Quick and easy assembly saves time and reduces costs

Storage conditions/Shelf life
- Cast resin up to 40 months

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393

Scope of delivery
Hydrolysis resistance PUR type EG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, transparent plastic shell, closing stops, fill and air-release funnels, screw branch clamps, PVC insulation tape, protective gloves, assembly instructions

Optional accessory: Cleaner UNIVERSAL CLEANER 121 (see Accessories)

Type		L mm	B mm	D mm	H mm	max. Cable-Ø mm		Nominal cross section per conductor mm²				Art.-No.
								Polymeric cable unarmoured				
								4x		5x		
						Main cable	Branch cable	Main cable	Branch cable	Main cable	Branch cable	
Y	0 V FKM	185	80	45	55	8 - 17	8 - 17	2.5 - 4	1.5 - 4	2.5 - 4	1.5 - 4	436823
	1 V FKM	240	110	60	70	9 - 22	9 - 22	2.5 - 6	1.5 - 6	2,5 - 6	1.5 - 6	436824
	2 V FKM	285	120	65	75	19 - 34	16 - 30	4-16	4-16	4-16	4-16	436825

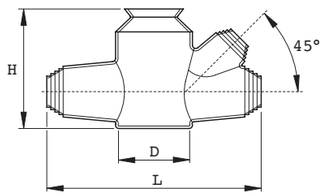
Branch joints



YCP
Cast resin branch joint
for polymeric cables and conductors

Suitable for branching the 1-core cables or conductors, e.g. wires for cathodic corrosion protection from chemical and electrochemical reactions in underground area and under water. Pipes, warehouse containers, electric supply lines and other metal constructions are economically and effectively protected against passive corrosion (polymeric casings, mastic glass fibre casings). Suitable for branch clamps on copper and aluminium conductors.

Dimensions



Characteristics
- Compact dimensions
- Splice area visible before casting
- High-quality transparent shockproof plastic shell
- Large filler aperture to facilitate casting
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Longitudinally and transversely watertight
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation
- Quick and easy assembly saves time and reduces costs

Storage conditions/Shelf life
- Cast resin up to 40 months

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Scope of delivery
Hydrolysis resistance PUR type EG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, transparent plastic shell, closing stops, PVC insulation tape, protective gloves, assembly instructions

Optional accessory: Screw branch clamp AK (see Connecting technology)
Split bolt clamp FK (see Connecting technology)
Cleaner UNIVERSAL CLEANER 121 (see Accessories)

								Polymeric cable unarmoured			
								1x			
Type		L mm	B mm	D mm	H mm	max. Cable-Ø mm		Nominal cross section per conductor mm²		Art.-No.
						Main cable	Branch cable	Main cable	Branch cable	
YCP		135	48	44	75	23	20	10 - 50	4 - 50	124683

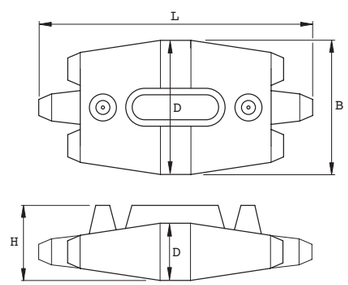
Branch joints



D1
Cast resin branch / straight-through joint
particularly for small cross sections for polymeric cables and conductors, control cables and signal cables

The parallel-branch joint (dual connection joint) is suitable for branching polymeric cables or conductors mainly used for 1-core special cables for airport runways lighting. Suitable for compression connectors on copper conductors.

Dimensions



Characteristics
- Compact dimensions
- Splice area visible before casting
- High-quality transparent shockproof plastic shell
- Large filler aperture to facilitate casting
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Longitudinally and transversely watertight
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation
- Quick and easy assembly saves time and reduces costs

Storage conditions/Shelf life
- Cast resin up to 40 months

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

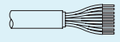
Voltage level
- U_0/U (U_m) 0,6/1 (1,2) kV - 5KV DC

Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Scope of delivery
Cover, hydrolysis resistance PUR type EG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, transparent plastic shell, PVC insulation tape, protective gloves, assembly instructions

Optional accessory: Compression connectors (see Connecting technology)
Cleaner UNIVERSAL CLEANER 121 (see Accessories)

								Polymeric cable unarmoured				
												
								1x		4x		
Type		L mm	B mm	D1 mm	D2 mm	H mm	max. Cable-Ø mm	Nominal cross section per conductor mm²				Art.-No.
D1		185	90	84	30	48	16	6		2.5		124685

								Control and signal cable				
												
								0.6 mm	0.8 mm	0.75 mm²	1.5 mm²	
Type		L mm	B mm	D1 mm	D2 mm	H mm	max. Cable-Ø mm	Number of wire pairs		Number of conductors		Art.-No.
D1		185	90	84	30	48	16	6 - 10	6 - 6	6	4	124685



M1, T1 and Y1

Cast resin straight-through and branch joints

with WAGO COMPACT Splicing Connectors of the series 221, for polymeric cables

Universally suitable for connecting polymeric cables or conductors insulated with PVC, PE and XLPE (e.g. N(A)YY, NYM, TT). Suitable for copper cables.

Characteristics
- High-quality transparent shockproof plastic shell
- With WAGO COMPACT Splicing Connectors of the series 221
- Quick and easy assembly saves time and reduces costs
- Ready for immediate operation
- Durable protection from moisture / waterproof
- Splice area visible before casting
- Compact dimensions of the joint
- Large filler aperture to facilitate casting
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Longitudinally and transversely watertight
- High electrical insulating values
- High mechanical strength
- Not harmful to the environment

Storage conditions/Shelf life
- Cast resin up to 40 months

Application/Suitability
- Outdoor applications
- Interiors with high humidity exposure
- Public buildings, Underground and outdoor

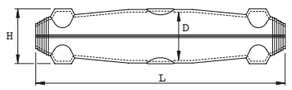
Voltage level
- U_0/U (U_m) 0,6/1 (1,2) kV

Test standards
- DIN EN 50393

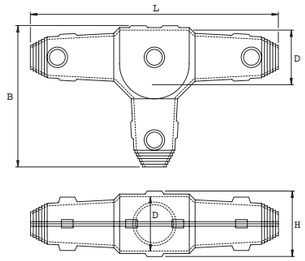
WAGO | inside

Dimensions

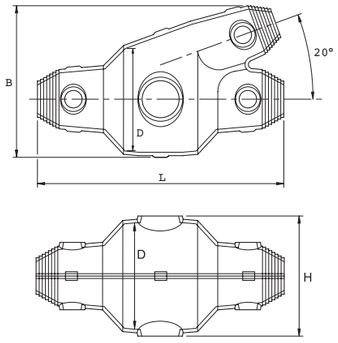
Dimensions M1



Dimensions T1



Dimensions T1



Scope of delivery
Cover, hydrolysis resistance PUR type EG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, WAGO COMPACT Splicing Connectors of the series 221 (T1 and Y1: Type 221 - 413, M1: Type 221 - 2411), transparent plastic shell, PVC insulation tape, protective gloves, funnel clips, assembly instructions

Optional accessory: Funnel set/Filling in funnel (on request)
Heat shrinkable crimp connector (see Connecting technology)
Cleaner UNIVERSAL CLEANER 121 (see Accessories)

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WAGO is a registered trademark of WAGO Verwaltungsellschaft mbH

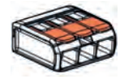
CAST RESIN TECHNOLOGY

Straight through and branch joints

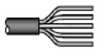
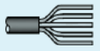
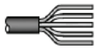
→ Continuation

M1, T1 and Y1

Cast resin straight-through and branch joints

Type	Shell Type	WAGO COMPACT-Splicing connector	Single, fine or multi-stranded conductors mm²	max. Cable-Ø mm		min. Cable-Ø mm		EG cast resin ml	Art.-No.
				Main cable	Branch cable	Main cable	Branch cable		
T1 WAGO	T1	 5 x 221-413	0,5 - 4	22	22	9	9	464	425469
Y1 WAGO	Y1	 5 x 221-413	0,5 - 4	22	22	9	9	464	425490
M1 WAGO	M1	 5 x 221-2411	0,5 - 2,5* 0,5 - 4	22	-	9	-	286	425491

* With stranded conductors

							Assignment with WAGO COMPACT Splicing Connectors	
Type	L mm	B mm	D mm	H mm	Max. possible Number of conductors	Number of Cable inputs x Cable/conductor	221-413	221-2411
T1	240	138	50	60	15	 3 x 5	5	-
Y1	240	110	60	70	15	 3 x 5	5	-
M1	240	-	40	45	10	 2 x 5	-	5

WAGO | inside



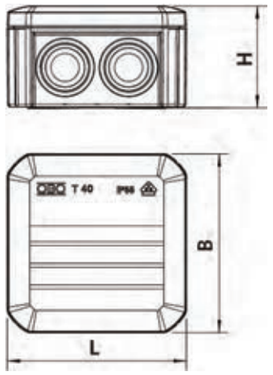
Universal Box CG WAGO

Connection and branch box

OBO cable junction box with WAGO COMPACT type 221 splicing connectors, the cast resin does not require a hazard label

The Universal Box CG combines the advantages of a junction and branch box with those of resin cable accessories. It is universally suitable for implementing complex electrical connections in the tightest of spaces.
The system ensures permanent protection against moisture and completely eliminates condensation.

Dimensions



Properties
- High-quality cable junction boxes from OBO BETTERMANN available in various housing sizes
- Fitted with WAGO COMPACT 221 series splicing connectors
- Protection class: IP68 with cast resin
- Halogen-free
- UV-resistant junction box
- CMR, isocyanate and silicone-free, no hazard label required
- Environmentally compatible
- High flexibility thanks to removable cast resin
- Translucent, even after hardening
- Durability, even when exposed to permanent moisture

Storage time/shelf life
- Cast resin up to 24 months

Application/suitability
- Indoor areas (also with high exposure to moisture)
- Outdoor
- Earth

Voltage level
- 230/400 V

Test standards
- DIN EN 60529 (VDE 0470)
- DIN EN 50393 (VDE 0278)

WAGO | inside

Scope of delivery
2-component hydrocarbon resin CG, measured out in a practical two-chamber mixing bag so that it is ready to mix, high-quality cable junction box from OBO BETTERMANN, WAGO COMPACT 221 series splicing connectors, funnel for convenient vertical casting, emery cloth and installation instructions

Optional accessories: UNIVERSAL CLEANER 121 (see accessories)

Note: Cast resin CG can be reordered for refilling.

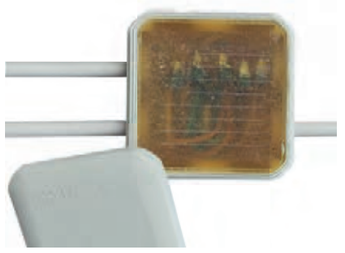
Type		OBO BETTERMANN cable junction box	WAGO COMPACT splicing connectors	Nominal cross-section per core mm²	Cast resin does not require a hazard label ml	Art.-No.
Universal Box CG	T40	T40	5 x 221-413	0,14f / 0,2 - 4	275	425589
	T60	T60	5 x 221-613	0,5 - 6	420	428123
	T100	T100	5 x 221-615	0,5 - 6	730	428124

Technical data	OBO BETTERMANN cable junction box type		
	T40	T60	T100
Dimension (LxBxH) mm inside outside	 77x77x46 90x90x52	 100x100x48 114x114x57	 136x102x57 150x116x67
Entry point	7 x M20	7 x M20	10 x M20
Cover catch	Snap closure	Screw cap	Screw cap

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CAST RESIN TECHNOLOGY

Universal connection and branch boxes



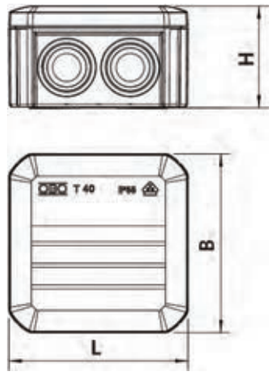
Universal Box CG

Connection and branch box

with clamps and non-labelled cast resin

The connection and branch box combines the advantages of a traditional box with the well-known professional cast resin technology. Complex connections in a very small volume can be done with this universal box. The system guarantees an absolute waterproof protection, excluding all condensation risks.

Dimensions



Characteristics
- OBO BETTERMANN T40 branch box with plug-in seal
- Practical connection and branch box with 7 x M20 membran entries
- Protection class: IP68 with cast resin
- Halogen Free
- UV-resistant branch box
- 5-pole clamps for conductor crosssections of 0.5 - 2.5 mm²
- Free hazardous labelling (isocyanate and silicon free)
- Not harmful to the environment
- High flexibility due to removable cast resin
- Translucent before and after curing
- Cable retaining rings for additional stabilisation of the cable
- Withstands long-term exposure to moisture

Storage conditions/Shelf life
- Cast resin up to 24 months

Application/Suitability
- Outdoor
- Indoor areas (also with high humidity level)
- Underground

Voltage level
- 230/400 V

Test standards
- DIN EN 60529 (VDE 0470)
- DIN EN 50393 (VDE 0278)

Scope of delivery
250 ml 2-component hydrocarbon resin CG (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, box with membran entries, 5 clamps 5-pole 0.5 - 2.5 mm², 12 cable retaining rings CP-Z1, funnel for easy vertical filling, emery cloth, assembly instructions

Optional accessory: Cleaner UNIVERSAL CLEANER 121 (see Accessories)
Note: Type CG cast resin refills may be ordered separately.

						Polymeric cable unarmoured	
Type		L mm	B mm	H mm	max. Cable-Ø mm	Nominal cross section per conductor mm²	Art.-No.
Universalbox CG	250 ml	90	90	52	20	0,5 - 2,5	420083

Cast resins



EG
Two-component PUR cast resin
universal

Cast resin EG is suitable for the following types of cables: Low voltage polymeric-insulated and mass-impregnated paper cables up to 1 kV, polymeric-insulated and mass-impregnated paper telecommunication and signal cables and medium voltage cables (as mechanical protection and protection against moisture).

Characteristics
- Two-component PUR cast resin
- In practical and easy-to-use two-chamber bags
- Favourable flow properties
- High hydrolysis resistance
- Resistant to alkaline earth elements
- Halogen-free
- Not harmful to the environment
- Flexibility ensures mechanical stress absorption
- No fracturing under electrical stress
- No fracturing under mechanical tension
- Excellent adhesion to all cable materials
- Low hardening temperature

Storage conditions/Shelf life
- In aluminium bag 40 months at ambient temperatures between 15 °C and 35 °C

Test standards
- DIN VDE 0278-631-1

Scope of delivery
1 PU

Note: Other sizes available on request.

Type		Content ml	Art.-No.
EG	80	80	134999
	143	143	124909
	286	286	124986
	370	370	124962
	464	464	124989
	730	730	124990
	1000	1000	124992
	1150	1150	124901
	1500	1500	124991
	2000	2000	132206

→ Continued on the next page

CAST RESIN TECHNOLOGY

Cast resins

→ Continuation

EG
Two-component PUR cast resin

Technical data	Value
Flash point of cast resin component (open cup) **Flash point of reactant (open cup)**	> 200 °C > 200 °C
Processing time (pot life) of 300 ml mixture at **5 °C** **23 °C** **35 °C**	 40 minutes 23 minutes 15 minutes
max. Reaction temperature	80 °C
Total volume shrinkage during curing	4.0 %
Density	1.10 g/cm³
Impact strength	> 10 kJ/m²
Hardness	55 Shore D
Water absorption in warm water (42 d at 50 °C)	350 mg
Electrolytic corrosion	A 1
1 minute test voltage at **23 °C** **80 °C**	 > 20 kV > 20 kV
Dielectric dissipation factor at **23 °C and 1 kHz** **23 °C and 50 Hz**	 0.05 0.08
Dielectric constant at **23 °C and 1 kHz** **23 °C and 50 Hz**	 5.3 5.1
Tracking resistance	KA 3c
Operating temperature range	-40 °C up to +105 °C

Cast resins



GG
Two-component PUR cast resin
reduced hazard-class, diisocyanates training is not required

Cast resin GG is a special development to fulfill reduced hazard-classification. It's labelling identification, according to the CLP-Regulation (EC) No. 1272/2008, does not contain the H351 statement. The cast resin GG has similar properties as the known polyurethane cast resins. Cast resin GG is suitable for low voltage polymeric-insulated and mass-impregnated paper cables up to 1 kV.

Characteristics
- Two-component PUR cast resin
- In practical and easy-to-use two-chamber bags
- Favourable flow properties
- High hydrolysis resistance
- Resistant to alkaline earth elements
- Halogen-free
- Not harmful to the environment
- Flexibility ensures mechanical stress absorption
- No fracturing under electrical stress
- No fracturing under mechanical tension
- Excellent adhesion to all cable materials
- Low hardening temperature
- Reduced hazardous labelling identi-fi-cation according to the CLP-Regu-lation (EC) No. 1272/2008

Storage conditions/Shelf life
- In aluminium bag 24 months at ambient temperatures between 15 °C and 35 °C

Test standards
- DIN VDE 0278-631-1

DIISOCYANATES FREE OF TRAINING

Scope of delivery
1 PU

Note: Other sizes available on request.

Type		Content ml	Art.-No.
GG	80	80	353869
	143	143	353890
	286	286	353891
	370	370	353892
	464	464	353893
	730	730	353894
	1000	1000	353818
	1700	1700	335750

Technical data	Value
Flash point of cast resin component (open cup)	> 200 °C
Flash point of reactant (open cup)	> 200 °C
Processing time (pot life) 300 ml mixture at	
5 °C	68 minutes
23 °C	24 minutes
35 °C	15 minutes
max. Reaction temperature	60 °C
Total volume shrinkage during curing	< 6.0 %
Density	1.32 g/cm³
Impact strength	> 10 kJ/m²
Hardness	30 Shore D
Operating temperature range	-40 °C up to +90 °C

CAST RESIN TECHNOLOGY

Cast resins



CG
Two-component hydrocarbon resin
non-labelled, free of silicone and isocyanate

Cast resin CG is an environment-friendly and removable 2-component cold curing casting compound based on hydrocarbon resins which does not require hazardous label acc. to CLP-Regulation (EC) No. 1272/2008. The translucent cast resin allows a visual inspection even after the casting. The connection is accessible at any time by removing the cast resin. Typical application areas: cable branch-off cabinet, connection boxes, telecommunication cable connections, electronic components.

Characteristics
- Two-component hydrocarbon cast resin
- In practical and easy-to-use two-chamber bags
- Exceptional electrical insulation
- Free hazardous labelling identifica-tion according to the CLP-Regulation (EC) No. 1272/2008
- Free of isocyanate and silicon
- Removable
- Translucent before and after curing
- Favourable flow properties
- Low volume shrinkage
- Cold curing (no heat during reaction)
- Halogen free
- No fracturing under electrical stress
- Excellent adhesion to all cable materials

Storage conditions/Shelf life
- In aluminium bag 24 months at ambient temperatures between 15 °C and 30 °C

Note
- Due to its soft elastic mechanical properties, which are favourable for removal, it is advised to implement a cable relief, if stresses on the cable are likely to occur.

Test standards
- DIN EN 60455-3-8
- DIN EN 50655-1

Scope of delivery
1 PU

Note: Other sizes available on request.

Type		Content ml	Art.-No.
CG	143	143	362398
	250	250	362399
	275	275	434565
	420	420	434566
	730	730	362410
	1000	1000	363564
	2000	2000	362411

Technical data*	Value	Test standard
Processing time (pot life) 300 ml mixture at		
5 °C	24 minutes	DIN EN 60455-2
23 °C	21 minutes	
40 °C	16 minutes	
Hardness (PEN/Hardness)	57 1/10 mm	DIN ISO 2137
Resin - Viscosity at 23°C	2010 mPa x s	EN ISO 2555
Hardener - Viscosity at 23°C	7500 mPa x s	EN ISO 2555
Mix viscosity 5 minutes after mixing at 23°C	4200 mPa x s	EN ISO 2555
Density cured casting compound	0,92 g/cm³	EN ISO 1183-1
Resistance to electrical breakdown	> 25 kV/mm	DIN EN 60243-1
Volume resistance at 23°C	> 10^{14} Ωcm	DIN IEC 60093
Storage temperature	0 - 40 °C	DIN EN 60455-2
Operating temperature range	< 80 °C	DIN EN 60455-2

*The given values are typical values and not a specification

Cast resins



FG
Two-component PUR cast resin
flexible

Cast resin FG is suitable for repairing damaged cable-sheaths and for connecting flexible cables. It provides an excellent resistance to abrasion.

Characteristics
- Two-component PUR cast resin
- In practical and easy-to-use two-chamber bags
- Favourable flow properties
- High hydrolysis resistance
- Halogen-free
- Not harmful to the environment
- Resin remains highly flexible after hardening
- Flexibility ensures mechanical stress absorption
- No fracturing under electrical stress
- No fracturing under mechanical tension
- Excellent adhesion to all cable materials
- Low hardening temperature

Storage conditions/Shelf life
- In aluminium bag 24 months at ambient temperatures between 15 °C and 35 °C

Test standards
- DIN VDE 0278-631-1

Scope of delivery
1 PU

Note: Other sizes available on request.

Type		Content ml	Art.-No.
FG	464	464	125154

Technische Daten	Wert
Gießharzkomponenten: Flammpunkt im offenen Tiegel	> 200 °C
Reaktionsmittel: Flammpunkt im offenen Tiegel	> 200 °C
Verarbeitungszeit (Topfzeit) 300 ml Ansatz	
5 °C	21 Minuten
23 °C	17 Minuten
35 °C	12 Minuten
Max. Reaktionstemperatur	60 °C
Gesamtvolumenschwund bei der Härtung	6,0 %
Dichte	1,10 g/cm³
Härte	50 Shore A
Reißdehnung	250 %
Wasseraufnahme in warmen Wasser (42 d bei 50 °C)	600 mg
1 Minute Prüfspannung bei	
23 °C	> 20 kV
80 °C	> 10 kV
Dielektrischer Verlustfaktor bei	
23 °C und 50 Hz	0,20
50 °C und 50 Hz	1,40
Dielektrizitätskonstante bei	
23 °C und 50 Hz	7,4
50 °C und 50 Hz	8,9
Kriechstromfestigkeit	KA 3c

CAST RESIN TECHNOLOGY

Cast resins



UG
Two-component PUR cast resin
flame retardant

Cast resin UG meets the higher fire protection requirements and was specially developed for use in mining. It meets the requirements for cast resin moulding according to DIN VDE 0291 Section 2 on filling the cable sets or parts thereof for the following types of cables: Power cables with a nominal voltage up to 1 kV - GNH, power cables with a nominal voltage up to 10 kV - GMH and telecommunication and signal cables - GFH.

Characteristics
- Two-component PUR cast resin
- In practical and easy-to-use two-chamber bags
- Favourable flow properties
- Fast-hardening
- High hydrolysis resistance
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Halogen-free
- Flame retardant
- Not harmful to the environment
- Low smoke emission in case of fire
- No fracturing under electrical stress
- No fracturing under mechanical tension
- Excellent adhesion to all cable materials

Storage conditions/Shelf life
- In aluminium bag 24 months at ambient temperatures between 15 °C and 35 °C

Test standards
- Flame retardation in accordance with DIN VDE 0472 Section 804, test typ C
- Properties of insulation against flames in accordance with DIN VDE 0472 Section 814
- Corrosiveness of combustion gases in accordance with DIN VDE 0472 Section 813
- DIN VDE 0278-631-1

Scope of delivery
1 PU

Note: Other sizes available on request.

Type		Content ml	Art.-No.
UG	80	80	125286
	143	143	125287
	286	286	125288
	464	464	125289
	730	730	125290
	1000	1000	125291
	2000	2000	135533

→ Continued on the next page

Cast resins

→ Continuation

UG
Two-component PUR cast resin

Technical data	Value
Flash point of cast resin component (open cup) **Flash point of reactant (open cup)**	> 200 °C > 200 °C
Processing time (pot life) 300 ml mixture at **5 °C** **23 °C** **35 °C**	 23 minutes 16 minutes 12 minutes
max. Reaction temperature	78 °C
Total volume shrinkage during curing	2.5 %
Density	1.40 g/cm³
Impact strength	> 20 kJ/m²
Hardness	80 Shore D
Water absorption in warm water (42 d at 50 °C)	250 mg
Water absorption in cold water (24 h at 23 °C)	18 mg
Electrolytic corrosion	A 1.2
1 minute test voltage at **23 °C** **80 °C**	 38 kV 35 kV
Dielectric dissipation factor at **23 °C and 1kHz** **23 °C and 50 Hz** **50 °C and 50 Hz** **80 °C and 50 Hz**	 0.02 0.03 0.06 0.15
Dielectric constant at **23 °C and 1 kHz** **23 °C and 50 Hz** **50 °C and 50 Hz** **80 °C and 50 Hz**	 4.1 4.3 5.5 7.2
Tracking resistance	KA 3c

CAST RESIN TECHNOLOGY

Cast resins



UWR
Two-component PUR cast resin
low reactivity to water

Cast resin UWR has been specially developed for filling the cable joints exposed to high levels of humidity. It is characterised by its resistance to water in the liquid and in the solid state and is suitable for the encapsulation which are exposed to high levels of humidity for the following cable types: low voltage polymeric-insulated and mass-impregnated paper cables up to 1 kV

Characteristics
- Two-component PUR cast resin
- In practical and easy-to-use two-chamber bags
- Favourable flow properties
- High hydrolysis resistance
- Halogen-free
- Not harmful to the environment
- No fracturing under electrical stress
- No fracturing under mechanical tension
- Excellent adhesion to all cable materials

Storage conditions/Shelf life
- In aluminium bag 24 months at ambient temperatures between 15 °C and 35 °C

Test standards
- DIN VDE 0278-631-1

Scope of delivery
1 PU

Note: Other sizes available on request.

Type		Content ml	Art.-No.
UWR	143	143	139163
	464	464	148876
	1175	1175	137406
	1350	1350	137358
	2000	2000	137877

Technical data	Value
Flash point of cast resin component (open cup)	140 °C
Processing time (pot life) 300 ml mixture at **5 °C** **23 °C** **35 °C**	 30 minutes 15 minutes 8 minutes
max. Reaction temperature	88 °C
Total volume shrinkage during curing	4.2 %
Density	1,20 g/cm³
Impact strength	> 28 kJ/m²
Hardness	60 Shore D
Elongation at break	40 %
Effect of long-term warm storage on impact strength (38 d)	15 kJ/m²
Tear resistance	16 N/mm²
Tensile strength	15 N/mm²
Residual deformation (after 24 h)	0,4 %
Pressure required for 30 % deformation	27 N/mm²
Curing under water	< 10 ml glass
Hydrolysis resistance after water immersion (28 d at 70 °C)	passed
Physical structure	passed (homogeneous and bubble-free)

Cast resins



WG

Two-component PUR cast resin

removable

The unfilled thin two-component polyurethane cast resin (PUR) WG was particularly developed for cable joints. The hardened moulding material is permanently elastic and can be removed at any time with simple tools.

Characteristics
- Two-component PUR cast resin
- In practical and easy-to-use two-chamber bags
- Favourable flow properties
- High hydrolysis resistance
- Halogen-free
- Not harmful to the environment
- No fracturing under electrical stress
- Excellent adhesion to all cable materials
- Low hardening temperatur
- Permanently flexible after hardening

Storage conditions/Shelf life
- In aluminium bag 18 months at ambient temperatures between 15 °C and 35 °C

Note
- Connection requires mechanical tension relief due to the flexibility of the resin e.g. by means of a mechanically stable joint housing.

Test standards
- DIN VDE 0278-631-1

Scope of delivery
1 PU

Note: Other sizes available on request.

Type		Content ml	Art.-No.
WG	286	286	125202
	464	464	125203
	730	730	125204
	1000	1000	125205
	1150	1150	125206
	1500	1500	125207
	2000	2000	125208
	2200	2200	125209

Technical data	Value
Flash point of cast resin component (open cup) **Flash point of reactant (open cup)**	200 °C
Processing time (pot life) 300 ml mixture at **5 °C** **23 °C** **35 °C**	 33 minutes 24 minutes 21 minutes
max. Reaction temperature	60 °C
Total volume shrinkage during curing	1,2 %
Density	1,10 g/cm³
Hardness	44 Shore A
Elongation at break	60 %
Tensile strength	0,6 N/mm²
Tracking resistance	KA 3c
Water absorption in warm water (42 d at 50 °C)	450 mg
Electrolytic corrosion	A 1,2
1 minute test voltage at **23 °C** **80 °C**	 > 20 kV > 10 kV
Dielectric dissipation factor at 23 °C and 50 Hz	0,04
Dielectric constant at 23 °C and 50 Hz	5,7

CAST RESIN TECHNOLOGY

Cast resins



AMX-C

Automatic cast resin mixing system

with static mixer

Cartridge filled with two-component PUR cast resin for easy casting of connection and branch boxes and cast resin joints in a single operation without time-consuming preparation of cast resin components. Suitable for low voltage polymeric-insulated cables up to 1 kV; ideal for boxes with smaller volume.

Characteristics
- Mixing and casting in one step
- Less workload as no preparatory work such as kneading is necessary
- Safe and automatic mixing of cast resin components during application
- Favourable flow properties for clean application and precise dosing
- Individually dosable
- Reclosable cartridge for multiple use
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Halogen-free
- Not harmful to the environment
- No fracturing under electrical stress
- Excellent adhesion to all cable materials
- No fracturing under mechanical tension
- Low hardening temperature

Storage conditions/Shelf life
- 24 months at ambient temperatures between 15 °C and 35 °C
  Note on multiple use:
  Clean cartridge opening and (cartridge) cap after use.
  Replace static mixer.

Application/Suitability
- Indoor
- Outdoor
- Underground
- Connection and branch boxes
- Cast resin joints

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standard
- DIN VDE 0278-631-1

Scope of delivery
Cast resin cartridge, static mixer

Note: Static mixer can be ordered separately or as part of the AMX cleaning accessory kit (static mixer, cleaning tissue and gloves).

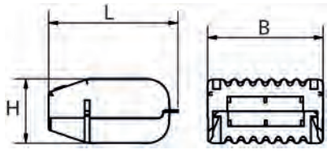
Optional accessory: Caulking gun AMX-HPT 310 (see Accessories)
Caulking gun AMX-HPT 1200 (see Accessories)
Accu caulking gun AMX-APT 310 (see Accessories)

Type		Content ml	Art.-No.
AMX-C265-EGK		265	292688
AMX-1200-EGK		1200	249007

Technical data	Value
Density	1.11 g/cm³
Hardness	50 Shore D
Tensile strength	13 N/mm²
Elongation at break	60 %
Viscosity (20 °C)	1700 mPa x s
Operating temperature range	-40 °C up to +105 °C



Dimensions



EASY-PROTECT
Gel box
with WAGO COMPACT Splicing Connectors

Gel filled housings for easy, fast and safe moisture protection of WAGO COMPACT Splicing Connectors

Characteristics
- Protects the splicing connector against moisture and water ingress according to IPX8
- VDE type-tested system according to EN 60998-2 for approval in conjunction with WAGO COMPACT Splicing Connectors 221
- Rigid, label-free and silicone-free gel
- UV-resistant housing, robust and re-accessible housing
- Fast application, easy mounting and direct commissioning
- Ready to use and immediately operational

Storage conditions/Shelf life
- Unlimited shelf life at ambient temperature between 0 °C und 40 °C

Application/Suitability
- Indoor and Outdoor
- Can be used in the low-voltage range without an additional housing
- Can be used in the low-voltage range with additional housing (double insulation / observe protection class II)

Note
- Not reusable

Voltage level
- U_0/U (U_m) 0,6/1 (1,2) kV

Test standards
- VDE type-tested system according to EN 60998-2

WAGO | inside

PLASTIC FREE COMPOSTABLE 100 % BIODEGRADABLE PACKAGING

Scope of delivery
pre-filled gel box, WAGO COMPACT Splicing Connector type 221

				Assignment with WAGO COMPACT Splicing Connectors, type 221					
Designation	**L mm**	**B mm**	**H mm**	**221-412**	**221-413**	**221-415**	**221-612**	**221-613**	**221-615**
Size 1	33,6	32,0	17,8	1	1	-	-	-	-
Size 2	33,6	45,9	17,8	2	-	1	-	-	-
Size 3	33,6	52,7	17,8	3	2	-	-	-	-
Size 4	40,1	38,0	21,3	-	-	-	1	1	-
Size 5	40,1	49,4	21,3	-	-	-	2	-	1
Size 6	40,1	66,4	21,3	-	-	-	3	2	-

Typ		Housing size	Type WAGO COMPACT Splicing Connector	Nominal cross section mm²	Number of Gel boxes	Art.-No.
EASY-PROTECT	112	1	1 x 221-412	0,14 f / 0,2 - 4 mm²	1	407858
	113	1	1 x 221-413		1	407859
	222	2	2 x 221-412		1	407860
	215	2	1 x 221-415		1	407861
	332	3	3 x 221-412		1	407862
	323	3	2 x 221-413		1	407863
	412	4	1 x 221-612		1	410356
	413	4	1 x 221-613	0,5 - 6 mm²	1	410357
	522	5	2 x 221-612		1	410358
	515	5	1 x 221-615		1	410359
	632	6	3 x 221-612		1	410360
	623	6	2 x 221-613		1	410361
EASY-PROTECT Bulk	113	1	12 x 221-413	0,14 f / 0,2 - 4 mm²	12	451511
	332	3	48 x 221-412		16	451512
	323	3	24 x 221-413		12	451513

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GEL TECHNOLOGY

Gelboxes

→ Continuation

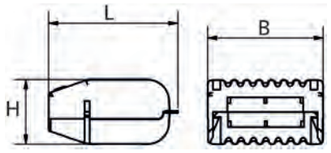
EASY-PROTECT
Gel box

Technical data	Value	Test standard
Physical properties		
IP protection class	IPX8	EN 60529
Storage period	Indefinite storage capacity	-
Housing colour	Black	-
Housing material	Polypropylene	-
Closure type	Latching	-
Wiring direction	One-sided	-
Gel colour	Translucent amber	-
Gel material	Polyurethan	-
Thermodynamic properties		
Continuous service temperature	105 °C	EN 60998-2
Ambient temperature (operation)	85°C according to T85 marking	EN 60998-2
Working temperature / Storage temperature	0 - 40 °C	
Flammability class housing	V2*	UL 94
Electrical properties**		
Voltage range	450 V	EN 60998-2
Rated surge voltage	4 kV	EN 60998-2
Rated current	32 A respectively 41 A (WAGO COMPACT Splicing Connectors)	EN 60998-2
Resistance to electrical breakdown gel	≥ 15 kV / mm	EN 60243-1

* Approximately comparable to the glow wire test according to EN 60695
** Double insulation / observe protection class II for low voltage



Dimensions



EASY-PROTECT INLINE

Gel box

with WAGO COMPACT-Inline Splicing connectors with lever

Gel filled housings for easy, fast and safe moisture protection of WAGO COMPACT-Inline Splicing Connectors with lever

Characteristics
- Protects the splicing connector against moisture and water ingress according to IPX8
- VDE type-tested system according to EN 60998-2 for approval in conjunction with WAGO COMPACT-Inline Splicing Connectors with lever type 221
- Rigid, label-free and silicone-free gel
- UV-resistant housing, robust and re-accessible housing
- Fast application, easy mounting and direct commissioning
- Ready to use and immediately operational

Storage conditions/Shelf life
- Unlimited shelf life at ambient temperature between 0 °C und 40 °C

Application/Suitability
- Indoor and Outdoor
- Can be used in the low-voltage range without an additional housing
- Can be used in the low-voltage range with additional housing (double insulation / observe protection class II)

Note
- Not reusable

Voltage level
- U0/U (Um) 0,6/1 (1,2) kV

Test standards
- VDE type-tested system according to EN 60998-2

WAGO inside

Scope of delivery
pre-filled gel box, WAGO COMPACT-Inline Splicing Connector with lever type 221

Designation	L mm	B mm	H mm	Assignment with WAGO COMPACT-Inline Splicing Connectors with lever, type 221: 221-2411
Size 2/4	32,7	56,9	17,8	2
Size 3/4	41,7	56,9	17,8	3
Size 5/4	60,7	56,9	17,8	5

PLASTIC FREE – COMPOSTABLE – 100 % BIODEGRADABLE – PACKAGING

Type		L mm	B mm	H mm	Housing size	Type WAGO COMPACT-Inline Splicing Connector with lever	Nominal cross section mm²	Number of gelboxes	Art.-No.
EASY-PROTECT Inline	2/4	32,7	56,9	17,8	2	2 x 221 - 2411	0,2 - 4 0,2 - 2,5*	1	449749
	3/4	41,7	56,9	17,8	3	3 x 221 - 2411		1	449750
	5/4**	60,7	56,9	17,8	5	5 x 221 - 2411		1	449751
EASY-PROTECT Inline Bulk	2/4	32,7	56,9	17,8	2	24 x 221 - 2411	0,2 - 4 0,2 - 2,5*	12	457772
	3/4	41,7	56,9	17,8	3	36 x 221 - 2411		12	457773
	5/4**	60,7	56,9	17,8	5	60 x 221 - 2411		12	457774

* with stranded conductors
** Announced by the end of 2024

→ Continued on the next page

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GEL TECHNOLOGY

Gelboxes

→ Continuation

EASY-PROTECT INLINE

Gel box

Technical data	Value	Test standard
Physical properties		
IP protection class	IPX8	EN 60529
Storage period	Indefinite storage capacity	-
Housing colour	Black	-
Housing material	Polypropylene	-
Closure type	Latching	-
Wiring direction	One-sided	-
Gel colour	Translucent amber	-
Gel material	Polyurethan	-
Thermodynamic properties		
Continuous service temperature	105 °C	EN 60998-2
Ambient temperature (operation)	85°C according to T85 marking	EN 60998-2
Working temperature / Storage temperature	0 - 40 °C	
Flammability class housing	V2*	UL 94
Electrical properties**		
Voltage range	450 V	EN 60998-2
Rated surge voltage	4 kV	EN 60998-2
Rated current	32 A respectively 41 A (WAGO COMPACT Splicing Connectors)	EN 60998-2
Resistance to electrical breakdown gel	≥ 15 kV / mm	EN 60243-1

* Approximately comparable to the glow wire test according to EN 60695
** Double insulation / observe protection class II for low voltage

Straight-through joints



EASYCELL® COMPACT
Gel straight-through joint
with connection block

Universally suitable for connecting 2-core polymeric cables (e.g. NYM-J,H03VVF, H05RR-F, HO7RN-F), cross section range from 0.5 mm² to 1.5 mm². Suitable for aluminium and copper conductors.

Characteristics
- Connection block completely sealed by gel - IP 68
- Re-accessible and ready for immediate operation
- New snap closing system, no cable ties required
- Connection block does not require any tool
- High-quality shockproof plastic shells, flame retardant and UV-resistant
- Quick, safe and easy assembly

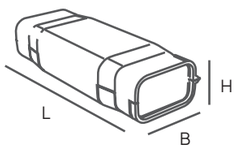
Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground without loads
- Cable ducts

Voltage level
- 450 V, 24 A

Test standards
- VDE type-tested system according to EN IEC 60670-1

Dimensions



Scope of delivery
Gel straight-through joint, connection block, assembly instruction

Type		L mm	B mm	H mm	Cable-Ø mm	PU	Polymeric cable unarmoured 2x Nominal cross section per conductor mm²	Art.-No.
EASYCELL® COMPACT	1C-V	68	24	22	4,5 - 6,5	24	0,5 - 1,5	472575

Straight-through joints



EASYCELL® EASY...V
Gel straight-through joint
with connection block

Universally suitable for connecting all polymeric cables and conductors (e.g. N(A) YY, NYM, H05), cross section range from 1.5 mm² to 25 mm². Suitable for aluminium and copper conductors.

Characteristics
- Connector area completely sealed by gel
- Re-accessible and ready for immediate operation
- Multi range one-piece connection block
- High-quality shockproof plastic shells, flame retardant and UV-resistant
- Quick and easy assembly

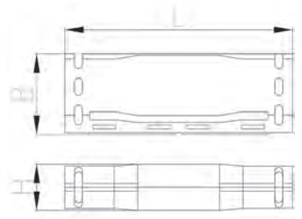
Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water (according to test standard)

Voltage level
- U0/U (Um) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393
- DIN EN 60695-2-11

Dimensions



Scope of delivery
EASY 2 V: Gel straight-through joint, lustre terminal, cable ties, assembly instruction
EASY 3 V - 5 V: Gel straight-through joint, connection block, allen key, cable ties, assembly instruction

Optional accessory: EASYCELL® Strain relief, available for connecting joints from 6 mm² to 25 mm² (EASY 4 V and EASY 5 V)

Type		L mm	B mm	H mm	Polymeric cable unarmoured 3x	4x	5x Nominal cross section per conductor mm²	Art.-No.
EASY	2 V	86	47	27	1.5 - 2.5			389676
	3 V	146	55	35	1.5 - 6	1.5 - 6	1.5 - 6	389677
	4 V	180	69	40	6 - 16	6 - 16	6 - 16	389678
	5 V	240	75	44	16 - 25	16 - 25	16 - 25	389679



Straight-through joints



EASYCELL® EASY...

Gel straight-through joint

without connection block

Universally suitable for connecting all polymeric cables and conductors (e.g. N(A)YY, NYM, H05), cross section range from 1.5 mm² to 25 mm². Suitable for aluminium and copper conductors.

Characteristics
- Connector area completely sealed by gel
- Re-accessible and ready for immediate operation
- Multiple type of connectors can be used, e. g. terminal strips, push wire connectors, mechanical blocks and c-crimp connectors
- High-quality shockproof plastic shells,flame retardant and UV-resistant
- Quick and easy assembly

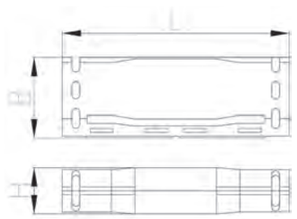
Application/Suitability
- Indoor
- Outdoor
- Underground

Voltage level
- U0/U (Um) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393
- DIN EN 60695-2-11

Storage conditions/Shelf life
- Unlimited shelf life

Dimensions



Scope of delivery
EASY 2: Gel straight-through joint, cable ties, assembly instructions
EASY 3 - 5: Gel straight-through joint, spacer, cable ties, assembly instruction

Note: For connections of up to 5-core polymeric cables we recommend to use standard EASYCELL® gel straight through joints (EASY ... V) with connection block.

Type		L mm	B mm	H mm	Cable-Ø mm	Polymeric cable unarmoured 3x	Polymeric cable unarmoured 4x	Art.-No.
EASY	2	86	47	27	11 - 13	1.5 - 2.5		360366
	3	146	55	35	11 - 19	1.5 - 6	1.5 - 6	360368
	4	180	69	40	15 - 23	6 - 16	6 - 16	360369
	5	240	75	44	19 - 28	16 - 25	16 - 25	360400

GEL TECHNOLOGY



Straight-through joints



EASYCELL®

Strain relief

for gel straight-through joints EASY 4 V and EASY 5 V

For the application with high mechanical loads and forces.

Characteristics
- Quick and easy assembly

Application/Suitability
- Mechanical protection

Dimensions

Scope of delivery
Strain relief

Type	Art.-No.
Strain relief	310553

Branch joints



EASYCELL® EASY...V

Gel branch joint
with branch-off block

Universally applicable for branching all polymeric cables and conductors (e.g. N(A) YY, NYM, H05) cross section range from 6 mm² to 25 mm². Suitable for aluminium and copper conductors.

Characteristics
- Connector area completely sealed by gel
- Re-accessible and ready for immediate operation
- Multi range one-piece branch-off block
- High-quality shockproof plastic shells, flame retardant and UV-resistant
- Quick and easy assembly

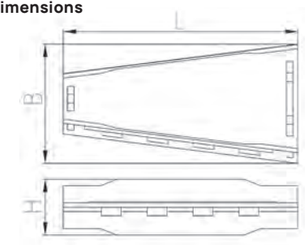
Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water (according to test standard)

Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393
- DIN EN 60695-2-11

Dimensions



Scope of delivery
Gel branch joint, branch-off block, allen key, cable ties, assembly instruction

Note: Separable, main cable must not be cut.

Type		L mm	B mm	H mm	Polymeric cable unarmoured 3x Nominal cross section per conductor mm² Main cable	Branch cable	4x Main cable	Branch cable	5x Main cable	Branch cable	Art.-No.
EASY	6 V	220	110	53	6	2,5 - 6	6	2,5 - 6	6	2,5 - 6	371166
	7 V	260	130	65	16 - 25	2,5 - 25	16 - 25	2,5 - 25	16 - 25	2,5 - 25	371167

GEL TECHNOLOGY

Casting compounds



EXPRESS+ GEL

Two-component gel based on silicon
Only 15 seconds of mixing time for extremely fast casting

Innovative bottle with 2-component mixing compound for quick and permanent protection of electrical products. Very fast curring time with colour changing indication.

Characteristics
- Innovative mixing process
- The fastest mixing compound available on the market
- Colour change from white to light blue
- High electrical insulation value
- Non-toxic
- Easy removable
- Halogen free
- Seals and protects all electrical installations

Storage conditions/Shelf life
- Unlimited shelf life at ambient temperatures between 5 °C and 25°C

Application/Suitability
- Indoor
- Outdoor
- Protection against moisture (IP 68 protection class in suitable housing, according to EN 60529)
- For electrical systems up to 1 kV

Scope of delivery
EXPRESS+ GEL patented mixing bottle

Type		Content ml	Art.-No.
EXPRESS+ GEL	300	300	461305
	600	600	461306
	900	900	461307

Technical data	Value	Test standard
Viscosity (23 °C)	288 mPa x s	ISO 2555
Pot life (23 °C)	8 min	EN 60684-2
Dielectric strength	≥ 18 kV/mm	EN 60243-1
Specific volume resistivity	1.51 x 10^{14} Ω x cm	HD 429
Mixing ratio	1 : 1	
Working temperature	5 °C up to 30 °C	
Temperature resistance	-40 °C up to 150 °C	

Casting compounds



POWER GEL

Two-component gel based on silicon
to cast branch and connection boxes

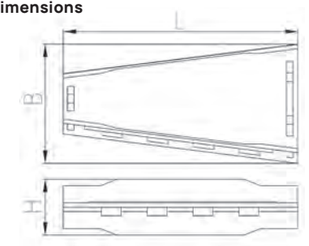
Individual portioned two-component sealing compound in bottles, measuring cup and spatula, all-in-one solution for a reliable protection of electrical and electronic components.

Characteristics
- Individual portioned
- Reclosable bottles for multiple use
- Easy casting thanks to measuring cup
- Complete system
- Non-labelled and non-toxic
- Vibration damping
- Removable
- Flexible
- Halogen free
- UV rays stable
- Seals and protects all electrical installations

Storage conditions/Shelf life
- Unlimited shelf life at ambient temperatures between 0 °C and 40 °C

Application/Suitability
- Indoor (also with high humidity levels)
- Outdoor
- Branch and connection boxes
- Protection against moisture (IP 68 protection class in a suitable box)
- For electrical systems up to 1 kV

Dimensions



Scope of delivery
POWER GEL component A and component B in bottles, measuring cup and spatula

Type		Content ml	Art.-No.
POWER GEL	400	400	335120
	1000	1000	335121

Technical data	Value	Test standard
Viscosity (23 °C)	1000 mPa x s	ISO 2555
Pot life (23 °C)	15 min	EN 60684-2
Dielectric strength	≥ 15 kV/mm	EN 60243-1
Specific volume resistivity	≥ 2 x 10^{14} Ω x cm	HD 429
Mixing ratio	1 : 1	
Working temperature	15 °C up to 30 °C	
Temperature resistance	-40 °C up to 150 °C	

Casting compounds



JUMBO GEL

Two-component gel based on silicon
cost-effective casting for big quantities

Transparent and economic two-component sealing compound in re-closable cans for serial casting and big branch and connection boxes.

Characteristics
- Special cost-effective and efficient
- Reclosable cans for multiple use
- Transparent
- Mix in standard bucket
- Non-labelled and non-toxic
- Vibration damping
- Removable
- Flexible
- Halogen free
- UV rays stable
- Seals and protects all electrical installations

Storage conditions/Shelf life
- Unlimited shelf life at ambient temperatures between 0 °C and 40 °C

Application/Suitability
- Indoor (also with high humidity level)
- Outdoor
- Serial casting and big boxes
- Protection against moisture (IP 68 protection class in a suitable box)
- For electrical systems up to 1 kV

Scope of delivery
JUMBO GEL component A and component B in cans

Type		Content ml	Art.-No.
JUMBO GEL	2000	2000	364306
	5000	5000	364307
	10000	10000	364308
ZS-JUMBO GEL	12000	Accessory kit (12000 ml bucket and spatula)	366513

Technical data	Value	Test standard
Viscosity (23 °C)	1000 mPa x s	ISO 2555
Pot life (23 °C)	17 min	EN 60684-2
Dielectric strength	≥ 12 kV/mm	EN 60243-1
Specific volume resistivity	≥ 2 x 10^{14} Ω x cm	HD 429
Mixing ratio	1 : 1	
Working temperature	15 °C up to 30 °C	
Temperature resistance	-25 °C up to 125 °C	

Casting compounds



CLEAR GEL

Two-component gel based on silicon
to protect electrical components and LEDs

Sealing, high-transparent two-component sealing compound for a reliable protection to electrical components. Suitable for opto-electronic applications like e.g. sealing of LEDs and lighting installations

Characteristics
- Permanently high transparent
- In practical and easy-to-use two-chamber bags
- Favourable flow properties
- Application-oriented variants
- Non-labelled and non-toxic
- Vibration damping
- Removable
- Flexible
- Halogen free
- UV rays stable
- Seals and protects all electrical installations

Storage conditions/Shelf life
- 24 months at ambient temperatures between 0 °C and 40 °C

Application/Suitability
- Indoor (also with high humidity level)
- Outdoor
- Branch and connection boxes
- Protection against moisture (IP 68 protection class in a suitable box)
- For electrical systems up to 1 kV

Scope of delivery
CLEAR GEL component A and component B in two-chamber bags

Type		Content ml	Art.-No.
CLEAR GEL	150	150	364032
	250	250	364033
	350	350	364034
	500	500	364035

Technical data	Value	Test standard
Viscosity (23 °C)	1000 mPa x s	ISO 2555
Pot life (23 °C)	15 min	EN 60684-2
Dielectric strength	≥ 15 kV/mm	EN 60243-1
Specific volume resistivity	≥ 2 x 10^{14} Ω x cm	HD 429
Mixing ratio	1 : 1	
Working temperature	15 °C up to 30 °C	
Temperature resistance	-40 °C up to 150 °C	

GEL TECHNOLOGY

Casting compounds



SUPRA GEL

Two-component gel based on silicon
ready-to-use, delivered with static mixer for small volume boxes
Standard cartridge, filled with two-component sealing compound. User friendly casting for branch and connection boxes in one-operation without time consuming.

Characteristics
- Ready-to-use
- Mixing and casting in one step
- Clean application and precise dosing
- Reclosable cartridge for multiple use
- Favourable flow properties
- Non-labelled and non-toxic
- Removable
- Flexible
- Halogen free
- UV rays stable
- Seals and protects all electrical installations

Storage conditions/Shelf life
- 24 months at ambient temperatures between 0 °C and 30 °C

Application/Suitability
- Indoor (also with high humidity level)
- Outdoor
- Branch and connection boxes
- Protection against moisture (IP 68 protection class in a suitable box)
- For electrical systems up to 1 kV

Scope of delivery
SUPRA GEL component A and component B in a cartridge with static mixer

Type		Content ml	Art.-No.
SUPRA GEL		250	364036
Static mixer	SUPRA GEL		366780

Technical data	Value	Test standard
Viscosity (23 °C)	1000 mPa x s	ISO 2555
Pot life (23 °C)	15 min	EN 60684-2
Dielectric strength	≥ 15 kV/mm	EN 60243-1
Specific volume resistivity	≥ 2 x 10^{14} Ω x cm	HD 429
Mixing ratio	1 : 1	
Working temperature	15 °C up to 30 °C	
Temperature resistance	-40 °C up to 150 °C	

GEL TECHNOLOGY

Casting compounds



SOFT GEL
One-component gel based on silicon

ready-to-use, suitable for a wide range of applications

Standard cartridge, filled with extremely sticky one-component sealing compound suitable for electrical insulation and protection against corrosion, also recommended for temporal solutions.

Characteristics
- Ready-to-use
- Very sticky, does not drip
- Re-accessible
- Non-labelled and non-toxic
- Reusable
- Halogen free
- UV rays stable

Application/Suitability
- Indoor
- Outdoor
- Plug-in protection
- Protection against corrosion and insects
- For electrical systems up to 1 kV

Storage conditions/Shelf life
- Unlimited shelf life at ambient temperatures between 0 °C and 40 °C
- The cartridge can be stored open

Scope of delivery
SOFT GEL in a cartridge with nozzle

Type		Content ml	Art.-No.
SOFT GEL		310	364723

Technical data	Value	Test standard
Viscosity (23 °C)	40000 mPa x s	
Pot life (23 °C)	-	EN 60684-2
Dielectric strength	≥ 10 kV/mm	EN 60243-1
Specific volume resistivity	≥ 2 x 10^{14} Ω x cm	HD 429
Mixing ratio	-	
Working temperature	0 °C up to 40 °C	
Temperature resistance	-40 °C up to 150 °C	

CABLE SETS FOR UNSCREENED POLYMERIC CABLES

Straight-through joints



SMH3...MS6
3-core straight-through joint

for armoured 3-core polymeric cables without semi-conductive layer up to 7.2 kV

Straight-through joints SMH3...MS6 are suitable for armoured 3-core polymeric-insulated cables (PVC, PE, XLPE, EPR) without an outer semi-conductive layer. They allow the connection of cables with different cross sections and conductor materials even with different cable design. Suitable for compression connectors.

Characteristics
- Compact dimensions
- Wide cross-section range
- Ready for immediate operation
- High mechanical strength
- Quick, safe and easy assembly

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Storage conditions/Shelf life
- Unlimited shelf life

Voltage level
- U0/U (Um) 3.6/6 (7.2) kV - 3.8/6.6 (7.2) kV

Dimensions

Scope of delivery
Thick wall heat shrinkable outer tube with hot melt adhesive, inner sheath sleeve, copper braid tube, pressure spring, cleaning tissue, emery cloth, assembly instructions

Type		L mm	max. Connector-Ø mm	max. Connector length mm	Polymeric cable armoured: Nominal cross section mm²	Art.-No.
U_0/U (U_m) 3.6/6 (7.2) kV - 3.8/6.6 (7.2) kV						
SMH3	25-70 MS6	850	20	110	25 - 70	145630
	50-150 MS6	1000	25	135	50 - 150	145633
	120-300 MS6	1200	40	150	120 - 300	145635



SMHSV3-1...MS6

Straight-through joint

with screw connectors, for connecting from 3-core with three 1-core polymeric cables up to 7.2 kV

Straight-through joints SMHSV3-1...MS6 are suitable for connecting 3-core polymeric cables (PVC, PE, XLPE, EPR) without outer semi-conductive layer with three 1-core polymeric cables (PVC, PE, XLPE, EPR). They allow the connection of cables with different cross sections, conductive materials and structure. With screw connectors.

Characteristics
- Compact dimensions
- Wide cross-section range
- Ready for immediate operation
- High mechanical strength
- Quick, safe and easy assembly
- Suitable for a wide range of applications due to integrated screw connector

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level
- U0/U (Um) 3.6/6 (7.2) kV - 3.8/6.6 (7.2) kV

Storage conditions/Shelf life
- Unlimited shelf life

Dimensions



Scope of delivery

Thick wall heat shrinkable outer tube with hot melt adhesive, inner sheath sleeve, copper braid tape, screw connectors, assembly material, assembly instructions

Type		L mm	Polymeric cable unarmoured / armoured Nominal cross section mm²	Art.-No.
U_0/U (U_m) 3.6/6 (7.2) kV - 3.8/6.6 (7.2) kV				
SMHSV3-1	50-150 MS6	750	50 - 150	311594
	120-240 MS6	800	120 - 240	369133

CABLE SETS FOR UNSCREENED POLYMERIC CABLES

Straight-through joints



M...MS6 EG

3-core straight-through joint

for armoured 3-core polymeric cables without semi-conductive layer up to 7.2 kV

Straight-through joints M...MS6 are suitable for armoured 3-core polymeric-insulated cables (PVC, PE, XLPE, EPR) without an outer semi-conductive layer. EG cast resin ensure good mechanical and moisture protection (also for automotive industry).

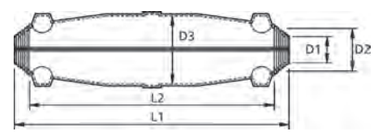
Characteristics
- Resistant to chemical agents
- Longitudinally and transversely watertight
- High mechanical strength
- Quick, safe and easy assembly

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Storage conditions/Shelf life
- EG Cast resin up to 40 months

Voltage level
- U0/U (Um) 3.6/6 (7.2) kV - 3.8/6.6 (7.2) kV

Dimensions



Scope of delivery

Transparent plastic shells, PUR type EG cast resin, spacer sleeve, copper braid tube, hose clamp, fill and air-release funnels, PVC insulation tape, protective gloves,
assembly instructions

Note: Compression connectors should be ordered separately

Type		L1 mm	L2 mm	D1 mm	D2 mm	D3 mm	Cable-Ø mm	Polymeric insulated cable armoured Nominal cross section mm²	Polymeric insulated cable armoured with concentric conductor Nominal cross section mm²	Art.-No.
U_0/U (U_m) 3,6/6 (7,2) kV - 3,8/6,6 (7,2) kV										
M4	MS6 EG	432	384	29	52	90	29 - 55	25 - 70	25/25 - 50/50	124318
M5	MS6 EG	550	503	40	62	110	42 - 65	95 - 120	70/70 - 95/95	124319
M6	MS6 EG	660	600	50	78	145	50 - 78	150 - 240	120/120 - 185/185	124320

Straight-through joints



SEEV
3-core indoor cable termination
for armoured 3-core polymeric cables without semi-conductive layer up to 7.2 kV

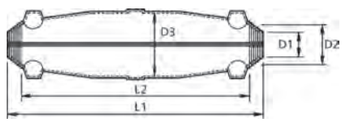
Cable terminations SEEV for indoor applications are suitable to cover armoured 3-core polymeric cables (PVC, PE, XLPE, EPR) without semi-conductive layer. Suitable for compression cable lugs.

Characteristics
- Resistant to chemical agents
- Longitudinally and transversely watertight
- High mechanical strength
- Quick, safe and easy assembly

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level
- U0/U (Um) 3.6/6 (7.2) kV - 3.8/6.6 (7.2) kV

Dimensions



Scope of delivery
Transparent plastic shells, PUR type UG cast resin, spacer sleeve, copper braid tube, hose clamp, fill and air-release funnels, PVC insulation tape, protective gloves,
assembly instructions

Note: Compression connectors should be ordered separately

Type		L1 mm	L2 mm	D1 mm	D2 mm	D3 mm	Cable-Ø mm	Polymeric insulated cable armoured: Nominal cross section mm²	Polymeric insulated cable armoured with concentric conductor: Nominal cross section mm²	Art.-No.
$U_0/U (U_m)$ 3,6/6 (7,2) kV - 3,8/6,6 (7,2) kV										
M4	MS6 UG	432	384	29	52	90	29 - 55	25 - 70	25/25 - 50/50	124359
M5	MS6 UG	550	503	40	62	110	42 - 65	95 - 120	70/70 - 95/95	124360
M6	MS6 UG	660	600	50	78	145	50 - 78	150 - 240	120/120 - 185/185	124361

Cable terminations



M...MS6 EG
3-core straight-through joint
for armoured 3-core polymeric cables without semi-conductive layer up to 7.2 kV

Straight-through joints M...MS6 are suitable for armoured 3-core polymeric-insulated cables (PVC, PE, XLPE, EPR) without an outer semi-conductive layer. EG cast resin ensure good mechanical and moisture protection (also for automotive industry).

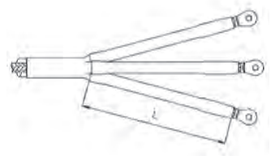
Characteristics
- Compact dimensions
- Wide conductor and cross-section range
- High mechanical strength
- Quick, safe and easy assembly

Application/Suitability
- Indoor

Voltage level
- U0/U (Um) 3.6/6 (7.2) kV - 3.8/6.6 (7.2) kV

Storage conditions/Shelf life
- Unlimited shelf life

Dimensions



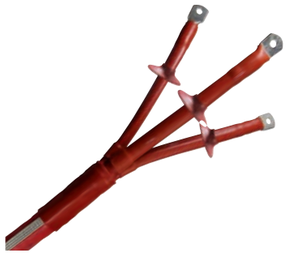
Scope of delivery
Core insulating tubes (tracking resistant), spreader cap, filling tape, earthing accessories, sealing tape, assembly instructions

Optional accessory: Cable lugs (see Connecting technology)

Type		L mm	Polymeric cable armoured: Nominal cross section mm²	Art.-No.
$U_0/U (U_m)$ 3.6/6 (7.2) kV - 3.8/6.6 (7.2) kV				
SEEV	16-50	280	16 - 50	145458
	70-120	280	70 - 120	145461
	150-240	280	150 - 240	145464

CABLE SETS FOR UNSCREENED POLYMERIC CABLES

Cable terminations



SEEV-F

3-core outdoor cable termination

for armoured 3-core polymeric cables without semi-conductive layer up to 7.2 kV

Cable terminations SEEV-F for outdoor applications are suitable to cover armoured 3-core polymeric cables (PVC, PE, XLPE, EPR) without semi-conductive layer. Suitable for compression cable lugs.

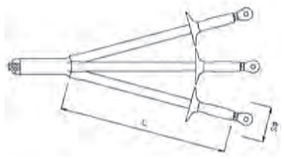
Characteristics
- Compact dimensions
- Wide conductor and cross-section range
- High mechanical strength
- Quick, safe and easy assembly

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Outdoor

Voltage level
- U0/U (Um) 3.6/6 (7.2) kV - 3.8/6.6 (7.2) kV

Dimensions



Ø S = Diameter of cable shed

Scope of delivery
Core insulating tubes (tracking resistant), spreader cap (tracking resistant), filling tape, silicone sheds, earthing accessories, sealing tape, assembly instructions

Optional accessory: Cable lugs (see Connecting technology)

Type		L mm	Ø S mm	Polymeric cable armoured Nominal cross section mm²	Art.-No.
U_0/U (U_m) 3.6/6 (7.2) kV - 3.8/6.6 (7.2) kV					
SEEV-F	16-50	400	80	16 - 50	148152
	70-120	400	85	70 - 120	182390
	150-240	400	85	150 - 240	148153

CABLE SETS FOR SCREENED POLYMERIC CABLES

Straight-through joints for 1-core cables



CHMSV

1-core straight-through joint

with screw connector, for all 1-core polymeric cables

Hybrid straight-through joints CHMSV are suitable for all 1-core polymeric-insulated cables (PVC, PE, XLPE, EPR). They allow the connection of cables with different cross sections and conductor materials even with different cable designs concerning the semi-conductive layer (graphite-coated, removable or strippable) and screen design (copper wire or tape screen). With screw connector.

Characteristics
- Reliable stress control due to flexible silicone stress control elements
- For both copper and aluminium conductors
- For all cables with copper wire or tape screen
- Wide conductor and cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation
- Suitable for a wide range of applications due to integrated screw connector

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level
- U0/U (Um) 6/10 (12) kV - 19/33 (36) kV

Note
- 12 kV joints must be used for 7.2 kV cables. (Check minimum diameter over conductor insulation.)

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Dimensions



Scope of delivery
Thick wall heat shrinkable insulation tubes, thick wall heat shrinkable outer tube with hot melt adhesive, silicone stress control elements, copper braid tube, pressure springs, innovative screw connector with conductive cover, field control filling tape (blue), assembly material, assembly instructions

Note: Other straight-through joints available on request.

Type		L mm	min. Ø over core insulation after removal of the outer conductive layer mm	12 kV	17.5 kV	24 kV	36 kV	Art.-No.
				Nominal cross section mm²				
U_0/U (U_m) 6/10 (12) kV - 6.35/11 (12) kV								
CHMSV 12kV	25-95	600	12.6	25 - 95				258130
	70-150	600	14.7	70 - 150				258131
	95-240	600	17.3	95 - 240				258132
	240-400	650	23.1	240 - 400				258133
U_0/U (U_m) 8.7/15 (17.5) kV								
CHMSV 17kV	25-95	600	14.7		25 - 95			258135
	70-150	600	18.0		70 - 150			258136
	95-240	600	19.9		95 - 240			258137
	240-400	700	24.0		240 - 400			258138
U_0/U (U_m) 12/20 (24) kV - 12.7/22 (24) kV								
CHMSV 24kV	16-95	600	14.7			16 - 95		258140
	50-150	600	17.3			50 - 150		258141
	95-240	600	19.9			95 - 240		258142
	240-400	700	27.3			240 - 400		258143
U_0/U (U_m) 18/30 (36) kV - 19/33 (36) kV								
CHMSV 36kV	50-150	600	20.9				50 - 150	258144
	95-240	600	24.2				95 - 240	258145
	240-400	700	32.0				240 - 400	258146

Straight-through joints for 1-core cables



CHRMSV
1-core repair straight-through joint
with screw connector, for polymeric cables

Hybrid-repair-straight-through joints CHRMSV are suitable for all 1-core polymeric-insulated cables (PVC, PE, XLPE, EPR). They enable the repair of damaged cables without the use of separate cable sections. With screw connector.

Characteristics
- Reliable stress control due to flexible silicone stress control elements
- For both copper and aluminium conductors
- For all cables with copper wire or tape screen
- Wide conductor and cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation
- Suitable for a wide range of applications due to integrated screw connector

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level
- U0/U (Um)12/20 (24) kV - 12.7/22 (24) kV

Note
- 12 kV joints must be used for 7.2 kV cables. (Check minimum diameter over conductor insulation.)

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Dimensions



Scope of delivery
Thick wall heat shrinkable insulation tubes, thick wall heat shrinkable outer tube with hot melt adhesive, silicone stress control elements, copper braid tube, pressure springs, innovative repair screw connector with conductive cover, field control filling tape (blue), assembly material, assembly instructions

Type		L mm	Connector length mm	min. Ø over core insulation after removal of the outer conductive layer mm	12 kV	17,5 kV	24 kV	Art.-No.
					Nominal cross section mm²			
U_0/U (U_m) 12/20 (24) kV - 1.,7/22 (24) kV								
CHRMSV 24kV	95-240	1000	440	19,9	150 - 240	120 - 240	95 - 240	304741

CABLE SETS FOR SCREENED POLYMERIC CABLES

Straight-through joints for 1-core cables



CHM...V
1-core straight-through joint
with screw connector, for all 1-core polymeric cables

Hybrid straight-through joints CHM...V are suitable for all 1-core polymeric-insulated cables (PVC, PE, XLPE, EPR). They allow the connection of cables with different cross sections and conductor materials even with different cable designs concerning the semi-conductive layer (graphite-coated, removable or strippable) and screen design (copper wire or tape screen). With screw connector.

Characteristics
- Reliable stress control due to flexible silicone stress control elements
- For both copper and aluminium conductors
- For all cables with copper wire or tape screen
- Wide conductor and cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation
- Suitable for a wide range of applications due to screw connector

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level
- U_0/U (U_m) 12/20 (24) kV - 19/33 (36) kV

Note
- 12 kV joints must be used for 7.2 kV cables. (Check minimum diameter over conductor insulation.)

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Dimensions



Scope of delivery
Thick wall heat shrinkable insulation tubes, thick wall heat shrinkable outer tube with hot melt adhesive, silicone stress control elements, copper braid tube, pressure springs, screw connector, field control filling tape (blue), assembly material, assembly instructions

Type		L mm	min. Ø over core insulation after removal of the outer conductive layer mm	12 kV	17.5 kV	24 kV	36 kV	Art.-No.
				Nominal cross section mm²				
U_0/U (U_m) 6/10 (12) kV - 6,35/11 (12) kV								
CHM 12kV	400-630 V	750	27,3	400 - 630				387124
U_0/U (U_m) 12/20 (24) kV - 12.7/22 (24) kV								
CHM 24kV	400-630 V	750	32.7	630	500 - 630	400 - 630		347954
	630-1000 V	750	36.8	800 - 1000	630 - 1000	630 - 1000		308543
	800 V	1000	36.8	800	800	800		331184
U_0/U (U_m) 18/30 (36) kV - 19/33 (36) kV								
CHM 36kV	400-630 V	750	38.5				400 - 630	347081
	630-1000 V	750	38.5				630 - 1000	347118

Straight-through joints for 1-core cables



CHM...V
1-core straight-through joint
with screw connector, for all 1-core polymeric cables

Hybrid straight-through joints CHM...V are suitable for all 1-core polymeric-insulated cables (PVC, PE, XLPE, EPR). They allow the connection of cables with different cross sections and conductor materials even with different cable designs concerning the semi-conductive layer (graphite-coated, removable or strippable) and screen design (copper wire or tape screen). With screw connector.

Characteristics
- Reliable stress control due to flexible silicone stress control elements
- For both copper and aluminium conductors
- For all cables with copper wire or tape screen
- Wide conductor and cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation
- Suitable for a wide range of applications due to screw connector

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level
- U_0/U (U_m) 20,8/36 (42) kV

Test standards
- CENELEC HD 629.1 S3

Dimensions



Scope of delivery
Thick wall heat shrinkable insulation tubes, thick wall heat shrinkable outer tube with hot melt adhesive, silicone stress control elements, copper braid tube, pressure springs, screw connector, field control filling tape, assembly material, assembly instructions

Type		L mm	min. - max. Ø over core insulation after removal of the outer conductive layer mm	42 kV Nominal cross section mm²	Art.-No.
U_0/U (U_m) 20,8/36 (42) kV					
CHM 42kV	50-150 V	700	25,5 - 33,0	50-150	421451
	95-240 V	700	28,5 - 36,9	95-240	414884
	185-400 V	700	33,0 - 42,1	185-400	421453
	400-630 V	850	40,5 - 48,7	400-630	421454

CABLE SETS FOR SCREENED POLYMERIC CABLES

Straight-through joints for 1-core cables



CHM
1-core straight-through joint
for all 1-core polymeric cables

Hybrid straight-through joints CHM are suitable for all 1-core polymeric-insulated cables (PVC, PE, XLPE, EPR). They allow the connection of cables with different cross sections and conductor materials even with different cable designs concerning the semi-conductive layer (graphite-coated, removable or strippable) and screen design (copper wire or tape screen). Suitable for compression connectors.

Characteristics
- Reliable stress control due to flexible silicone stress control elements
- For both copper and aluminium conductors
- For all cables with copper wire or tape screen
- Wide conductor and cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

Note
- 12 kV joints must be used for 7.2 kV cables. (Check minimum diameter over conductor insulation.)

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Dimensions



Scope of delivery
Thick wall heat shrinkable insulation tubes, thick wall heat shrinkable outer tube with hot melt adhesive, silicone stress control elements, copper braid tube, pressure springs, field control filling tape (blue), assembly material, assembly instructions

Optional accessory: Compression connectors (see Connecting technology)

Type		L mm	min. Ø over core insulation after removal of the outer conductive layer mm	max. Connector Ø mm	max. Connector length mm	12 kV Nominal cross section mm²	17.5 kV Nominal cross section mm²	Art.-No.
U_0/U (U_m) 6/10 (12) kV - 6.35/11 (12) kV								
CHM 12kV	10-25	650	9.9	16	90	10 - 25		194072
	35-95	650	12.6	25	135	35 - 95		194073
	95-240	650	17.3	32	145	95 - 240		194074
	150-300	700	19.9	40	200	150 - 300		194075
	300-400	700	23.1	40	200	300 - 400		194076
	500-800	850	27.3	60	360	500 - 800		194077
	800-1000	850	36.8	60	360	800 - 1000		194078
U_0/U (U_m) 8.7/15 (17.5) kV								
CHM 17kV	35-95	650	12.6	25	135		35 - 95	194079
	70-240	650	17.3	32	145		70 - 240	194080
	240-400	700	23.1	40	200		240 - 400	194082
	400-630	850	27.3	60	360		400 - 630	194083
	630-1000	850	36.8	60	360		630 - 1000	194085

→ Continued on the next page

→ Continuation

CHM...V

1-core straight-through joint

Type		L mm	min. Ø over core insulation after removal of the outer conductive layer mm	max. Connector Ø mm	max. Connector length mm	24 kV Nominal cross section mm²	36 kV Nominal cross section mm²	Art.-No.
U_0/U (U_m) 12/20 (24) kV - 12.7/22 (24) kV								
CHM 24kV	10-35	650	12.6	20	100	10 - 35		193339
	50-150	650	17.3	25	135	50 - 150		193370
	70-240	700	19.9	32	145	70 - 240		194086
	150-300	700	23.1	40	200	150 - 300		194087
	400-630	850	27.3	60	360	400 - 630		194088
	630-1000	850	36.8	60	360	630 - 1000		194089
U_0/U (U_m) 18/30 (36) kV - 19/33 (36) kV								
CHM 36kV	35-70	650	19.9	20	110		35 - 70	194090
	50-150	700	23.1	25	135		50 - 150	194091
	150-300	700	27.3	38	200		150 - 300	194092
	300-500	700	27.3	45	200		300 - 500	194093
	500-1000	850	36.8	60	360		500 - 1000	194094

CABLE SETS FOR SCREENED POLYMERIC CABLES

Straight-through joints for 1-core cables



CAM-S

1-core straight-through joint

for all 1-core polymeric cables

Contrax straight-through joints CAM-S are suitable for all 1-core polymeric-insulated cables (PVC, PE, XLPE, EPR). They allow the connection of cables with different cross sections and conductor materials even with different cable designs concerning the semi-conductive layer (graphite-coated, removable or strippable) and screen design (wire or tape screen). Suitable for compression connectors.

Dimensions



Characteristics
- Reliable stress control due to flexible silicone stress control elements
- Wide conductor and cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level
- U_0/U (U_m) 6/10 (24) kV - 12,7/22 (24) k

Note
- Check minimum diameter over conductor insulation

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Scope of delivery
Thick wall heat shrinkable outer tube with hot melt adhesive, silicone stress control elements, silicone joint body with integrated semi-conductive layer (individually tested), roll, pressure springs, semiconductor tape, assembly instructions

Optional accessory:Compression connectors (see Connecting technology)

Type		L mm	min. Ø over core insulation after removal of the outer conductive layer mm	max. Connector Ø mm	max. Connector length mm	12 kV Nominal cross section mm²	24 kV Nominal cross section mm²	Art.-No.
U_0/U (U_m) 6/10 (12) kV - 6,35/11 (12) kV								
CAM-S 12 kV	50-240	700	14,7	36	160	50-240	-	201386

Straight-through joints for 1-core cables



CAMSV-S

1-core straight-through joint

with screw connector and heat shrinkable outer protection, for all 1-core polymeric cables

Contrax-Straight-through joints CAMSV-S are suitable for all 1-core polymeric-insulated cables (PVC, PE, XLPE, EPR). They allow the connection of cables with different cross sections and conductor materials even with different cable designs concerning the semi-conductive layer (removable or strippable) and screen design (wire or tape screen). With screw connector.

Characteristics
- Slip-on silicone joint unit with integrated stress control element
- Suitable for a wide range of applications due to included screw connector
- Wide conductor and cross-section range
- For both copper and aluminium conductors
- Few components, compact design and reduced working length
- With heat shrinkable outer protection
- Quick, safe and easy assembly
- Ready for immediate operation

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 12.7/22 (24) kV

Note
- Joints can be used also for 7.2 kV cables. (Check minimum diameter over conductor insulation.)

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Storage conditions/Shelf life
- Unlimited shelf life

Dimensions



Scope of delivery
Thick wall heat shrinkable outer tube with hot melt adhesive, silicone joint body with integrated inner and outer semi-conductive layer (individually tested), screw connector, roll, pressure springs, assembly instructions

Type		L mm	min. Ø over core insulation after removal of the outer conductive layer mm	Nominal cross section mm² 12 kV	17.5 kV	24 kV	Art.-No.
U_0/U (U_m) 6/10 (12) kV - 12,7/22 (24) kV							
CAMSV-S 24kV	35-95	600	16,5	70 - 150	50 - 120	35 - 95	370729
	95-300	650	22	150 - 300	120 - 300	95 - 300	354999
	400-630	700	29,15	400 - 630	400 - 630	400 - 630	370730

CABLE SETS FOR SCREENED POLYMERIC CABLES

Straight-through joints for 1-core cables



CCMSV

1-core straight-through joint

All-in-one coldshrink joint with screw connector

BBC Cellpack cold shrink Straight-through joints CCMSV are suitable for all 1-core polymeric insulated cables (with XLPE or (H)EPR) insulation and with PVC, PE outer sheath). They allow the connection of cables with copper wire and tape screen with different cross sections and conductor materials even with different cable designs concerning the semi-conductive layer (removable, or strippable). With screw connector.

Characteristics
- Few components, compact design and reduced working length
- Silicon insulation body with integrated electric stress control
- Suitable for a wide range of applications due to included screw connector
- For both copper and aluminium conductors
- With cold shrinkable outer protection
- Quick, safe, and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life
- 24 Monate at +5°C to +40°C

Application/Suitability
- Indoor
- Outdoor
- Underground
- Installation ducts

Voltage Level
- U_0/U (U_m) 6/10 (12) kV - 18/30 (36) kV

Test standards
- CENELEC HD 629.1 S3

Dimensions

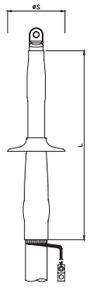


Scope of delivery
All-in-one cold shrinkable joint body, screw connector, silicone grease, sealing mastics, sealing MAT, pressure springs, Cu-Tape, field control filling tape, assembly material, assembly instructions

Type		L mm	min. Ø over core insulation after removal of the outer conductive layer mm	Nominal cross section mm² 6/10 (12) kV - 6.35/11 (12) kV	8.7/15(17.5) kV	12/20 (24) kV - 12.7/22 (24) kV	18/30 (36) kV	Art.-No.
U_0/U (U_m) 6/10 (12) kV - 12.7/22 (24) kV								
CCMSV 24 kV	35-95	650	17 - 24	95	70-95	35 - 95		456087
	95-240	700	19 - 32	150 - 240	95-240	95 - 240		456088
	120-300	750	24 - 36	240 - 300	185-300	120 - 300		456089
	240 RM-400	800	30 - 38	400	300-400	240 RM - 400		456150
	300-630	800	30 - 42	400 - 630	400-630	300 - 630		456151
U_0/U (U_m) 12/20 (24) kV - 18/30 (36) kV								
CCMSV 36 kV	25-95	700	21.4 - 32			95	25 - 95	456153
	35-150	700	22.3 - 32			95 - 150	35 - 150	456154
	95-240	750	26 - 36			185 - 240	95 - 240	443213
	240-400	800	30.5 - 42			300 - 400	240 - 400	456155
	300-630	850	35 - 54			400 - 630	300 - 630	456156



Dimensions



Ø S = Diameter of cable shed

CHESK-I

1-core indoor cable termination

with screw cable lugs, for all 1-core polymeric cables
Hybrid cable terminations CHESK-I are suitable for all 1-core polymeric-insulated cables (PVC, PE, XLPE, EPR) with different types of semi-conductive layers (graphite-coated, removable or strippable) and screen design (copper wire or tape). With screw cable lugs for main conductor and copper wire screen.

Characteristics
- Flexible silicone stress control elements ensure reliable stress control under all operating conditions
- Combination of slip-on and heat shrinkable components
- Wide cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

Note
- 12 kV cable terminations must be used for 7.2 kV cables. (Check minimum diameter over conductor insulation.)

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Scope of delivery
1 set for 3 phases, heat shrinkable tube (tracking resistant), silicone stress control elements, silicone sheds, sealing tape, screw cable lugs, assembly material, assembly instructions

Optional accessory: EGA earthing kit for cables with tape screen (see Connecting technology)

→ Continued on the next page

CABLE SETS FOR SCREENED POLYMERIC CABLES

Cable terminations for 1-core cables

→ Continuation

CHESK-I

1-core indoor cable termination

						12 kV	17.5 kV	24 kV	36 kV	42 kV	
Type		**L mm**	**min. Ø over core insulation after removal of the outer conductive layer mm**	**Number of sheds per phase**	**Ø S mm**	**Nominal cross section mm²**					**Art.-No.**
U_0/U (U_m) 6/10 (12) kV - 6.35/11 (12) kV											
CHESK-I 12kV	25-95	300	12.6			25 - 95					290443
	70-150	300	17.3			70 - 150					309514
	95-240	300	17.3			95 - 240					290444
	240-400	300	19.9			240 - 400					309516
	400-630	310	27.3			400 - 630					369496
	630-1000	310	36.8			630 - 1000					369497
U_0/U (U_m) 8.7/15 (17.5) kV											
CHESK-I 17kV	35-95	300	17.3	1	85		35 - 95				309517
	50-150	300	17.3	1	85		50 - 150				309519
	95-240	300	19.9	1	85		95 - 240				309520
	240-400	300	23.1	1	85		240 - 400				309521
	400-630	310	27.3	1	115		400 - 630				369505
	630-1000	310	36.8	1	123		630 - 1000				369506
U_0/U (U_m) 12/20 (24) kV - 12.7/22 (24) kV											
CHESK-I 24kV	25-95	300	17.3	1	85			25 - 95			309522
	50-150	300	17.3	1	85			50 - 150			309523
	95-240	300	19.9	1	85			95 - 240			309525
	240-400	300	27.3	1	115			240 - 400			309526
	400-630	310	27.3	1	115			400 - 630			364848
	630-1000	310	36.8	1	123			630 - 1000			369498
U_0/U (U_m) 18/30 (36) kV - 19/33 (36) kV											
CHESK-I 36kV	16-95	500	19.9	2	85				16 - 95		309527
	50-150	500	23.1	2	85				50 - 150		309528
	95-240	500	23.1	2	85				95 - 240		309529
	240-400	500	27.3	2	115				240 - 400		309530
	400-630	500	36.8	2	115				400 - 630		369499
	630-1000	500	36.8	2	123				630 - 1000		369500
U_0/U (U_m) 20,8/36(42) kV											
CHESK-I 42kV	50-150	700	25.3	4	85					50-150	309531
	95-240	700	27.5	4	115					95-240	289708
	240-400	700	32.5	4	115					240-400	309533
	400-630	700	40.3	4	115					400-630	369501
	630-1000	700	40.3	4	123					630-1000	369502



CHE-I
1-core indoor cable termination
for all 1-core polymeric cables

Hybrid cable terminations CHE-I are suitable for all 1-core polymeric-insulated cables (PVC, PE, XLPE, EPR) with different types of semi-conductive layers (graphite-coated, removable or strippable) and screen design (copper wire or tape). Suitable for compression cable lugs.

Characteristics
- Flexible silicone stress control elements ensure reliable stress control under all operating conditions
- Combination of slip-on and heat shrinkable components
- Wide cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

Note
- 12 kV cable terminations must be used for 7.2 kV cables. (Check minimum diameter over conductor insulation.)

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Scope of delivery
1 set for 3 phases, heat shrinkable tube (tracking resistant), silicone stress control elements, silicone sheds, sealing tape, assembly material, assembly instructions

Optional accessory: Cable lugs (see Connecting technology)
EGA earthing kit for cables with tape screen (see Connecting technology)

Dimensions



Ø S = Diameter of cable shed

Type	L mm	min. Ø over core insulation after removal of the outer conductive layer mm	Number of sheds per phase	Ø S mm	12 kV	17.5 kV	24 kV	36 kV	42 kV	Art.-No.
					Nominal cross section mm²					
U_0/U (U_m) 6/10 (12) kV - 6.35/11 (12) kV										
CHE-I 12kV	10-25	300	9.9			10 - 25				193414
	25-95	300	12.6			25 - 95				193416
	95-240	300	17.3			95 - 240				194017
	150-400	300	19.9			150 - 400				194018
	240-500	300	23.1			240 - 500				194019
	400-800	300	27.3			400 - 800				194030
	800-1000	300	36.8			800 - 1000				194031
U_0/U (U_m) 8.7/15 (17.5) kV										
CHE-I 17kV	10-16	300	9.9	1	80		10 - 16			194032
	16-50	300	12.6	1	80		16 - 50			194033
	70-240	300	17.3	1	85		70 - 240			194034
	120-300	300	19.9	1	85		120 - 300			194035
	185-400	300	23.1	1	85		185 - 400			194036
	300-630	300	27.3	1	115		300 - 630			194037
	630-1000	300	36.8	1	123		630 - 1000			194038
U_0/U (U_m) 12/20 (24) kV - 12,7/22 (24) kV										
CHE-I 24kV	10-35	300	12.6	1	85			10 - 35		194039
	25-150	300	17.3	1	85			25 - 150		194040
	70-240	300	19.9	1	85			70 - 240		194041
	120-300	300	23.1	1	85			120 - 300		194042
	240-500	300	27.3	1	115			240 - 500		194043
	630-1000	300	36.8	1	123			630 - 1000		194044
U_0/U (U_m) 18/30 (36) kV - 19/33 (36) kV										
CHE-I 36kV	35-70	500	19.9	2	85				35 - 70	194045
	50-150	500	23.1	2	85				50 - 150	194046
	150-400	500	27.3	2	115				150 - 400	194047
	500-800	500	36.8	2	123				500 - 800	194048
U_0/U (U_m) 20.8/36 (42) kV										
CHE-I 42kV	50-150	700	24.2	4	85					50-150 196508
	120-400	700	28.6	4	115					120-400 196509

CABLE SETS FOR SCREENED POLYMERIC CABLES

Cable terminations for 1-core cables



CHESK-F
1-core outdoor cable termination
with screw cable lugs, for all 1-core polymeric cables

Hybrid cable terminations CHESK-F are suitable for all 1-core polymeric-insulated cables (PVC, PE, XLPE, EPR) with different types of semi-conductive layers (graphite-coated, removable or strippable) and screen design (copper wire or tape). With screw cable lugs for main conductor and copper wire screen.

Characteristics
- Flexible silicone stress control elements ensure reliable stress control under all operating conditions
- Combination of slip-on and heat shrinkable components
- Wide cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Outdoor

Voltage level
- U0/U (Um) 6/10 (12) kV - 19/33 (36) kV

Note
- 12 kV cable terminations must be used for 7.2 kV cables. (Check minimum diameter over conductor insulation.)

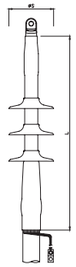
Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Scope of delivery

1 set for 3 phases, heat shrinkable tube (tracking resistant), silicone stress control elements, silicone sheds, sealing tape, screw cable lugs, assembly material, assembly instructions

Optional accessory: EGA earthing kit for cables with tape screen (see Connecting technology)

Dimensions



Ø S = Diameter of cable shed

→ Continued on the next page

→ Continuation

CHESK-F
1-core outdoor cable termination

Type		L mm	min. Ø over core insulation after removal of the outer conductive layer mm	Number of sheds per phase	Ø S mm	12 kV	17.5 kV	24 kV	36 kV	42 kV	Art.-No.
						Nominal cross section mm²					
U_0/U (U_m) 6/10 (12) kV - 6.35/11 (12) kV											
CHESK-F 12kV	25-95	300	12.6	1	80	25 - 95					309534
	70-150	300	17.3	1	85	70 - 150					309535
	95-240	300	17.3	1	85	95 - 240					309536
	240-400	300	19.9	1	85	240 - 400					309537
	400-630	310	27.3	1	115	400 - 630					369503
	630-1000	310	36.8	1	123	630 - 1000					369504
U_0/U (U_m) 8.7/15 (17.5) kV											
CHESK-F 17kV	35-95	500	17.3	2	85		35 - 95				309539
	50-150	500	17.3	2	85		50 - 150				309540
	95-240	500	19.9	2	85		95 - 240				309541
	240-400	500	23.1	2	85		240 - 400				309542
	400-630	500	27.3	2	115		400 - 630				369508
	630-1000	500	36.8	2	123		630 - 1000				369509
U_0/U (U_m) 12/20 (24) kV - 12.7/22 (24) kV											
CHESK-F 24kV	25-95	500	17.3	3	85			25 - 95			309545
	50-150	500	17.3	3	85			50 - 150			309546
	95-240	500	19.9	3	85			95 - 240			309548
	240-400	500	27.3	3	115			240 - 400			309550
	400-630	500	27.3	3	115			400 - 630			364847
	630-1000	500	36.8	3	123			630 - 1000			369507
U_0/U (U_m) 18/30 (36) kV - 19/33 (36) kV											
CHESK-F 36kV	16-95	700	19.9	4	85				16 - 95		309551
	50-150	700	23.1	4	85				50 - 150		309552
	95-240	700	23.1	4	85				95 - 240		309553
	240-400	700	27.3	4	115				240 - 400		309554
	400-630	700	36.8	4	115				400 - 630		369520
	630-1000	700	36.8	4	123				630 - 1000		369521
U_0/U (U_m) 20,8/36(42) kV											
CHESK-F 42kV	50-150	820	25.3	6	85					50-150	309555
	95-240	820	27.5	6	115					95-240	362230
	240-400	820	32.5	6	115					240-400	309556
	400-630	820	40.3	6	115					400-630	369522
	630-1000	820	40.3	6	123					630-1000	369523

→ Continued on the next page

CABLE SETS FOR SCREENED POLYMERIC CABLES

Cable terminations for 1-core cables



Dimensions



Ø S = Diameter of cable shed

CHE-F
1-core outdoor cable termination

for all 1-core polymeric cables
Hybrid cable terminations CHE-F are suitable for all 1-core polymeric-insulated cables (PVC, PE, XLPE, EPR) with different types of semi-conductive layers (graphite-coated, removable or strippable) and screen design (copper wire or tape). Suitable for compression cable lugs.

Characteristics
- Flexible silicone stress control elements ensure reliable stress control under all operating conditions
- Combination of slip-on and heat shrinkable components
- Wide cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Outdoor

Voltage level
- U0/U (Um) 6/10 (12) kV - 19/33 (36) kV

Note
- 12 kV cable terminations must be used for 7.2 kV cables. (Check minimum diameter over conductor insulation.)

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Scope of delivery
1 set for 3 phases, heat shrinkable tube (tracking resistant), silicone stress control elements, silicone sheds, sealing tape, assembly material, assembly instructions

Optional accessory: Cable lugs (see Connecting technology)
EGA earthing kit for cables with tape screen (see Connecting technology)

Type		L mm	min. Ø over core insulation after removal of the outer conductive layer mm	Number of sheds per phase	Ø S mm	12 kV	17.5 kV	24 kV	36 kV		Art.-No.
						Nominal cross section mm²					
U_0/U (U_m) 6/10 (12) kV - 6.35/11 (12) kV											
CHE-F 12kV	10-25	300	9.9	1	80	10 - 25					194049
	25-95	300	12.6	1	80	25 - 95					194050
	95-240	300	17.3	1	85	95 - 240					194051
	150-400	300	19.9	1	85	150 - 400					194052
	240-500	300	23.1	1	85	240 - 500					194053
	400-800	300	27.3	1	115	400 - 800					194054
	800-1000	300	36.8	1	123	800 - 1000					194055
U_0/U (U_m) 8.7/15 (17.5) kV											
CHE-F 17kV	10-16	500	9.9	2	80		10 - 16				194056
	16-50	500	12.6	2	80		16 - 50				194057
	70-240	500	17.3	2	85		70 - 240				194058
	120-300	500	19.9	2	85		120 - 300				194059
	185-400	500	23.1	2	85		185 - 400				194061
	300-630	500	27.3	2	115		300 - 630				194062
	630-1000	500	36.8	2	123		630 - 1000				194063
U_0/U (U_m) 12/20 (24) kV - 12,7/22 (24) kV											
CHE-F 24kV	10-35	500	12.6	3	85			10 - 35			193372
	25-150	500	17.3	3	85			25 - 150			193374
	70-240	500	19.9	3	85			70 - 240			194064
	120-300	500	23.1	3	85			120 - 300			194065
	240-500	500	27.3	3	115			240 - 500			194066
	630-1000	500	36.8	3	123			630 - 1000			194067
U_0/U (U_m) 18/30 (36) kV - 19/33 (36) kV											
CHE-F 36kV	35-70	700	19.9	4	85				35 - 70		194068
	50-150	700	23.1	4	85				50 - 150		194069
	150-400	700	27.3	4	115				150 - 400		194070
	500-800	700	36.8	4	123				500 - 800		194071
U_0/U (U_m) 20.8/36 (42) kV											
CHE-F 42kV	50-150	820	24.2	6	85					50-150	196506
	120-400	820	28.6	6	115					120-400	196507



CAESK-I

1-core indoor cable termination

with screw cable lugs, for all 1-core polymeric cables

Contrax cable terminations CAESK-I are suitable for all 1-core polymeric-insulated cables (PVC, PE, XLPE, EPR) with different types of semi-conductive layers (graphite-coated, removable or strippable) and screen design (wire or tape). With screw cable lugs.

Characteristics
- Wide cross-section range
- Silicone slip-on components for quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

Note
- 12 kV cable terminations must be used for 7.2 kV cables. (Check minimum diameter over conductor insulation.)

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Dimensions



Ø S = Diameter of cable shed

Scope of delivery
3 one-piece slip-on silicone cable terminations with integrated stress control element, silicone tubes, sealing tape, screw cable lugs for main conductor, assembly material, assembly instructions

Optional accessory: EGA earthing kit for cables with tape screen (see Connecting technology)

Type		L mm	min. Ø over core insulation after removal of the outer conductive layer mm	Number of sheds per phase	Ø S mm	Nominal cross section mm² 12 kV	Nominal cross section mm² 24 kV	Nominal cross section mm² 36 kV	Art.-No.
U_0/U (U_m) 6/10 (12) kV - 6.35/11 (12) kV									
CAESK-I 12kV	95-150	310	17.3	1	87	95 - 150			289945
	150-240	330	19.9	1	90	150 - 240			289947
	300-400	340	26.6	1	93	300 - 400			289948
	500-630	360	32.3	1	97	500 - 630			289949
U_0/U (U_m) 12/20 (24) kV - 12.7/22 (24) kV									
CAESK-I 24kV	35-95	310	17.3	1	87		35 - 95		289955
	70-150	310	19.9	1	90		70 - 150		289956
	120-240	330	23.1	1	90		120 - 240		289957
	240-400	340	27.3	1	97		240 - 400		289958
	400-500	360	32.3	1	97		400 - 500		289959
U_0/U (U_m) 18/30 (36) kV - 19/33 (36) kV									
CAESK-I 36kV	16-95	360	20.9	4	93			16 - 95	289960
	70-150	360	24.2	4	93			70 - 150	289961
	120-240	380	28.6	4	97			120 - 240	289962
	240-300	390	32.3	4	97			240 - 300	289963

CABLE SETS FOR SCREENED POLYMERIC CABLES

Cable terminations for 1-core cables



CAE-I

1-core indoor cable termination

for all 1-core polymeric cables

Contrax cable terminations CAE-I are suitable for all 1-core polymeric-insulated cables (PVC, PE, XLPE, EPR) with different types of semi-conductive layers (graphite-coated, removable or strippable) and screen design (wire or tape). Suitable for compression cable lugs.

Characteristics
- Wide cross-section range
- Silicone slip-on components for quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

Note
- 12 kV cable terminations must be used for 7.2 kV cables. (Check minimum diameter over conductor insulation.)

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Dimensions



Ø S = Diameter of cable shed

Scope of delivery
3 one-piece slip-on silicone cable terminations with integrated stress control element, sealing tape, assembly material, assembly instructions

Optional accessory: Compression cable lugs (see Connecting technology)
EGA earthing kit for cables with tape screen (see Connecting technology)

Type		L mm	min. Ø over core insulation after removal of the outer conductive layer mm	Number of sheds per phase	Ø S mm	Nominal cross section mm² 12 kV	Nominal cross section mm² 24 kV	Nominal cross section mm² 36 kV	Art.-No.
U_0/U (U_m) 6/10 (12) kV - 6.35/11 (12) kV									
CAE-I 12kV	95-240	270	17.3	1	87	95 - 240			199151
	150-400	270	19.9	1	90	150 - 400			199152
	240-500	270	23.1	1	93	240 - 500			199154
	300-800	270	27.3	1	97	300 - 800			199155
U_0/U (U_m) 12/20 (24) kV - 12.7/22 (24) kV									
CAE-I 24kV	35-120	270	17.3	1	87		35 - 120		199162
	70-240	270	19.9	1	90		70 - 240		199163
	120-400	270	23.1	1	93		120 - 400		199164
	240-630	270	27.3	1	97		240 - 630		199165
U_0/U (U_m) 18/30 (36) kV - 19/33 (36) kV									
CAE-I 36kV	16-95	325	19.9	4	90			16 - 95	199166
	50-240	325	23.1	4	93			50 - 240	199167
	120-400	325	27.3	4	97			120 - 400	199168

Cable terminations for 1-core cables



CAESK-F

1-core outdoor cable termination

with screw cable lugs, for all 1-core polymeric cables

Contrax cable terminations CAESK-F are suitable for all 1-core polymeric-insulated cables (PVC, PE, XLPE, EPR) with different types of semi-conductive layers (graphite-coated, removable or strippable) and screen design (wire or tape). With screw cable lugs.

Characteristics
- Wide cross-section range
- Silicone slip-on components for quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Outdoor

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

Note
- 12 kV cable terminations must be used for 7.2 kV cables. (Check minimum diameter over conductor insulation.)

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Dimensions



Ø S = Diameter of cable shed

Scope of delivery
3 one-piece slip-on silicone cable terminations with integrated stress control element, silicone tubes, sealing tape, screw cable lugs for main conductor, assembly material, assembly instructions

Optional accessory: EGA earthing kit for cables with tape screen (see Connecting technology)

Type		L mm	min. Ø over core insulation after removal of the outer conductive layer mm	Number of sheds per phase	Ø S mm	12 kV Nominal cross section mm²	24 kV Nominal cross section mm²	36 kV Nominal cross section mm²	Art.-No.
U_0/U (U_m) 6/10 (12) kV - 6.35/11 (12) kV									
CAESK-F 12kV	95-150	360	17.3	4	87	95 - 150			289894
	150-240	390	19.9	4	90	150 - 240			289897
	300-400	390	26.6	4	93	300 - 400			289898
	500-630	410	32.3	4	97	500 - 630			289899
U_0/U (U_m) 12/20 (24) kV - 12.7/22 (24) kV									
CAESK-F 24kV	35-95	360	17.3	4	87		35 - 95		289905
	70-150	360	19.9	4	90		70 - 150		289906
	120-240	390	23.1	4	93		120 - 240		289907
	240-400	410	27.3	4	97		240 - 400		289908
	400-500	410	32.3	4	97		400 - 500		289909
U_0/U (U_m) 18/30 (36) kV - 19/33 (36) kV									
CAESK-F 36kV	70-150	470	24.2	5	93			70 - 150	289910
	120-240	500	28.6	5	97			120 - 240	289911
	240-300	500	32.3	5	97			240 - 300	289912

CABLE SETS FOR SCREENED POLYMERIC CABLES

Cable terminations for 1-core cables



CAE-F

1-core outdoor cable termination

for all 1-core polymeric cables

Contrax cable terminations CAE-F are suitable for all 1-core polymeric-insulated cables (PVC, PE, XLPE, EPR) with different types of semi-conductive layers (graphite-coated, removable or strippable) and screen design (wire or tape). Suitable for compression cable lugs.

Characteristics
- Wide cross-section range
- Silicone slip-on components for quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life
- Unlimited shelf life

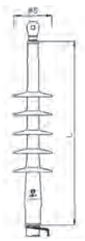
Application/Suitability
- Outdoor

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

Note
- 12 kV cable terminations must be used for 7.2 kV cables. (Check minimum diameter over conductor insulation.)

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Dimensions



Ø S = Diameter of cable shed

Scope of delivery
3 one-piece slip-on silicone cable terminations with integrated stress control element, sealing tape, assembly material, assembly instructions

Optional accessory: Compression cable lugs (see Connecting technology)
EGA earthing kit for cables with tape screen (see Connecting technology)

Type		L mm	min. Ø over core insulation after removal of the outer conductive layer mm	Number of sheds per phase	Ø S mm	12 kV Nominal cross section mm²	24 kV Nominal cross section mm²	36 kV Nominal cross section mm²	Art.-No.
U_0/U (U_m) 6/10 (12) kV - 6.35/11 (12) kV									
CAE-F 12kV	95-240	325	17.3	4	87	95 - 240			199184
	150-400	325	19.9	4	90	150 - 400			199185
	240-500	325	23.1	4	93	240 - 500			199186
	300-800	325	27.3	4	97	300 - 800			199187
U_0/U (U_m) 12/20 (24) kV - 12.7/22 (24) kV									
CAE-F 24kV	35-120	325	17.3	4	87		35 - 120		199194
	70-240	325	19.9	4	90		70 - 240		199195
	120-400	325	23.1	4	93		120 - 400		199196
	240-630	325	27.3	4	97		240 - 630		199197
U_0/U (U_m) 18/30 (36) kV - 19/33 (36) kV									
CAE-F 36kV	50-240	440	23.1	5	93			50 - 240	199198
	120-400	440	27.3	5	97			120 - 400	199199



CWS 250A

Elbow separable connector

for all 1-core polymeric cables, for outer cone system terminals type A

Cellplux elbow separable connectors CWS are suitable for connecting all polymeric-insulated 1-core cables (PVC, PE, XLPE, EPR), with different types of semi-conductive layers (graphite-coated or strippable) and screen design (wire or tape screen), to switching equipment and transformers having an outer cone system type A, up to maximum network voltage of 24 kV in accordance with EN 50180 and EN 50181.

Characteristics
- With capacitive measuring point
- Individually tested
- Outer semi-conductive layer made of semi-conductive EPDM provides protection from exposed electrical parts
- Cable sheath insulation fault test may be performed while under voltage
- For copper and aluminium conductors
- Quick, safe and easy assembly
- Suitable for a wide range of applications due to integrated screw cable lug

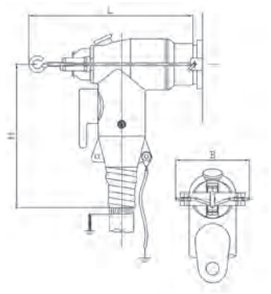
Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 12.7/22 (24) kV

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Dimensions



Scope of delivery
Set of 3 separable connectors, silicone stress control elements, earthing set, screw cable lug for main conductor, assembly material, assembly instructions

Optional accessory: EGA earthing kit for cables with tape screen (see Connecting technology)
Note: Elbow separable connections for alternative cross-sections and for class 5 conductors on request

Type		L mm	B mm	H mm	min. Ø over core insulation after removal of the outer conductive layer mm	12 kV / 17.5 kV / 24 kV Nominal cross section mm²			Art.-No.
U_0/U (U_m) 6/10 (12) kV - 12.7/22 (24) kV									
CWS 250A 24kV	16-95 M EGA	200	80	178	14.7	50 - 95	25 - 95	16 - 95	295167
	70-150 M EGA	200	80	178	19.9	120 - 150	95 - 150	70 - 150	293792

CABLE SETS FOR SCREENED POLYMERIC CABLES

Separable connectors for 1-core cables



CGS 250A

Straight separable connector

for all 1-core polymeric cables, for outer cone system terminals type A

Cellplux straight separable connectors CGS are suitable for connecting all polymeric-insulated 1-core cables (PVC, PE, XLPE, EPR), with different types of semi-conductive layers (graphite-coated or strippable) and screen design (wire or tape screen) for switching equipment and transformers having an outer cone system type A, up to maximum network voltage of 24 kV in accordance with EN 50180 and EN 50181.

Characteristics
- With capacitive measuring point
- Individually tested
- Outer semi-conductive layer made of semi-conductive EPDM provides protection from exposed electrical parts
- Cable sheath insulation fault test may be performed while under voltage
- For copper and aluminium conductors
- Quick, safe and easy assembly
- Suitable for a wide range of applications due to integrated screw cable lug

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Outdoor

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

Note
- 12 kV cable terminations must be used for 7.2 kV cables. (Check minimum diameter ove Application/ Suitability
- Indoor

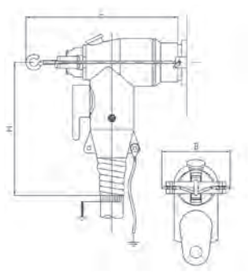
Voltage level
- U_0/U (U_m) 6/10 (12) kV - 12.7/22 (24) kV

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Storage conditions/Shelf life
- Unlimited shelf life r conductor insulation.)

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Dimensions



Scope of delivery
Set of 3 separable connectors, silicone stress control elements, earthing set, screw cable lug for main conductor, assembly material, assembly instructions

Optional accessory: EGA earthing kit for cables with tape screen (see Connecting technology)
Note: Straight separable connections for alternative cross-sections and for class 5 conductors on request

Type		L mm	B mm	min. Ø over core insulation after removal of the outer conductive layer mm	12 kV / 17.5 kV / 24 kV Nominal cross section mm²			Art.-No.
U_0/U (U_m) 6/10 (12) kV - 12.7/22 (24) kV								
CGS 250A 24kV	25-95 M EGA	248	110	14.7	50 - 95	25 - 95	25 - 95	295283
	70-150 M EGA	248	110	19.9	120 - 150	95 - 150	70 - 150	293797

Separable connectors for 1-core cables



CWS 400A

Elbow separable connector

for all 1-core polymeric cables, for outer cone system terminals type B

Cellplux elbow separableconnectors CWS are suitable for connecting all polymeric-insulated 1-core cables (PVC, PE, XLPE, EPR), with different types of semi-conductive layers (graphite-coated or strippable) and screen design (wire or tape screen), to switching equipment and transformers having an outer cone system type B, up to maximum network voltage of 36 kV in accordance with EN 50180 and EN 50181.

Characteristics
- With capacitive measuring point
- Individually tested
- Outer semi-conductive layer made of semi-conductive EPDM provides protection from exposed electrical parts
- Cable sheath insulation fault test may be performed while under voltage
- For copper and aluminium conductors
- Quick, safe and easy assembly
- Suitable for a wide range of applications due to integrated screw cable lug

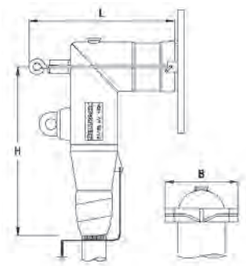
Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Dimensions



Scope of delivery
Set of 3 separable connectors, silicone stress control elements, earthing set, screw cable lug for main conductor, assembly material, assembly instructions

Optional accessory: EGA earthing kit for cables with tape screen (see Connecting technology)
Note: Elbow separable connections for alternative cross-sections and for class 5 conductors on request

Type		L mm	B mm	H mm	min. Ø over core insulation after removal of the outer conductive layer mm	12 kV	17.5 kV	24 kV	36 kV	Art.-No.
						Nominal cross section mm²				
U_0/U (U_m) 6/10 (12) kV - 12.7/22 (24) kV										
CWS 400A 24kV	25-70 EGA	215	107	250	14.7	50 - 95	25 - 95	25 - 70		250720
	95-240 EGA	215	107	250	22.0	150 - 240	120 - 240	95 - 240		246176
U_0/U (U_m) 12/20 (24) kV - 19/33 (36) kV										
CWS 400A 36kV	35-95 EGA	215	107	250	22,0			95 - 95	35 - 95	250726
	95-150 EGA	215	107	250	22,0			95-240	95-150	359558
	150-240 EGA	215	107	250	30,8			240 - 240	150 - 240	247102

CABLE SETS FOR SCREENED POLYMERIC CABLES

Separable connectors for 1-core cables



CTS 630A

T-shaped separable connector

for all 1-core polymeric cables, for outer cone system terminals type C

Cellplux screwable T-shaped separable connectors CTS are suitable for connecting all polymeric-insulated 1-core cables (PVC, PE, XLPE, EPR), with different types of semi-conductive layers (graphite-coated or strippable) and screen design (wire or tape screen) to switching equipment and transformers having an outer cone system type C, up to maximum network voltage of 36 kV in accordance with EN 50180 and EN 50181

Characteristics
- With capacitive measuring point
- Individually tested
- Outer semi-conductive layer made of semi-conductive EPDM provides protection from exposed electrical parts
- Cable sheath insulation fault test may be performed while under voltage
- For copper and aluminium conductors
- Quick, safe and easy assembly
- Suitable for a wide range of applications due to integrated screw cable lug

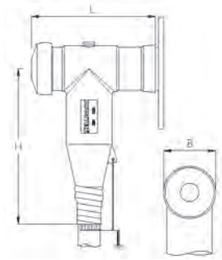
Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Dimensions



Scope of delivery
Set of 3 separable connectors, silicone stress control elements, earthing set, screw cable lug for main conductor, assembly material, assembly instructions

Optional accessory: EGA earthing kit for cables with tape screen (see Connecting technology)
Note: Other T-shaped separable connectors (cross-sections, class 5) available on request

Type		L mm	B mm	H mm	min. Ø over core insulation after removal of the outer conductive layer mm	12 kV	17.5 kV	24 kV	36 kV	Art.-No.
						Nominal cross section mm²				
U_0/U (U_m) 6/10 (12) kV - 12.7/22 (24) kV										
CTS 630A 24kV	25-70	194	85	250	14.7	50 - 95	25 - 95	25 - 70		355434
	95-240	194	85	250	22.0	150 - 240	120 - 240	95 - 240		355433
	240-400	194	85	250	23.7	240 - 400	240 - 400	240 - 400		355561
U_0/U (U_m) 12/20 (24) kV - 19/33 (36) kV										
CTS 630A 36kV	35-95	194	85	250	22.0			95 - 95	35 - 95	355562
	95-120	194	85	250	22.0			95 - 240	95 - 120	355563
	150-240	194	85	250	30.8			240 - 240	150 - 240	355564
	240-400	194	85	265	31.5			300 - 400	240 - 400	356660

Separable connectors for 1-core cables



CTS 1250A

T-shaped separable connector

for all 1-core polymeric cables, for outer cone system terminals type C

Cellplux screwable T-shaped separable connectors CTS are suitable for connecting all polymeric-insulated 1-core cables (PVC, PE, XLPE, EPR), with different types of semi-conductive layers (graphite-coated or strippable) and screen design (wire or tape screen) to switching equipment and transformers having an outer cone system type C, up to maximum network voltage of 36 kV in accordance with EN 50180 and EN 50181.

Characteristics
- With capacitive measuring point
- Individually tested
- Outer semi-conductive layer made of semi-conductive EPDM provides protection from exposed electrical parts
- Cable sheath insulation fault test may be performed while under voltage
- For copper and aluminium conductors
- Quick, safe and easy assembly
- Suitable for a wide range of applications due to integrated screw cable lug

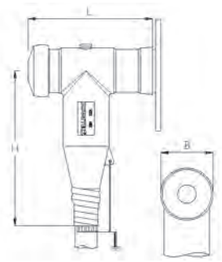
Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Dimensions



Scope of delivery
Set of 3 separable connectors, silicone stress control elements, earthing set, screw cable lug for main conductor, screw cable lug for wire screen, assembly material, assembly instructions

Optional accessory: EGA earthing kit for cables with tape screen (see Connecting technology)
Note: Other T-shaped separable connectors (cross-sections, class 5) available on request

Type		L mm	B mm	H mm	min. Ø over core insulation after removal of the outer conductive layer mm	Nominal cross section mm² 12 kV	17.5 kV	24 kV	36 kV	Art.-No.
U_0/U (U_m) 6/10 (12) kV - 12.7/22 (24) kV										
CTS 1250A 24kV	400-630 EGA M12 KS	205	87	310	33.4	500 - 630	400 - 630	400 - 630		309283
U_0/U (U_m) 12/20 (24) kV - 19/33 (36) kV										
CTS 1250A 36kV	400-630 EGA M12 KS	205	87	310	39.1			630	400 - 630	309284

Separable connectors for 1-core cables



CTKS 630A

T-shaped separable coupling connector

for all 1-core polymeric cables, for separable connector type CTS

Cellplux T-shaped separable coupling connectors CTKS are suitable for connecting all polymeric-insulated 1-core cables (PVC, PE, XLPE, EPR), with different types of semi-conductive layers (graphite-coated or strippable) and screen design (wire or tape screen) to the back of T-shaped separable connectors type CTS.

Characteristics
- With capacitive measuring point
- Individually tested
- Outer semi-conductive layer made of semi-conductive EPDM provides protection from exposed electrical parts
- Cable sheath insulation fault test may be performed while under voltage
- For copper and aluminium conductors
- Quick, safe and easy assembly
- Suitable for a wide range of applications due to integrated screw cable lug

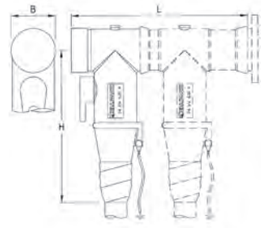
Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Dimensions



Scope of delivery
Set of 3 separable coupling connectors, silicone stress control elements, earthing set, screw cable lug for main conductor, assembly material, assembly instructions

Optional accessory: EGA earthing kit for cables with tape screen (see Connecting technology)
Note: T-shaped separable coupling connector for alternative cross-sections and for class 5 conductors on request

Type		L mm	B mm	H mm	min. Ø over core insulation after removal of the outer conductive layer mm	Nominal cross section mm² 12 kV	17.5 kV	24 kV	36 kV	Art.-No.
U_0/U (U_m) 6/10 (12) kV - 12.7/22 (24) kV										
CTKS 630A 24kV	25-70 EGA	290	74	250	14.7	50 - 95	25 - 95	25 - 70		256838
	95-240 EGA	290	74	250	22.0	150 - 240	120 - 240	95 - 240		256839
U_0/U (U_m) 12/20 (24) kV - 19/33 (36) kV										
CTKS 630A 36kV	35-95	310	85	250	22.0			95 - 95	35 - 95	257581
	95-120	310	85	250	22.0			95-240	95-120	479476
	150-240	310	85	250	30.8			240 - 240	150 - 240	257582
	240-400	310	85	250	31.5			300 - 400	240 - 400	353314

Separable connectors for 1-core cables



CTKSA
Coupling surge arrester
Class DH, for separable connector type CTS

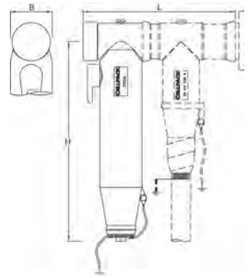
The Cellplux surge arrester CTKSA Class DH are designed to protect encapsulated medium voltage systems. The CTKSA coupling surge arresters are specifically designed for mounting on shielded, screw-type Cellpack cable connections and comply with the international standards IEC 60099-4 and IEC 60071.

Characteristics
- With capacitive measuring point
- Individually tested
- Safe-to-touch as the EPDM body is protected by outer semiconductive screen and it is connected to earth
- Quick, safe and easy assembly

Storage conditions/Shelf life
- Unlimited shelf life

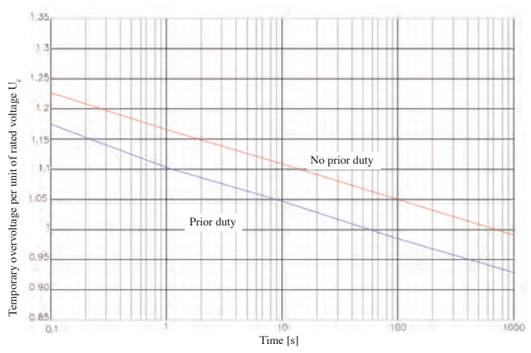
Application/Suitability
- Indoor
- Outdoor

Dimensions



Scope of delivery
Set of 3 surge arresters, assembly material, assembly instructions

Power frequency versus time characteristic (TOV)
(maximum temperature: 60°C)



	Type	L mm	B mm	H mm	Art.-No.
	8 kV	290	80	380	423851
	12 kV	290	80	380	423852
	18 kV	290	80	380	423853
CTKSA	19,5 kV	290	80	380	423854
	22 kV	290	80	380	423855
	24 kV	290	80	380	423856
	34 kV	290	80	380	423857

Technical Data							
Rated discharge current, In [kA]	10						
High current impulse 4/10 µs [kA]	100						
Rated short-circuit current [kA]	20						
Repetitive charge transfer rating, Q_{rs} [C]	0,5						
Thermal charge transfer rating, Q_{th} [C]	1,1						
Technical Data / Type	**8 kV**	**12 kV**	**18 kV**	**19,5 kV**	**22 kV**	**24 kV**	**34 kV**
Rated voltage, U_r [kV]	10,0	15,0	22,5	24,0	27,0	30,0	42,0
Maximum continuous operating voltage, U_c [kV]	8,0	12,7	18,3	19,5	22,0	24,4	34,0
Residual voltage (IEC 60099-4) [kV] with:							
Steep current impulse (1/T, T < 20 µs)	28,3	42,5	63,8	68,0	76,5	85,0	119,0
Lightning impulse 8/20 µs:							
5 kA	24,8	37,2	55,7	59,6	67,0	74,4	104,0
10 kA	26,9	40,3	60,5	64,4	72,5	80,5	112,8
20 kA	29,3	44,0	66,0	70,4	79,2	88,0	123,2

CABLE SETS FOR SCREENED POLYMERIC CABLES

Separable connectors for 1-core cables



ZS
Accessory kit
for separable connectors

The ZS-CTS accessory set is designed for the reinstallation of T-shaped separable connectors CTS to the switchgears and transformers with an outer cone of type C, in accordance with EN 50180 and EN 50181. The ZS-CTKSA accessory set is designed for the reinstallation of T-shaped surge arrester CTKSA. The ZS-CPS / CPES / CPAS Accessory set is suitable for installation of insulating plugs, Test Kits into the separable connectors of type CTS/CTKS. The ZS-LPVT accessory set is suitable for installation of the voltage sensors into separable connectors of type CTS/CTS-S/CTKS/CTKSA.

Characteristics
- Easy assembly

Application/Suitability
- Re-installation of the separable connectors of type CTS
- Re-installation of the separable surge arresters of type CTKSA
- Re-installation of the insulating plugs/
  Installation of CPS, CPES, CPAS.
- Installation of the voltage sensors

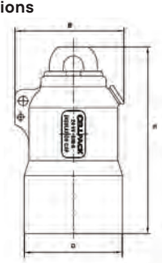
Scope of delivery
ZS-CTS: Set of 3 contact bolts with shear heads, 6 Cleaning tissues, 3 grease and filling agent (GM1), 1 applicator AH3, working instructions
ZS-CTKSA: Set of 3 contact bolts with shear heads, 6 Cleaning tissues, 3 grease and filling agent (GM1), 1 applicator AH3, working instructions
ZS-CPS/CPES/CPAS: 9 Cleaning tissues, 6 grease and filling agent (GM1), 3 pairs protective gloves and 1 applicator AH2
ZS-LPVT: 9 Cleaning tissues, 3 grease and filling agent (GM1), 3 pairs protective gloves and 1 applicator AH3

	Type	Art.-No.
	CTS 630A	257622
	CTS 1250A	374292
ZS	CTKSA	478149
	CPS/CPES/CPAS	365078
	LPVT (voltage sensors) (IEC-61869-11)	391083

Separable connectors for 1-core cables



Dimensions



CIK

Voltage-resistant insulating cap

for bushings type A 250A and type C 630A

The voltage-resistant insulating caps CIK are suitable for electrical insulation of bushings (outer cones) type A 250A and type C 630A on transformers and gas-insulated switchgears up to 36 kV, in accordance with EN 50180 and EN 50181.

Characteristics
- Submersible
- Outer semi-conductive layer made of semi-conductive EPDM provides protection from exposed electrical parts
- Easy assembly

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

Scope of delivery
Set of 3 voltage resistant insulating caps, assembly material, assembly instructions

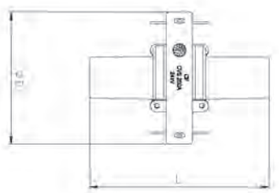
Type		B	D	H	Art.-No.
		mm			
U_0/U (U_m) 6/10 (12) kV - 12,7/22 (24) kV					
CIK 250A 24kV		82	68	116	265023
CIK 630A 24kV		93	82	160	372710
U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV					
CIK 630A 36kV		93	82	160	265024

CABLE SETS FOR SCREENED POLYMERIC CABLES

Separable connectors for 1-core cables



Dimensions



CVS 250A

Connecting element up to 24 kV

for separable connectors type CWS and type CGS, for outer cone system terminals type A

The connecting element CVS is suitable for connecting two elbow separable connectors type CWS 250A and/or straight separable connectors CGS up to 24 kV. Its dimensions correspond to outer cone systems type A, in accordance with EN 50180 and EN 50181.

Characteristics
- Individually tested
- Safe and easy to handle
- Easy assembly

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 12.7/22 (24) kV

Scope of delivery
Set of 3 connecting elements, assembly material, assembly instructions

Type		L mm	Ø D mm	Art.-No.
U_0/U (U_m) 6/10 (12) kV - 12.7/22 (24) kV				
CVS 250A 24kV		136	100	225844

Separable connectors for 1-core cables



CKS 1250A

Coupling element up to 36 kV

for T-shaped separable connectors type CTS

The coupling element CKS is suitable for connecting two T-shaped separable connectors CTS up to 36 kV. It can be used for 630 A and 1250 A applications.

Characteristics
- Individually tested
- Safe and easy to handle
- Easy assembly

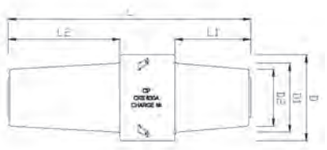
Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor

Voltage level
- U_0/U (U_m) 19/33 (36) kV

Test standards
- IEC 60137

Dimensions



D = Outer diameter

Scope of delivery
Set of 3 coupling elements, assembly material, assembly instructions

Type		L mm	L1 mm	L2 mm	D mm	D1 mm	D2 mm	Art.-No.
U_0/U (U_m) 19/33 (36) kV								
CKS 1250A 36kV		196.5	61.5	91	70	56	46	450152

CABLE SETS FOR SCREENED POLYMERIC CABLES

Separable connectors for 1-core cables



CPAS

End-plugs

for Cellplux separable connector type CTS 630A / 1250A

The CPAS End-plug establishes connection on front side of the CTS 630A / 1250A separable connectors. CPAS together with Test and earthing kit CPES makes it possible to carry out testing of cables installed with CTS separable connectors without connecting them to Switchgear.

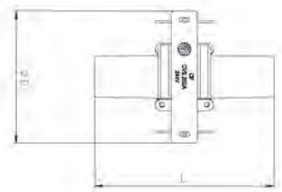
Characteristics
- Individually tested
- Safe and easy to handle
- Easy Assembly

Storage conditions/ Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

Dimensions



Scope of delivery
Set of 3 End-plugs,, assembly material, assembly instructions.

Type		Art.-No.
U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV		
CPAS		367094

CABLE SETS FOR SCREENED POLYMERIC CABLES

Separable connectors for 1-core cables



CPES

Test and earthing kit

for Cellplux separable connectors type CTS and type CTKS

The test and grounding set is used on the one hand to connect the respective cable conductors to a test voltage source and on the other hand to establish a reliable grounding of cable conductors on all Cellplux T-connectors type CTS and CTKS.

Characteristics
- Safe and easy to handle

Application/Suitability
- Cable testing
- Cable fault location
- Earthing for work
- Phase comparison

Test standards
- For cables according CENELEC HD 620, VDE 0275 part 620

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

Scope of delivery
Chest, test adapter (Length = 345 mm, Thread = M12), set of 3 earthing adapters (Ø Ball = 20mm), assembly material, assembly instructions

Optional accessory: Accessory kit ZS-CPS/CPES/CPAS (Art.-No. 365078)

Type		Art.-No.
U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV		
CPES		414307

Test	Test voltage	Test time
AC 45-60 Hz	max 2 U_0	max 60 minutes
VLF 0.1 Hz	max 3 U_0	max 60 minutes

CABLE SETS FOR SCREENED POLYMERIC CABLES

Separable connectors for 1-core cables



CPS

Test kit

for Cellplux separable connectors type CTS and type CTKS
The test set is used to connect the respective cable conductors to a test voltage source on all Cellplux T-connectors type CTS and CTKS.

Characteristics
- Safe and easy to handle

Application/Suitability
- Cable testing
- Cable fault location
- Phase comparison

Test standards
- For cables according CENELEC HD 620, VDE 0275 part 620

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

Scope of delivery
Chest, set of 3 test adapters (Length = 345 mm, Thread = M12), assembly material, assembly instructions

Optional accessory: Accessory kit ZS-CPS/CPES/CPAS (Art.-No. 365078)

Type		Art.-No.
U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV		
CPS		302227

Test	Test voltage	Test time
AC 45-60 Hz	max 2 U_0	max 60 minutes
VLF 0.1 Hz	max 3 U_0	max 60 minutes

Straight-through joints for 3-core cables



Dimensions



CHMSV3

3-core straight-through joint

with screw connectors, for all 3-core polymeric cables
Hybrid straight-through joints CHMSV3 are suitable for all 3-core polymeric-insulated cables (PVC, PE, XLPE, EPR). They allow the connection of cables with copper wire screen with different cross sections and conductor materials even with different cable designs concerning the semi-conductive layer (graphite-coated, removable or strippable). With screw connectors.

Characteristics
- Reliable stress control due to flexible silicone stress control elements
- For both copper and aluminium conductors
- For all cables with copper wire screen
- Wide conductor and cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation
- Suitable for a wide range of applications due to integrated screw connector

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Scope of delivery
Thick wall heat shrinkable insulation tubes, thick wall heat shrinkable outer tube with hot melt adhesive, silicone stress control element, copper braid tape, field control filling tape (blue), innovative screw connectors with conductive cover, screw connector for copper-wire screen, assembly material, assembly instructions

Optional accessory: EGA earthing kit for cables with tape screen (see Connecting technology)
Note: Straight-through joints with larger cross-section available on request.

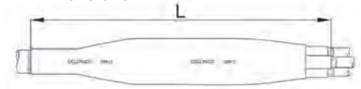
Type		L mm	min. Ø over core insulation after removal of the outer conductive layer mm	12 kV Nominal cross section mm²	17.5 kV Nominal cross section mm²	24 kV Nominal cross section mm²	36 kV Nominal cross section mm²	Art.-No.
U_0/U (U_m) 6/10 (12) kV - 6.35/11 (12) kV								
CHMSV3 12kV	25-95	1050	12.6	25 - 95				297348
	70-150	1050	14.7	70 - 150				297350
	95-240	1100	17.3	95 - 240				297260
	240-400	1250	23.1	240 - 400				297358
U_0/U (U_m) 8.7/15 (17.5) kV								
CHMSV3 17kV	25-95	1050	14.7		25 - 95			297349
	70-150	1050	18.0		70 - 150			297351
	95-240	1100	19.9		95 - 240			297310
	240-400	1250	24.0		240 - 400			297360
U_0/U (U_m) 12/20 (24) kV - 12.7/22 (24) kV								
CHMSV3 24kV	16-95	1050	14.7			16 - 95		297433
	50-150	1050	17.3			50 - 150		297352
	95-240	1100	19.9			95 - 240		297104
	240-400	1250	27.3			240 - 400		297361
U_0/U (U_m) 18/30 (36) kV - 19/33 (36) kV								
CHMSV3 36kV	50-150	1050	20.9				50 - 150	297353
	95-240	1100	24.2				95 - 240	297311
	240-400	1250	32.0				240 - 400	297362

CABLE SETS FOR SCREENED POLYMERIC CABLES

Straight-through joints for 3-core cables



Dimensions



CHMSV3-1

Straight-through joint

with screw connectors, for connecting from 3-core with three 1-core polymeric cables Hybrid straight-through joints CHMSV3-1 are suitable for connecting 3-core polymeric cables with three 1-core polymeric cables (PVC, PE, XLPE, EPR). They allow the connection of cables with copper wire screen with different cross sections and conductor materials even with different cable designs concerning the semi-conductive layer (graphite-coated, removable or strippable). With screw connectors.

Characteristics
- Reliable stress control due to flexible silicone stress control elements
- For both copper and aluminium conductors
- For all cables with copper wire screen
- Wide conductor and cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation
- Suitable for a wide range of applications due to integrated screw connector

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Scope of delivery
Thick wall heat shrinkable insulation tubes, thick wall heat shrinkable outer tube with hot melt adhesive, silicone stress control element, copper braid tape, field control filling tape (blue), innovative screw connectors with conductive cover, screw connector for copper-wire screen, assembly material, assembly instructions

Optional accessory: EGA earthing kit for cables with tape screen (see Connecting technology)
Note: Straight-through joints with larger cross-section available on request.

Type		L mm	min. Ø over core insulation after removal of the outer conductive layer mm	12 kV Nominal cross section mm²	17.5 kV Nominal cross section mm²	24 kV Nominal cross section mm²	36 kV Nominal cross section mm²	Art.-No.
U_0/U (U_m) 6/10 (12) kV - 6.35/11 (12) kV								
CHMSV3-1 12kV	25-95	900	12.6	25 - 95				297449
	70-150	900	14.7	70 - 150				297462
	95-240	900	17.3	95 - 240				297442
	240-400	1000	23.1	240 - 400				297466
U_0/U (U_m) 8.7/15 (17.5) kV								
CHMSV3-1 17kV	25-95	900	14.7		25 - 95			297460
	70-150	900	18.0		70 - 150			297463
	95-240	900	19.9		95 - 240			297443
	240-400	1000	24.0		240 - 400			297467
U_0/U (U_m) 12/20 (24) kV - 12.7/22 (24) kV								
CHMSV3-1 24kV	16-95	900	14.7			16 - 95		297461
	50-150	900	17.3			50 - 150		297464
	95-240	900	19.9			95 - 240		297441
	240-400	1000	27.3			240 - 400		297468
U_0/U (U_m) 18/30 (36) kV - 19/33 (36) kV								
CHMSV3-1 36kV	50-150	900	20.9				50 - 150	297465
	95-240	900	24.2				95 - 240	297444
	240-400	1000	32.0				240 - 400	297469

Straight-through joints for 3-core cables



CHM3
3-core straight-through joint
for all 3-core polymeric cables
Hybrid straight-through joints CHM3 are suitable for all 3-core polymeric-insulated cables (PVC, PE, XLPE, EPR). They allow the connection of cables with different cross sections and conductor materials even with different cable designs concerning the semi-conductive layer (graphite-coated, removable or strippable) and screen design (copper wire or tape screen). Suitable for compression connectors.

Dimensions



Characteristics
- Reliable stress control due to flexible silicone stress control elements
- Wide conductor and cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

Note
- 12 kV joints must be used for 7.2 kV cables. (Check minimum diameter over conductor insulation.)

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Scope of delivery
Thick wall heat shrinkable insulation tubes, thick wall heat shrinkable outer tube with hot melt adhesive, silicone stress control element, copper braid tube, pressure springs, field control filling tape (blue), assembly material, assembly instructions

Optional accessory: Compression connectors (see Connecting technology)
Note: Straight-through joints with larger cross-section available on request.

Type		L mm	min. Ø over core insulation after removal of the outer conductive layer mm	max. Connector-Ø mm	max. Connector length mm	Nominal cross section mm² 12 kV	17.5 kV	24 kV	36 kV	Art.-No.
U_0/U (U_m) 6/10 (12) kV - 6.35/11 (12) kV										
CHM3 12kV	10-25	1200	9.9	16	90	10 - 25				194293
	35-95	1200	12.6	25	135	35 - 95				194294
	95-240	1200	17.3	32	145	95 - 240				194295
	150-300	1200	19.9	40	200	150 - 300				194296
U_0/U (U_m) 8.7/15 (17.5) kV										
CHM3 17kV	35-95	1200	12.6	25	135		35 - 95			194297
	70-240	1200	17.3	32	145		70 - 240			194298
	120-300	1200	19.9	34	150		120 - 300			194299
	240-400	1200	23.1	40	200		240 - 400			194300
U_0/U (U_m) 12/20 (24) kV - 12.7/22 (24) kV										
CHM3 24kV	10-35	1200	12.6	20	100			10 - 35		194301
	50-150	1200	17.3	25	135			50 - 150		194302
	70-240	1200	19.9	32	145			70 - 240		194303
	150-300	1200	23.1	40	200			150 - 300		194304
U_0/U (U_m) 18/30 (36) kV - 19/33 (36) kV										
CHM3 36kV	35-70	1200	19.9	20	110				35 - 70	194305
	50-150	1200	23.1	25	135				50 - 150	194306
	150-300	1200	27.3	38	200				150 - 300	194307

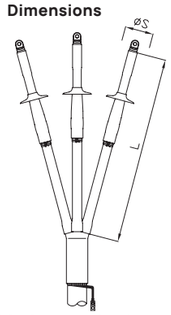
CABLE SETS FOR SCREENED POLYMERIC CABLES

Cable terminations for 3-core cables



CHESK-3I(A)
3-core indoor cable termination
with screw cable lugs, for all 3-core polymeric cables
Hybrid cable terminations CHESK-3I(A) are suitable for all 3-core polymeric insulated cables (PVC, PE, XLPE, EPR) with different types of semi-conductive layers (graphite-coated, removable or strippable) and screen design (copper wire or tape). With screw cable lugs.

Dimensions



Ø S = Diameter of cable shed

Characteristics
- Flexible silicone stress control elements ensure reliable stress control under all operating conditions
- Combination of slip-on and heat shrinkable components
- Wide cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

Note
- 12 kV cable terminations must be used for 7.2 kV cables. (Check minimum diameter over conductor insulation.)

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Scope of delivery
Spreader cap, heat shrinkable tube (tracking resistant), heat shrinkable tube, silicone stress control elements, silicone sheds, binding wire, sealing tape, screw cable lugs, assembly material, assembly instructions

Optional accessory: EGA earthing kit for cables with tape screen (see Connecting technology)

Type		L mm	min. Ø over core insulation after removal of the outer conductive layer mm	Number of sheds per phase	Ø S mm	Nominal cross section mm² 12 kV	17.5 kV	24 kV	36 kV	Art.-No.
U_0/U (U_m) 6/10 (12) kV - 6.35/11 (12) kV										
CHESK-3I(A) 12kV	25-95	600	12.6			25 - 95				309800
	95-240	600	17.3			95 - 240				309801
	240-400	600	19.9			240 - 400				309802
U_0/U (U_m) 12/20 (24) kV - 12.7/22 (24) kV										
CHESK-3I(A) 24kV	25-95	600	17.3	1	85		25 - 95	25 - 95		309806
	95-240	600	19.9	1	85		95 - 240	95 - 240		309807
	240-400	600	27.3	1	115		240 - 400	240 - 400		309808
U_0/U (U_m) 18/30 (36) kV - 19/33 (36) kV										
CHESK-3I(A) 36kV	25-95	800	19.9	2	85				25 - 95	309810
	95-240	800	23.1	2	85				95 - 240	309811
	240-400	800	27.3	2	115				240 - 400	309812

Cable terminations for 3-core cables



CHE-3I(A)

3-core indoor cable termination

for all 3-core polymeric cables

Hybrid cable terminations CHE-3I(A) are suitable for all 3-core polymeric-insulated cables (PVC, PE, XLPE, EPR) with different types of semi-conductive layers (graphite-coated, removable or strippable) and screen design (copper wire or tape). Suitable for compression cable lugs.

Characteristics
- Flexible silicone stress control elements ensure reliable stress control under all operating conditions
- Combination of slip-on and heat shrinkable components
- Wide cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life
- Unlimited shelf life

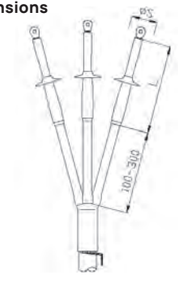
Application/Suitability
- Indoor

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

Note
- 12 kV cable terminations must be used for 7.2 kV cables. (Check minimum diameter over conductor insulation.)

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Dimensions



Ø S = Diameter of cable shed

Scope of delivery
Spreader cap, heat shrinkable tube (tracking resistant), heat shrinkable tube, silicone stress control elements, silicone sheds, pressure spring, sealing tape, assembly material, assembly instructions

Optional accessory: Cable lugs (see Connecting technology)
EGA earthing kit for cables with tape screen (see Connecting technology)
Note: Other cable terminations available on request.

Type	L mm	min. Ø over core insulation after removal of the outer conductive layer mm	Number of sheds per phase	Ø S mm	12 kV	17.5 kV	24 kV	36 kV	Art.-No.
					Nominal cross section mm²				
U_0/U (U_m) 6/10 (12) kV - 6.35/11 (12) kV									
CHE-3I(A) 12kV	10-25	9.9			10 - 25				146228
	25-95	12.6			25 - 95				146216
	95-240	17.3			95 - 240				146217
	150-400	19.9			150 - 400				146218
U_0/U (U_m) 8.7/15 (17.5) kV									
CHE-3I(A) 17kV	16-50	12.6	1	85		16 - 50			195365
	70-240	17.3	1	85		70 - 240			171761
	150-300	19.9	1	85		150 - 300			171762
	185-400	23.1	1	85		185 - 400			171763
U_0/U (U_m) 12/20 (24) kV - 12.7/22 (24) kV									
CHE-3I(A) 24kV	10-35	12.6	1	85			10 - 35		146300
	25-95	17.3	1	85			25 - 95		146302
	70-240	19.9	1	85			70 - 240		146301
	120-300	23.1	1	85			120 - 300		146297
U_0/U (U_m) 18/30 (36) kV - 19/33 (36) kV									
CHE-3I(A) 36kV	35-70	19.9	2	85				35 - 70	146158
	50-150	23.1	2	85				50 - 150	146159
	150-400	27.3	2	115				150 - 400	146160

CABLE SETS FOR SCREENED POLYMERIC CABLES

Cable terminations for 3-core cables



CHE-3I-T

3-core indoor cable termination

for 3-core polymeric flexible cables

Hybrid cable terminations CHE-3I are suitable for 3-core polymeric-insulated flexible cables of type: EpN 78, NTSCGEWOEU. Suitable for compression cable lugs.

Characteristics
- Flexible silicone stress control elements ensure reliable stress control under all operating conditions
- Combination of slip-on and heat shrinkable components
- Wide cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation

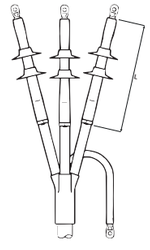
Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor

Voltage level
- U_0/U (U_m) 3,6/6 (7,2) - 12/20 (24) kV

Test standards
- CENELEC HD 629.1

Dimensions



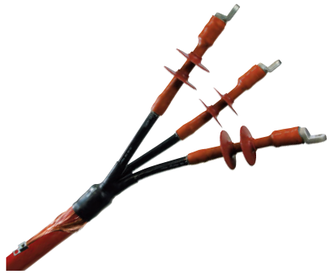
Ø S = Diameter of cable shed

Scope of delivery
Spreader cap, heat shrinkable tube (tracking resistant), heat shrinkable tube, silicone stress control elements, silicone sheds, pressure spring, sealing tape, assembly material, working instructions

Optional accessory: Cable lugs (see Connecting technology)
Note: Other customised terminations available on request

Type	L mm	min. Ø over core insulation after removal of the outer conductive layer mm	Number of sheds per phase	Ø S mm	7.2 kV	12 kV	24 kV	Art.-No.
					Nominal cross section, class 5 (IEC 60228) mm²			
U_0/U (U_m) 3,6/6 (7,2) kV - 3,8/6,6 (7,2) kV								
CHE-3I-T 7.2 kV	300	18.2	-	-	70-120			169459
U_0/U (U_m) 6/10 (12) kV - 6,35/11 (12) kV								
CHE-3I-T 12 kV	300	13.2	-	-		25-50		146309
	300	18.2	-	-		70-120		146310
U_0/U (U_m) 12/20 (24) kV - 12,7/22 (24) kV								
CHE-3I-T 24 kV	400	18.2	1	21			25-70	167690

Cable terminations for 3-core cables



CHESK-3F(A)

3-core outdoor cable termination

with screw cable lugs, for all 3-core polymeric cables

Hybrid cable terminations CHESK-3F(A) are suitable for all 3-core polymeric-insulated cables (PVC, PE, XLPE, EPR) with different types of semi-conductive layers (graphite-coated, removable or strippable) and screen design (copper wire or tape). With screw cable lugs.

Characteristics
- Flexible silicone stress control elements ensure reliable stress control under all operating conditions
- Combination of slip-on and heat shrinkable components
- Wide cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life
- Unlimited shelf life

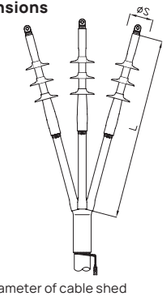
Application/Suitability
- Outdoor

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

Note
- 12 kV cable terminations must be used for 7.2 kV cables. (Check minimum diameter over conductor insulation.)

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Dimensions



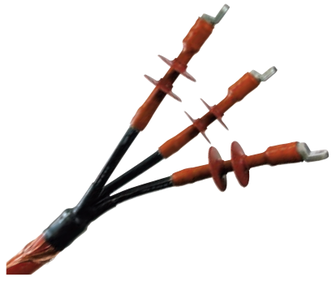
Ø S = Diameter of cable shed

Scope of delivery
Spreader cap, heat shrinkable tube (tracking resistant), heat shrinkable tube, silicone stress control elements, silicone sheds, binding wire, sealing tape, screw cable lugs, assembly material, assembly instructions

Optional accessory: EGA earthing kit for cables with tape screen (see Connecting technology)

Type		L mm	min. Ø over core insulation after removal of the outer conductive layer mm	Number of sheds per phase	Ø S mm	12 kV	17.5 kV	24 kV	36 kV	Art.-No.
						Nominal cross section mm²				
U_0/U (U_m) 6/10 (12) kV - 6.35/11 (12) kV										
CHESK-3F(A) 12kV	25-95	1200	12.6	1	80	25 - 95				309813
	95-240	1200	17.3	1	85	95 - 240				309815
	240-400	1200	19.9	1	85	240 - 400				309816
U_0/U (U_m) 12/20 (24) kV - 12.7/22 (24) kV										
CHESK-3F(A) 24kV	25-95	1200	17.3	3	85		25 - 95	25 - 95		309820
	95-240	1200	19.9	3	85		95 - 240	95 - 240		309821
	240-400	1200	27.3	3	115		240 - 400	240 - 400		309822
U_0/U (U_m) 18/30 (36) kV - 19/33 (36) kV										
CHESK-3F(A) 36kV	25-95	1200	19.9	4	85				25 - 95	309823
	95-240	1200	23.1	4	85				95 - 240	309824
	240-400	1200	27.3	4	115				240 - 400	309583

Cable terminations for 3-core cables



CHE-3F(A)

3-core outdoor cable termination

for all 3-core polymeric cables
Hybrid cable terminations CHE-3F(A) are suitable for all 3-core polymeric-insulated cables (PVC, PE, XLPE, EPR) with different types of semi-conductive layers (graphite coated, removable or strippable) and screen design (copper wire or tape). Suitable for compression cable lugs.

Characteristics
- Flexible silicone stress control elements ensure reliable stress control under all operating conditions
- Combination of slip-on and heat shrinkable components
- Wide cross-section range
- Quick, safe and easy assembly

Storage conditions/Shelf life
- Unlimited shelf life
- Ready for immediate operation

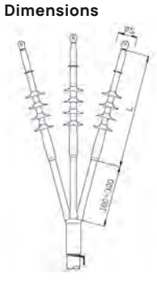
Application/Suitability
- Outdoor

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

Note
- 12 kV cable terminations must be used for 7.2 kV cables. (Check minimum diameter over conductor insulation.)

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Dimensions



Ø S = Diameter of cable shed

Scope of delivery
Spreader cap, heat shrinkable tube (tracking resistant), heat shrinkable tube, silicone stress control elements, silicone sheds, pressure spring, sealing tape, assembly material, assembly instructions

Optional accessory: Cable lugs (see Connecting technology)
EGA earthing kit for cables with tape screen (see Connecting technology)

Note: Other cable terminations available on request.

Type		L mm	min. Ø over core insulation after removal of the outer conductive layer mm	Number of sheds per phase	Ø S mm	12 kV	17.5 kV	24 kV	36 kV	Art.-No.
						Nominal cross section mm²				
U_0/U (U_m) 6/10 (12) kV - 6.35/11 (12) kV										
CHE-3F(A) 12kV	10-25	300	9.9	1	80	10 - 25				146226
	25-95	300	12.6	1	85	25 - 95				146220
	95-240	300	17.3	1	85	95 - 240				146222
	150-400	300	19.9	1	85	150 - 400				146224
U_0/U (U_m) 8.7/15 (17.5) kV										
CHE-3F(A) 17kV	16-50	500	12.6	2	85		16 - 50			195366
	70-240	500	17.3	2	85		70 - 240			171756
	150-300	500	19.9	2	85		150 - 300			171757
	185-400	500	23.1	2	85		185 - 400			146296
U_0/U (U_m) 12/20 (24) kV - 12.7/22 (24) kV										
CHE-3F(A) 24kV	10-35	500	12.6	3	85			10 - 35		146303
	25-95	500	17.3	3	85			25 - 95		146304
	70-240	500	19.9	3	85			70 - 240		146306
	120-300	500	23.1	3	85			120 - 300		146298
U_0/U (U_m) 18/30 (36) kV - 19/33 (36) kV										
CHE-3F(A) 36kV	35-70	700	19.9	4	85				35 - 70	146234
	50-150	700	23.1	4	85				50 - 150	146235
	150-400	700	27.3	4	115				150 - 400	146242

CABLE SETS FOR MASS-IMPREGNATED PAPER CABLES

Overview: BBC Cellpack Cable sets selection table

Products	Belted cables			H-Type cables			3 lead sheath cables		
	Transition joints	Straight-through joints	Cable termina-tions	Transition joints	Straight-through joints	Cable termina-tions	Transition joints	Straight-through joints	Cable termina-tions
CHMPRSV3-1	●	–	–	●	–	–	–	–	–
CHMPR3-1	●	–	–	●	–	–	–	–	–
CHMPR3	●	–	–	●	–	–	–	–	–
CHMP(H) SV3-1	–	–	–	●	–	–	–	–	–
CHMP(H)3-1	–	–	–	●	–	–	–	–	–
CHMP(3Pb) SV3-1	–	–	–	–	–	–	●	–	–
CHMP(3Pb)3-1	–	–	–	–	–	–	●	–	–
CHMP(3Pb)3	–	–	–	–	–	–	●	–	–
CHMPPR3	–	●	–	–	●	–	–	–	–

● suitable
– non suitable

CABLE SETS FOR MASS-IMPREGNATED PAPER CABLES

Transition joints



Dimensions



CHMPRSV3-1
Transition joint

with screw connectors, from belted cables/H-Type cables to 1-core polymeric cables

Hybrid transition joints CHMPRSV3-1 for transition to three 1-core polymeric-insulated cables, are suitable for belted cables and H-Type cables up to 17.5 kV. With screw connectors.

Characteristics
- Reliable stress control due to flexible silicone stress control elements
- Wide cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation
- Suitable for a wide range of applications due to innovative integrated screw connector

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level
- U0/U (Um) 6/10 (12) kV - 8.7/15 (17.5) kV

Test standards
- CENELEC HD 629.2 (DIN VDE 0278, part 629-2)

Scope of delivery
Spreader cap, thick wall heat shrinkable outer tube with hot melt adhesive, oil barrier tubing, heat shrinkable tubes, silicone stress control elements, earthing wire, copper braid tape, pressure spring, screw connector for copper-wire screen, assembly material, sealing tape, field control filling tape (blue), fire protection wrapping, innovative screw connectors with conductive cover, assembly instructions

				12 kV	17.5 kV	
Type		L mm	min. Ø over core insulation after removal of the outer conductive layer mm	Nominal cross section mm²		Art.-No.
U_0/U (U_m) 6/10 (12) kV - 8.7/15 (17.5) kV						
CHMPRSV3-1 17kV	35-95	1200	12.6	50 - 95	35 - 95	264988
	70-150	1200	17.3	95 - 150	70 - 150	265205
	95-240	1200	17.3	95 - 240	95 - 240	264769
	240-400	1200	23.1	240 - 400	240 - 400	265501



CHMPR3-1
Transition joint
from belted cables/H-Type cables to three 1-core polymeric cables

Hybrid transition joints CHMPR3-1 for transition to three 1-core polymeric-insulated cables, are suitable for belted cables and H-Type cables up to 17.5 kV. The scope of application can be reduced by an appropriate padding set for the mass-impregnated paper cable. Suitable for compression connectors.

Characteristics
- Reliable stress control due to flexible silicone stress control elements
- Wide cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level
- U0/U (Um) 6/10 (12) kV - 8.7/15 (17.5) kV

Test standards
- CENELEC HD 629.2 (DIN VDE 0278, part 629-2)

Dimensions



Scope of delivery
Spreader cap, thick wall heat shrinkable outer tube with hot melt adhesive, oil barrier tubing, heat shrinkable tubes, silicone stress control elements, earthing wire, copper braid tape, pressure spring, assembly material, sealing tape, field control filling tape (blue), fire protection wrapping, assembly instructions

Optional accessory: Compression connectors (see Connecting technology)
Note: Other transition joints available on request.

Type		L mm	min. Ø over core insulation after removal of the outer conductive layer mm	12 kV Nominal cross section mm²	12 kV max. Connector-Ø mm	12 kV max. Connector length mm	17.5 kV Nominal cross section mm²	17.5 kV max. Connector-Ø mm	17.5 kV max. Connector length mm	Art.-No.
U_0/U (U_m) 6/10 (12) kV - 8.7/15 (17.5) kV										
CHM-PR3-1 17kV	35-50	1100	12.6	35-70	25	130	35 - 50	20	110	197603
	70-240	1100	17.3	95 - 240	34	145	70 - 240	34	145	197604 [1]
	240-400	1100	23.1	300 - 400	42	170	240 - 400	42	170	197606

[1] Padding kit PS(G+H) 17/1 (Art.-No.197690) to be used for 25 - 50 mm² (17.5 kV) and (25) 35 - 70 mm² (12 kV).

CABLE SETS FOR MASS-IMPREGNATED PAPER CABLES

Transition joints



CHMPR3
Transition joint
from belted cables/H-Type cables to 3-core polymeric cables

Hybrid transition joints CHMPR3 for transition to one 3-core polymeric-insulated cable, are suitable for belted cables and H-Type cables up to 17.5 kV. The scope of application can be reduced by an appropriate padding set for the mass-impregnated paper cable. Suitable for compression connectors.

Characteristics
- Reliable stress control due to flexible silicone stress control elements
- Wide cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level
- U0/U (Um) 6/10 (12) kV - 8.7/15 (17.5) kV

Test standards
- CENELEC HD 629.2 (DIN VDE 0278, part 629-2)

Dimensions



Scope of delivery
Spreader cap, thick wall heat shrinkable outer tube with hot melt adhesive, oil barrier tubing, heat shrinkable tubes, silicone stress control elements, earthing wire, copper braid tape, pressure spring, assembly material, sealing tape, field control filling tape (blue), fire protection wrapping, assembly instructions

Optional accessory: Compression connectors (see Connecting technology)
Note: Other transition joints available on request.

Type		L mm	min. Ø over core insulation after removal of the outer conductive layer mm	12 kV Nominal cross section mm²	12 kV max. Connector-Ø mm	12 kV max. Connector length mm	17.5 kV Nominal cross section mm²	17.5 kV max. Connector-Ø mm	17.5 kV max. Connector length mm	Art.-No.
U_0/U (U_m) 6/10 (12) kV - 8.7/15 (17.5) kV										
CHM-PR3 17kV	35-50	1400	12.6	35 - 70	25	130	35 - 50	20	110	197618
	70-240	1400	17.3	95 - 240	34	145	70 - 240	34	145	197619 [1]
	240-400	1400	23.1	300 - 400	42	170	240 - 400	42	170	197620

[1] Padding kit PS(G+H) 17/1 (Art.-No.197690) to be used for 25 - 50 mm² (17.5 kV) and (25) 35 - 70 mm² (12 kV).

Transition joints



CHMP(H)SV3-1
Transition joint
with screw connectors, from H-Type cables to polymeric three 1-core cables

Hybrid transition joints CHMP(H)SV3-1 for transition to three 1-core polymeric-insulated cables, are suitable for H-Type cables for 24 kV. With screw connectors.

Characteristics
- Reliable stress control due to flexible silicone stress control elements
- Wide cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level
- U_0/U (U_m) 12/20 (24) kV - 12.7/22 (24) kV

Test standards
- CENELEC HD 629.2 (DIN VDE 0278, part 629-2)

Dimensions

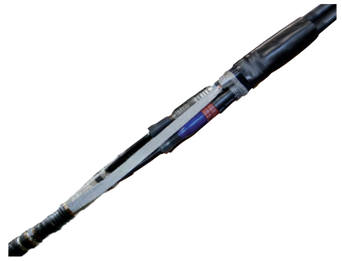


Scope of delivery
Spreader cap, thick wall heat shrinkable outer tube with hot melt adhesive, oil barrier tubing, heat shrinkable tubes, silicone stress control elements, earthing wire, copper braid tape, pressure spring, assembly material, sealing tape, field control filling tape (blue), fire protection wrapping, innovative screw connectors with conductive cover, assembly instructions

Type		L mm	min. Ø over core insulation after removal of the outer conductive layer mm	24 kV Nominal cross section mm²	Art.-No.
U_0/U (U_m) 12/20 (24) kV - 12.7/22 (24) kV					
CHMP(H)SV3-1 24kV	35-95	1100	17.3	35 - 95	336538
	70-150	1100	19.9	70 - 150	336550
	95-240	1100	19.9	95 - 240	336551

CABLE SETS FOR MASS-IMPREGNATED PAPER CABLES

Transition joints



CHMP(H)3-1
Transition joint
from H-Type cables to polymeric three 1-core cables

Hybrid transition joints CHMP(H)3-1 for transition to three 1-core polymeric-insulated cables, are suitable for H-Type cables from 24 to 36 kV. The scope of application can be reduced by an appropriate padding set for the mass-impregnated paper cable. Suitable for compression connectors.

Characteristics
- Reliable stress control due to flexible silicone stress control elements
- Wide cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level
- U_0/U (U_m) 12/20 (24) kV - 19/33 (36) kV

Test standards
- CENELEC HD 629.2 (DIN VDE 0278, part 629-2)

Dimensions



Scope of delivery
Spreader cap, thick wall heat shrinkable outer tube with hot melt adhesive, oil barrier tubing, heat shrinkable tubes, silicone stress control elements, earthing wire, copper braid tape, pressure spring, assembly material, sealing tape, field control filling tape (blue), fire protection wrapping, assembly instructions

Optional accessory: Compression connectors (see Connecting technology)
Note: Other transition joints available on request.

Type		L mm	min. Ø over core insulation after removal of the outer conductive layer mm	max. Connector-Ø mm	max. Connector length mm	24 kV Nominal cross section mm²	36 kV Nominal cross section mm²	Art.-No.
U_0/U (U_m) 12/20 (24) kV - 12.7/22 (24) kV								
CHMP(H)3-1 24kV	35-70	1200	17.3	20	110	35 - 70		197608
	95-240	1200	19.9	34	145	95 - 240		197609 [1)]
	185-300	1200	23.1	42	145	185 - 300		197610
U_0/U (U_m) 18/30 (36) kV - 19/33 (36) kV								
CHMP(H)3-1 36kV	35-50	1200	19.9	20	110		35 - 50	197614
	70-150	1200	23.1	28	145		70 - 150	197616
	150-300	1200	27.3	36	145		150 - 300	197617

[1)] Padding kit PS(H) 24/1 (Art.-No.197692) to be used for 35 - 70 mm² (24 kV).

Transition joints



CHMP(3Pb)SV3-1
Transition joint
with screw connectors, for 3 lead sheath cables to three 1-core polymeric cables

Hybrid transition joints CHMP(3Pb)SV3-1 for transition to three 1-core polymeric-insulated cables are suitable for all 3 lead sheath cables for 24 kV. With screw connectors.

Characteristics
- Reliable stress control due to flexible silicone stress control elements
- Wide cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation

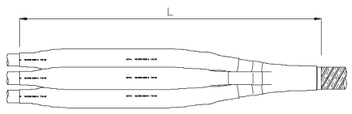
Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level
- U_0/U (U_m) 12/20 (24) kV - 12.7/22 (24) kV

Test standards
- CENELEC HD 629.2 (DIN VDE 0278, part 629-2)

Dimensions



Scope of delivery
Spreader cap, thick wall heat shrinkable outer tube with hot melt adhesive, oil barrier tubing, heat shrinkable tubes, silicone stress control elements, earthing wire, copper braid tape, pressure spring, innovative screw connectors with conductive cover, assembly material, sealing tape, field control filling tape (blue), fire protection wrapping, assembly instructions

Type		L mm	min. Ø over core insulation after removal of the outer conductive layer mm	24 kV Nominal cross section mm²	Art.-No.
U_0/U (U_m) 12/20 (24) kV - 12.7/22 (24) kV					
CHMP(3Pb)SV3-1 24kV	35-95	1000	17.3	35 - 95	336260
	50-150	1000	17.3	50 - 150	336261
	95-240	1000	19.9	95 - 240	336263
	240-400	1000	27.3	240 - 400	336264

CABLE SETS FOR MASS-IMPREGNATED PAPER CABLES

Transition joints



CHMP(3Pb)3-1
Transition joint
for 3 lead sheath cables to three 1-core polymeric cables

Hybrid transition joints CHMP(3Pb)3-1 for transition to three 1-core polymeric-insulated cables are suitable for all 3 lead sheath cables up to 36 kV. The scope of application can be reduced by an appropriate padding set for the mass-impregnated paper cable. Suitable for compression connectors.

Characteristics
- Reliable stress control due to flexible silicone stress control elements
- Wide cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation

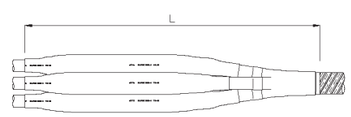
Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level
- U_0/U (U_m) 12/20 (24) kV - 19/33 (36) kV

Test standards
- CENELEC HD 629.2 (DIN VDE 0278, part 629-2)

Dimensions



Scope of delivery
Spreader cap, thick wall heat shrinkable outer tube with hot melt adhesive, oil barrier tubing, heat shrinkable tubes, silicone stress control elements, earthing wire, copper braid tape, pressure spring, assembly material, sealing tape, field control filling tape (blue), fire protection wrapping, assembly instructions

Optional accessory: Compression connectors (see Connecting technology)

Type		L mm	min. Ø over core insulation after removal of the outer conductive layer mm	max. Connector-Ø mm	max. Connector length mm	24 kV Nominal cross section mm²	36 kV Nominal cross section mm²	Art.-No.
U_0/U (U_m) 12/20 (24) kV - 12.7/22 (24) kV								
CHMP(3Pb)3-1 24kV	16-25	1200	12.6	20	100	16 - 25		197631
	35-95	1200	17.3	25	110	35 - 95		197632
	95-240	1200	19.9	34	150	95 - 240		197633 [1)]
	185-300	1200	23.1	40	150	185 - 300		197634
U_0/U (U_m) 18/30 (36) kV - 19/33 (36) kV								
CHMP(3Pb)3-1 36kV	35-50	1200	19.9	20	110		35 - 50	197635
	70-150	1200	23.1	25	150		70 - 150	197636 [2)]
	150-300	1200	27.3	38	160		150 - 300	197637 [3)]

[1)] Padding kit PS(3Pb+Pb), (Art.-No.197699) to be used for 35 - 70 mm² (24 kV).
[2)] Padding kit PS(3Pb+Pb), (Art.-No.197701) to be used for 35 - 50 mm² (36 kV).
[3)] Padding kit PS(3Pb+Pb), (Art.-No.197702) to be used for 70 - 150 mm² (36 kV).

CABLE SETS FOR MASS-IMPREGNATED PAPER CABLES

Transition joints



CHMP(3Pb)3
Transition joint
for 3 lead sheath cables to 3-core polymeric cables

Hybrid transition joints CHMP(3Pb)3 for transition to one 3-core polymeric-insulated cables are suitable for all 3 lead sheath cables up to 36 kV. The scope of application can be reduced by an appropriate padding set for the mass-impregnated paper cable. Suitable for compression connectors.

Characteristics
- Reliable stress control due to flexible silicone stress control elements
- Wide cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level
- U_0/U (U_m) 12/20 (24) kV - 19/33 (36) kV

Test standards
- CENELEC HD 629.2 (DIN VDE 0278, part 629-2)

Dimensions



Scope of delivery
Spreader cap, thick wall heat shrinkable outer tube with hot melt adhesive, oil barrier tubing, heat shrinkable tubes, silicone stress control elements, earthing wire, copper braid tape, pressure spring, assembly material, sealing tape, field control filling tape (blue), fire protection wrapping, assembly instructions

Optional accessory: Compression connectors (see Connecting technology)

Type		L mm	min. Ø over core insulation after removal of the outer conductive layer mm	max. Connector-Ø mm	max. Connector length mm	Nominal cross section mm² 24 kV	Nominal cross section mm² 36 kV	Art.-No.
U_0/U (U_m) 12/20 (24) kV - 12.7/22 (24) kV								
CHMP(3Pb)3 24kV	16-25	1400	12.6	20	100	16 - 25		197641
	35-95	1400	17.3	25	110	35 - 95		197642
	95-240	1400	19.9	34	150	95 - 240		197643 [1]
	185-300	1400	23.1	40	150	185 - 300		197644
U_0/U (U_m) 18/30 (36) kV - 19/33 (36) kV								
CHMP(3Pb)3 36kV	35-50	1400	19.9	20	110		35 - 50	197645
	70-150	1400	23.1	25	150		70 - 150	197646 [2]
	150-300	1400	27.3	38	160		150 - 300	197647 [3]

[1] Padding kit PS(3Pb+Pb), (Art.-No.197699) to be used for 35 - 70 mm² (24 kV).
[2] Padding kit PS(3Pb+Pb), (Art.-No.197701) to be used for 35 - 50 mm² (36 kV).
[3] Padding kit PS(3Pb+Pb), (Art.-No.197702) to be used for 70 - 150 mm² (36 kV).

CABLE SETS FOR MASS-IMPREGNATED PAPER CABLES

Straight-through joints



CHMPPR3
Straight-through joint
for belted cables/H-Type cables up to 17.5 kV (MIND)

Hybrid straight-through joints CHMPPR3 are suitable for belted cables and H-Type cables up to 17.5 kV. Suitable for compression connectors.

Characteristics
- Wide cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 8.7/15 (17.5) kV

Test standards
- CENELEC HD 629.2 (DIN VDE 0278, part 629-2)

Dimensions



Scope of delivery
Spreader cap, thick wall heat shrinkable outer tube with hot melt adhesive, oil barrier tubing, heat shrinkable tubes, earthing wire, copper braid tape, pressure spring, assembly material, sealing tape, field control filling tape (blue), fire protection wrapping, assembly instructions

Optional accessory: Compression connectors (see Connecting technology)

Type		L mm	12 kV Nominal cross section mm²	12 kV max. Connector-Ø mm	12 kV max. Connector length mm	17.5 kV Nominal cross section mm²	17.5 kV max. Connector-Ø mm	17.5 kV max. Connector length mm	Art.-No.
U_0/U (U_m) 6/10 (12) kV - 8.7/15 (17.5) kV									
CHMPPR3 17kV	35-50	1400	35 - 70	25	130	35 - 50	20	110	197658
	70-240	1400	95 - 240	34	145	70 - 240	34	145	197659
	240-400	1400	300 - 400	42	170	240 - 400	42	170	197660

Heat shrinkable tubes



SRBB
Heat shrinkable medium wall tube
protection for busbar systems and reduction of minimum clearance, halogen-free, shrink ratio 3 : 1

Colours

Red brown

Characteristics
- Medium wall
- Stabilized against UV rays
- Halogen-free
- Tracking resistance in compliance with IEC 112
- Non-corrosive
- Resistant to bacteria and fungi

Storage conditions/Shelf life
- Unlimited shelf life
- Free of lead and cadmium
- Silicone free

Application/Suitability
- Allows for clearance reduction between busbars in medium voltage substations up to 36 kV
- Corrosion protection

Material
- Cross-linked polyolefin

Test standards
- Corresponds to IEC 60684-2

Scope of delivery
Medium wall heat shrinkable tube, on spool or in lengths

Note: A standard spool may include sections which have been tied together. Other lengths available on request.

Type		L m	Inner-Ø mm		Recovered wall thickness mm	Art.-No.
			before shrinking	after shrinking		
Spool I Colour: Red brown						
SRBB	19-6	30	19	6	2.3	201942
	35-11	30	35	11	2.5	201943
	50-18	30	50	18	2.7	201944
	80-26	30	80	26	2.8	201945
	120-40	30	120	40	3	201946
Lengths I Colour: Red brown						
SRBB	19-6	1	19	6	2.3	237858
	35-11	1	35	11	2.5	237859
	50-18	1	50	18	2.7	237860
	80-26	1	80	26	2.8	237861
	120-40	1	120	40	3	237862

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HEAT SHRINKABLE COMPONENTS

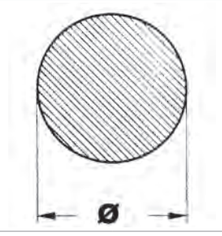
Heat shrinkable tubes

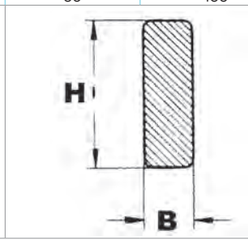
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SRBB
Heat shrinkable medium wall tube

Technical data	Value	Test standard
Physical properties		
Hardness	39 Shore D	DIN 53 505
Elongation at break	500 %	IEC 60684-2
Tensile strength at break	16 MPa	IEC 60684-2
Longitudinal shrinkage	+5 % up to -10 %	IEC 60684-2
Shrink ratio	3:1	IEC 60684-2
Eccentricity		
expanded	50 %	
recovered	85 %	IEC 60684-2
Thermal properties		
Operating temperature range	-40 °C up to 100 °C	DIN EN 60684-3-283
Shrinkage temperature	> 125 °C	
Burning behaviour	not self-extinguishing	IEC 60684-2 method C
Flexibility at low temperatures	-40 °C	IEC 60684-2
Electrical properties		
Dielectric strength	20 kV/mm	IEC 60684-2
Specific volume resistivity	10^{12} Ω x cm	IEC 60684-2
Chemical properties		
Corrosion	None	IEC 60684-2
Resistance to fungus and decay	Rate 1	IEC 60684-2

Type		Recommended application range Busbar types: round shaped Diameter [Ø] mm		Recommended application range Busbar types: rectangular shaped Width [B] + Height [H] mm	
		min.	max.	min.	max.
SRBB	19-6	6.5	12	12	18
	35-11	13	25	22	36
	50-18	18	35	31	60
	80-26	28	65	55	95
	120-40	45	100	80	150





Minimum allowance between the busbars

Busbar types	Minimum allowance mm			
	12 kV	17.5 kV	24 kV	36 kV
round shaped				
without insulation PH/PH and PH/E	120	160	220	320
with insulation PH/PH	50	65	90	145
with insulation PH/E	60	80	120	200
rectangular shaped				
without insulation PH/PH and PH/E	120	180	220	320
with insulation PH/PH	60	80	110	195
with insulation PH/E	70	100	145	280

Heat shrinkable tubes



SRAT
Heat shrinkable thick wall tube
halogen-free, shrink ratio 3 : 1

Characteristics
- Thick wall
- Stabilized against UV rays
- Halogen-free
- Non-corrosive
- Infusible
- Highly resistant to electrical breakdown
- Tracking resistance
- High tensile strength
- Free of lead and cadmium
- Silicone free

Storage conditions/Shelf life
- Unlimited shelf life

Application/Suitability
- Insulation tube for conductors in cable terminations of 3.6 to 42 kV
- Corrosion protection

Material
- Cross-linked polyolefin

Test standards
- Corresponds to IEC 60684-2

Colours

Red brown

Scope of delivery
Thick wall heat shrinkable tube, on spool or in lengths

Note: A standard spool may include sections which have been tied together.
Other lengths available on request.

Type		L m	Inner-Ø mm		Recovered wall thickness mm	Art.-No.
			before shrinking	after shrinking		
Spool I Colour: Red brown						
SRAT	19-6	30	19	6	3	144884
	29-9	30	29	9	3	144882
	38-12	30	38	12	3.1	144880
	48-15	30	48	15	3.1	144878
	60-20	30	60	20	3.1	144886
	80-26	30	80	26	3.1	144876
Lengths I Colour: Red brown						
SRAT	19-6	1	19	6	3	144888
	29-9	1	29	9	3	144892
	38-12	1	38	12	3.1	144898
	48-15	1	48	15	3.1	132464
	60-20	1	60	20	3.1	144921
	80-26	1	80	26	3.1	144935
	120-40	1	120	40	3.1	144943

HEAT SHRINKABLE COMPONENTS

Heat shrinkable tubes

→ Continuation

SRAT
Heat shrinkable thick wall tube

Technical data	Value	Test standard
Physical properties		
Hardness	44 Shore D	DIN 53505
Elongation at break	350 %	IEC 60684-2
Tensile strength at break	12 MPa	IEC 60684-2
Longitudinal shrinkage	+5 % bis -10 %	IEC 60684-2
Shrink ratio	3:1	IEC 60684-2
Eccentricity expanded recovered	 60 % 85 %	 IEC 60684-2
Thermal properties		
Operating temperature range	-40 °C bis 100 °C	IEC 60684-2
Shrinkage temperature	> 125 °C	
Flame propagation	burning time <1 s	IEC 60684-2 method C
Flexibility at low temperatures	-40 °C	IEC 60684-2
Thermal ageing (168 h at 150 °C) Elongation at break Tensile strength at break	 300 % 11 MPa	 IEC 60684-2
Electrical properties		
Dielectric strength	20 kV/mm	IEC 60684-2
Resistance to tracking	class 2A 2.5 kV – 1 h 2.75 kV – 1 h 3.0 kV – 1 h 3.25 kV – 20 min	 IEC 60684-2
Chemical properties		
Resistance to mould growth Elongation at break Tensile strength at break	 350 % 10 MPa	 IEC 60684-2
Weather resistance Elongation at break Tensile strength at break	 250 % 9 MPa	
	class 2A 2.5 kV – 1h	 IEC 60684-2

Remarque: Toutes modifications techniques réservées.

Overview: Cellpack Electrical insulation and mounting tapes / Additional tapes

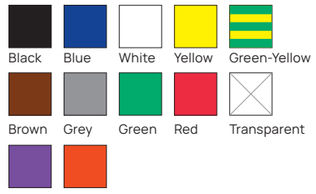
Products	Properties						
	insulating	self-amalgamating	inscribable	stabilized against UV rays	conductive	heat-proof	colour-fast
Electrical insulation and mounting tapes							
No. 128	●	–	–	●	–	–	–
No. 328	●	–	–	●	–	–	–
No. 90	–	–	●	–	–	–	–
No. 64	–	●	–	–	–	–	–
No. 63	–	–	–	–	●	–	–
No. 60, No. 62	●	●	–	●	–	–	–
No. 61	–	●	–	–	●	–	–
Premio 845	–	–	–	●	–	–	–
Premio 1130	●	–	●	–	–	●	–
Premio 1180	●	–	●	–	–	●	–
Premio 2281	–	–	–	–	●	–	–
Premio 5584	–	–	–	●	–	–	–
Additional tapes							
HKB	●	–	–	–	–	–	–
No. 26	–	–	–	–	–	–	●
No. 72	–	●	–	–	–	–	–
KRS	–	●	–	–	–	–	–

● available
– not available

ELECTRICAL INSULATION AND MOUNTING TAPES



Colours



No. 128

PVC insulation tape

for marking, bundling and insulating

Flexible, UV-resistant PVC insulation tape.

Characteristics
- Synthetic rubber adhesive
- Very good resistance to abrasion, corrosion and moisture
- Stabilized against UV rays
- High flexibility
- Withstands high electrical stresses
- Good adhesive properties
- Easy processing
- Oil-resistant
- Resistant to dilute acids and alkalis

Application/Suitability
- Sealing
- Padding of cable insulation
- Bundling
- Reinforcing
- As insulation of electrical and telecommunication cables
- Colour-coding

Test standards
- Approved according VDE Type IEC 60454-3-1-5/F-PVCP/90 (except transparent)

Material
- PVC

Scope of delivery
PVC insulation tape

Type	Colours	Length m	Width mm	Thickness mm	Art.-No.
No. 128	Black	10	15	0.15	145821
	Blue	10	15	0.15	145825
	Yellow	10	15	0.15	145826
	Red	10	15	0.15	145827
	White	10	15	0.15	145828
	Green	10	15	0.15	145829
	Violet	10	15	0.15	145830
	Grey	10	15	0.15	145831
	Brown	10	15	0.15	145832
	Orange	10	15	0.15	145822
	Green-Yellow	10	15	0.15	145823
	Transparent	10	15	0.15	145824
	Black	10	19	0.15	145806
	Blue	10	19	0.15	145810
	Yellow	10	19	0.15	145811
	Red	10	19	0.15	145812
	White	10	19	0.15	145813
	Green	10	19	0.15	145814
	Violet	10	19	0.15	145815
	Grey	10	19	0.15	145816
	Brown	10	19	0.15	145817
	Orange	10	19	0.15	145807
	Green-Yellow	10	19	0.15	145808

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→ Continuation

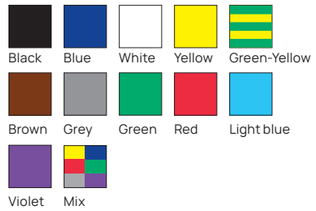
Type	Colours	Length m	Width mm	Thickness mm	Art.-No.
No. 128	Black	25	19	0.15	145794
	Blue	25	19	0.15	145798
	Yellow	25	19	0.15	145799
	Red	25	19	0.15	145800
	White	25	19	0.15	145801
	Green	25	19	0.15	145802
	Violet	25	19	0.15	145803
	Grey	25	19	0.15	145804
	Brown	25	19	0.15	145805
	Orange	25	19	0.15	145795
	Green-Yellow	25	19	0.15	145796
	Transparent	25	19	0.15	145797
	Black	25	25	0.15	145773
	Transparent	25	25	0.15	145775
	Black	25	30	0.15	145784
	Yellow	25	30	0.15	145787
	White	25	30	0.15	145789
	Grey	25	30	0.15	145792
	Black	25	38	0.15	145771
	Black	25	50	0.15	145772

Technical data	Value	Test standard
min. Elongation at break	170 %	IEC 60454-2
Adhesive strength	1,8 N/cm	IEC 60454-2
Tensile strength	30 N/cm	IEC 60454-2
Dielectric strength	40 kV/mm	IEC 60454-2
Temperature index	0 °C - 90 °C	IEC 60454-2
Unwinding force	1.8 N/cm	IEC 60454-2

ELECTRICAL INSULATION AND MOUNTING TAPES



Colours



No. 328

PVC insulation tape

for insulation and bundling

Particularly flexible and UV-resistant PVC electrical insulation tape.

Characteristics
- High flexibility, even at minus temperatures
- Excellent resistance to oil, abrasion, corrosion and moisture
- Highly resistant to electrical break-down and mechanical protection
- Good sealing properties
- Stabilized against UV radiation
- Good workability even at low temperatures (-18°C to 105°C)
- Resistant to all weather conditions
- Self-extinguishing

Application/Suitability
- Fastening and protection during cable pull-in
- Bundling and reinforcing
- Sealing
- Marking of insulations with high mechanical load requirements
- As insulation in the electrical and telecommunication field

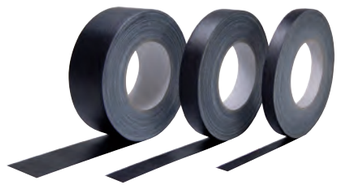
Test standards
- Approval according to VDE IEC 60454-3-1-11/F-PVCP/105

Material
- Soft-PVC

Scope of delivery
PVC insulation tape

Type	Colours	Length m	Width mm	Thickness mm	Art.-No.
No. 328	Black	20	12	0.18	416717
	Black	20	15	0.18	416721
	Black	10	19	0.18	416722
	Black	20	19	0.18	416770
	Blue	20	19	0.18	416771
	Light blue	20	19	0.18	416772
	Yellow	20	19	0.18	416773
	Red	20	19	0.18	416774
	White	20	19	0.18	416775
	Green	20	19	0.18	416776
	Violet	20	19	0.18	416777
	Grey	20	19	0.18	416778
	Brown	20	19	0.18	416779
	Green-Yellow	20	19	0.18	416780
	Mix (Black, Blue, Yellow, Red, White, Green, Violet, Grey, Brown, Green-Yellow)	20	19	0.18	416781
	Black	20	25	0.18	416782
	Black	20	30	0.18	416783
	Black	20	38	0.18	416784
	Grey	20	38	0.18	416785
	Black	20	50	0.18	416786
	Red	20	50	0.18	416787
	White	20	50	0.18	416788
	Grey	20	50	0.18	416789

Technical Data	Value	Test standard
Thickness	0.18 mm	IEC 60454-2
Tensile strength at break	35 N/cm	IEC 60454-2
Elongation at break	300 %	IEC 60454-2
Unwinding force	3.5 N/cm	IEC 60454-2
Adhesion to steel	2,0 N/cm	IEC 60454-2
Adhesion to surfaces	2,4 N/cm	IEC 60454-2
Flammability	Self-extinguishing	IEC 60454-2
Dielectric strength	45 kV/mm	IEC 60454-2
Elastic modulus to 35%	3.5 MPa	IEC 60454-2
Temperature index	-18°C to +105°C	IEC 60454-2



No. 90
Cotton cloth tape
for marking and labeling

High quality waterproof sealing cotton cloth tape with synthetic rubber adhesive.

Characteristics
- Synthetic rubber adhesive
- Hard-wearing
- Can be labelled at all times
- Easy to tear
- Easy to unroll
- Superior ageing resistance
- Can be adjusted to suit the form better
- Excellent adherence to a wide range of substances
- Easy processing

Application/Suitability
- Marking
- Labelling
- Affixing
- Bundling

Material
- Coated cotton

Colours

Black, Blue, White, Yellow, Brown, Grey, Green, Red

Scope of delivery
Cotton cloth tape

Type	Colours	Length m	Width mm	Thickness mm	Art.-No.
No. 90	Yellow	50	12	0.31	146016
	White	50	12	0.31	146020
	Grey	50	12	0.31	146024
	Yellow	25	15	0.31	145941
	White	25	15	0.31	145945
	Grey	25	15	0.31	145948
	Black	50	15	0.31	146028
	Yellow	50	15	0.31	146032
	White	50	15	0.31	146036
	Grey	50	15	0.31	146040
	Black	50	19	0.31	146044
	Blue	50	19	0.31	146046
	Yellow	50	19	0.31	146048
	Red	50	19	0.31	146050
	White	50	19	0.31	146052
	Green	50	19	0.31	146054
	Grey	50	19	0.31	146056
	Brown	50	19	0.31	146058
	Yellow	25	25	0.31	145967
	White	25	25	0.31	145970
	Grey	25	25	0.31	145973
	Black	50	25	0.31	146060
	Yellow	50	25	0.31	146064
	Red	50	25	0.31	146066
	White	50	25	0.31	146068
	Grey	50	25	0.31	146072
	Black	50	50	0.31	146107
	Yellow	50	50	0.31	146111
	White	50	50	0.31	146115
	Grey	50	50	0.31	146119

Technical data	Value
min. elongation at break	10 %
Adhesion to steel	1.7 N/cm
Unwinding force	2.5 N/cm

ELECTRICAL INSULATION AND MOUNTING TAPES



No. 64
Sealing tape
for permanently flexible sealing, self-amalgamating

Universally suitable, auto-amalgamating, to seal homogeneously or upholstering cables and conductors.

Characteristics
- Self-amalgamating
- Corrosion-resistant
- Ozone-resistant
- Permanently flexible
- Excellent adherence to metal, glass, rubber and plastic
- Superior physical properties

Application/Suitability
- Sealing of cable and conductor interstices
- Repairing of damaged cable sheaths
- Water-resistant sealing of cable entry points
- Padding of cable insulation
- Suitable for connections using acrylic and epoxy resin compounds
- Protection against dust, moisture and corrosion

Material
- Butyl-/Rubber based

Colours

Black

Scope of delivery
Sealing tape

Type	Colours	Length m	Width mm	Thickness mm	Art.-No.
No. 64	Black	1.5	38	3.2	125591

Technical data	Value
Dielectric strength	23 kV/mm
Specific volume resistivity	1 x 10^{12} MΩ
Tensile strength	0.1 MPa
Heat resistance	-30 C - 80 °C



No. 63
Copper braid tape
for shielding and potential control

Characteristics
- Wrinkle-free application to all contours
- High flexibility
- Unbreakable

Application/Suitability
- Earthing continuity and earth bonding
- Electrostatic shielding continuity
- Semi-conducting continuity for connectors
- Voltage grading continuity

Material
- Braided tinned copper wires

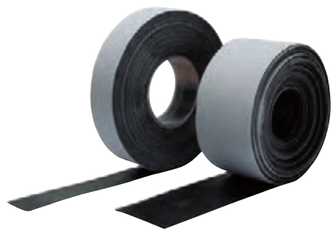
Colours

Silver

Scope of delivery
Copper braid tape

Type	Colours	Length m	Width mm	Thickness mm	Art.-No.
No. 63	Silver	5	25	0.5	126313
	Silver	9.1	25	0.5	126303
	Silver	5	60	0.5	204984
	Silver	10	60	0.5	207247

ELECTRICAL INSULATION AND MOUNTING TAPES



No. 60, No. 62
High voltage insulation tape
for insulation and padding, self-amalgamating

Characteristics
- Self-amalgamating
- Fuses to form a homogeneous, cavity-free compound within a short period of time
- Fully removable
- Durable
- Ozone-resistant
- Weatherproof
- Stabilized against UV rays
- No electrolytic corrosion
- Non tacky
- Extremely ductile
- Superior electrical properties
- Excellent adherence to a wide range of substances
- Superior physical properties
- Easy processing

Application/Suitability
- Conductor insulation for polymeric insulated cables up to 69 kV
- Padding of cable insulation
- Sealing of casting moulds
- Repairing and connection of various insulating and cable materials e.g. PE, XLPE, EPR, PVC, butyl, neoprene

Material
- EPR-Base

Colours

Black

Scope of delivery
High voltage insulation tape

Type	Colours	Length m	Width mm	Thickness mm	Art.-No.
No. 60	Black	10	19	0.5	125533
No. 62	Black	10	19	0.75	145908
	Black	5	38	0.75	125584
	Black	10	38	0.75	125589

Technical data	Value
min. elongation at break	900 %
Tensile strength at break	3 MPa
Dielectric constant	2.8
Dissipation factor (50 Hz)	0.0050
Dielectric strength	42 kV/mm
Specific volume resistivity	1 x 10^{13} MΩ
Water absorption	0.05 %
Temperature range **min.** **max.**	 -40 °C 100 °C



No. 61
Conductive tape
to control electric fields, self-amalgamating

Characteristics
- Printed "CAUTION-CONDUCTING TAPE" to eliminate danger of confusion
- Self-amalgamating
- Fuses to form a homogeneous, cavity-free compound within a short period of time
- Durable
- Ozone-resistant
- No electrolytic corrosion
- Highly flexible
- Superior physical properties

Application/Suitability
- Repairing of semi-conducting layer in medium voltage cables
- Electrical field smoothing
- For smoothing rough surfaces of connectors and cable lugs

Material
- EPR-Base

Colours

Black

Scope of delivery
Conductive tape

Type	Colours	Length m	Width mm	Thickness mm	Art.-No.
No. 61	Black	4.6	19	0.76	125604
	Black	9.1	19	0.76	125590

Technical data	Value
Elongation at break	900 %
Tensile strength at break	3 MPa
Specific volume resistivity	10 Ω x cm
Temperature range	-40 °C up to 100 °C

ELECTRICAL INSULATION AND MOUNTING TAPES



Premio 845
Tape for cable bundle
for short-circuit-resistant bundling and cable fixing

Fibreglass-reinforced polyester tape on one side coated with adhesive.

Characteristics
- Stable core
- Moisture-resistant
- Stabilized against UV rays
- Extreme tear resistance
- Excellent adhesion to a variety of materials
- Weatherproof

Application/Suitability
- Short-circuit-resistant bundling of cables
- Affixing of cables
- Especially suitable for fixation systems under mechanical tension

Material
- PES/Fibreglass reinforced

Colours

Black

Scope of delivery
Tape for cable bundle

Formular for number of tape layers and bundling distances

Maximum distance between 2 bundlings $L_{max} = 280 \times \frac{d^2}{I}$

Layers of tape n for chosen L_{max} : $n = \frac{I^2 \times L_{max}}{5700 \times d \times b} + 1$

I = Short cirquit in kA
d = Cable diameter in cm
b = Tape width in cm
L_{max} = Bundling distances in cm

Type	Colours	Length m	Width mm	Thickness mm	Art.-No.
Premio 845	Black	20	19	0.18	223592
	Black	50	19	0.18	223591
	Black	50	25	0.18	223590
	Black	50	50	0.18	337978

Technical data	Value
min. Elongation at break	4.5%
Adhesive strength	3.8 N/cm
max. Long-term heat resistance	-30°C to +100°C



Premio 1130

Fibreglass tape 130 °C

for heat-proof electrical and mechanical insulation

Self-adhesive fibreglass tape coated with heat-hardening silicone adhesive, temperature-resistant up to 130 °C.

Characteristics
- Stable core
- Inscribable
- Extreme tear resistance
- Superior thermal stability

Application/Suitability
- Insulation of highly exothermic electrical components
- As a cable protection during welding and soldering
- As a protection wrapping against radiant heat

Material
- Fibreglass reinforcement

Colours

Withe

Scope of delivery
Fibreglass tape

Type	Colours	Length m	Width mm	Thickness mm	Art.-No.
Premio 1130	White	33	12	0.17	223585
	White	33	19	0.17	223583

Technical data	Value
min. Elongation at break	8 %
Adhesive strength	3.8 N/cm
Insulation resistance	1.5 x 10^3 MΩ
Dielectric strength	12.7 kV/mm
max. Long-term heat resistance	130 °C

ELECTRICAL INSULATION AND MOUNTING TAPES



Premio 1180

Fibreglass tape 180 °C

for heat-proof electrical and mechanical insulation

Self-adhesive fibreglass tape coated with heat-hardening silicone adhesive, temperature-resistant up to 180 °C.

Characteristics
- Particularly high temperature resistance
- Excellent mechanical strength
- Very good form adaptability
- Good solvent and paint resistance
- Extreme tear resistance
- Inscribable
- Stable core

Application/Suitability
- Insulation of highly exothermic electrical components
- As a cable protection during welding and soldering
- As a protection wrapping against radiant heat

Material
- Fibreglass reinforcement

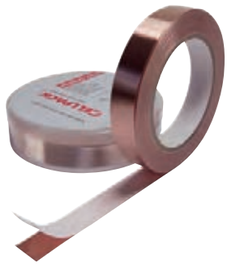
Colours

Withe

Scope of delivery
Fibreglass tape

Type	Colours	Length m	Width mm	Thickness mm	Art.-No.
Premio 1180	White	33	15	0.17	222581
	White	33	25	0,17	223580

Technical data	Value
Elongation at break	8 %
Adhesive strength	3.8 N/cm
Tensile strength at break	300 N/cm
Insulation resistance	1.5 x 10^3 MΩ
Breakdown voltage	3,0 kV
max. Long-term heat resistance	180 °C



Premio 2281
Copper foil
for discharge of electrostatic charge and screening of components

Copper foil with conductive acrylic adhesive.

Characteristics
- Conductive acrylate adhesive
- Very good corrosion resistance
- Can be soldered
- In practical plastic box

Application/Suitability
- Discharge of electrostatic charge and screening of compo-nents and appliances against electro-magnetic fields

Material
- Copper foil

Colours

Copper

Scope of delivery
Copper foil

Type	Colours	Length m	Width mm	Thickness mm	Art.-No.
Premio 2281	Copper	33	9	0.06	223578
	Copper	33	12	0.06	223577
	Copper	33	19	0.06	223576

Technical data	Value
Adhesive strength	4.5 N/cm
Tensile strength	40 N/cm
Heat resistance	-20 °C - 150 °C

ELECTRICAL INSULATION AND MOUNTING TAPES



Premio 5584
Self-adhesive foam tape
for universal fixation

Double-sided all-purpose foam adhesive tape with high-quality acrylic adhesive.

Characteristics
- Stable core
- Moisture-resistant
- Resistant to dilute acids and alkalis
- High UV-resistance
- Non-corrosive
- Double-sided acrylic adhesive
- High abrasion resistance

Application/Suitability
- Fastening of cable splicing lines
- For protection against electrolytic corrosion
- Waterproofing (minimum compre ssion 20%)
- General adhesive and fastening tape

Material
- Polyethylene foam

Colours

Withe

Scope of delivery
Self-adhesive foam tape

Type	Colours	Length m	Width mm	Thickness mm	Art.-No.
Premio 5584	White	60	19	1	223575
	White	60	25	1	223574

Technical data	Value
Adhesive strength	7.2 N/cm
Working temperature **min.** **max.**	 10 °C 40 °C
Heat resistance **min.** **max.**	 -40 °C 100 °C



HKB
Mastic tape
for sealing, self-amalgamating

Characteristics
- Excellent adherence to metal, glass, rubber and plastic
- Superior physical properties
- Superior electrical properties

Application/Suitability
- Reinforcement of heat shrinkable sealed areas
- Sealing of cable terminations for Ceander cables

Material
- Butyl-/Rubber based

Colours

Black

Scope of delivery
Mastic tape

Type	Colours	Length m	Width mm	Thickness mm	Art.-No.
HKB	Black	3	20	3	127651

Technical data	Value
Service temperature	-40 °C - 80 °C
Short-term (up to 1 hour)	200 °C

ADDITIONAL TAPES



No. 26
Warning tape
for warning of cable presence in case of excavation work

Characteristics
- Printing protected by transparent film
- Durable, elasticity retained at low temperatures
- Colour-fast, luminescent
- Increases the effectiveness of the warning prior to tearing due to 400 % stretchability

Application/Suitability
- Warning about the cables located in the ground (in case of excavation work)

Note
- Optimal position 40 cm above the feeder

Material
- Polyethylene laminated foil

Colours

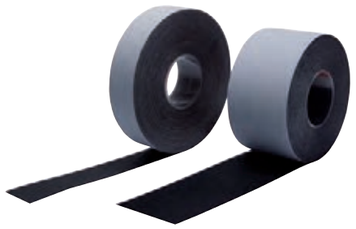
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Scope of delivery
Warning tape (Tapes and imprints are available in various colours, see order details.)

Note:Other types available on request.

Type	Colours	Imprint	Length m	Width mm	Thickness mm	Art.-No.
No. 26	Red/White	without imprint	500	80	0.08	125583
	Yellow	Achtung Starkstromkabel*	250	40	0.15	145865
	Yellow	Achtung Straßenbeleuchtung*	250	40	0.15	145867
	Yellow	Achtung Kabel*	250	40	0.15	145862
	Yellow	Achtung LWL-Kabel*	250	40	0.15	469008
	Yellow	Achtung Fernmeldekabel*	250	40	0.15	145864
	Yellow	Achtung Gasleitungen Attention conduites de gaz Attenzione condotte di gas Danger - Gas pipes Opgelet - Gasleiding Varning Gasledning	250	100	0.10	125628
	White	Achtung - Kabel - Gefahr Attention - câble - danger Attenzione - cavo - pericolo Attention - Cable - Danger Opgelet - Kabel - Gevaar Varning Elkabel	250	100	0.10	125626
	White	Achtung Wasserleitungen Attention Conduites d'eau Attenzione Condotte d'acqua Danger - Water Pipes Opgelet - Waterleiding Varning Vattenledning	250	100	0.10	125629
	White	Achtung TV Kabel Attention TV Cable Attenzione TV Cavo Attention TV Cable Opgelet TV Kabel Varning TV Elkabel	250	100	0.10	125627

*The imprint on the tape is written in german.



No. 72
Repair tape
for repairing damaged cable sheaths, self-amalgamating

Characteristics
- Self-amalgamating
- 100 % waterproof
- Superior physical and electrical properties
- Exceptional resistance to prolonged immersion in water and against ozone
- Residue-free dissolvability of most substrates and therefore suitable for temporary repairs

Application/Suitability
- Repair of damaged cable sheaths

Note
- The use of a repair joint, such as MZ cast resin straight-through joint, is mandatory in case of damage extending beyond the cable sheath to the core insulation, screen or armour.

Material
- PIB-Base

Colours

Black

Scope of delivery
Repair tape

Type	Colours	Length m	Width mm	Thickness mm	Art.-No.
No. 72	Black	10	25	0.75	125587
	Black	10	50	0.5	125624

Technical data	Value	Tests
min. Elongation at break	900 %	BS 903
Tensile strength	2 MPa	ASTM D150
Specific volume resistivity	1×10^{15} Ω/cm	ASTM D 257
Dielectric strength	42 kV/mm	ASTM D 149
Heat resistance	-40 °C - 90 °C	

ADDITIONAL TAPES



KRS
Repair kit
for repairing damaged cable sheaths, incl. accessories

Characteristics
- Kit content defined by the praxis

Note
- See the repair tape „No. 72“ for further information on product properties and technical data

Application/Suitability
- Repair of damaged cable sheaths

Note
- The use of a repair joint, such as MZ cast resin straight-through joint, is mandatory in case of damage extending beyond the cable sheath to the core insulation, screen or armour.

Scope of delivery
Repair tape No. 72, cleaning tissue, emery cloth, assembly instructions

	Type	Art.-No.
KRS	1	145911



HB
Hot melt adhesive
for sealing against humidity

Characteristics
- Fusible
- Supplied as tape
- Halogen-free

Application/Suitability
- Waterproof sealing for heat shrinkable products

Colours

Transparent

Scope of delivery
Hot melt adhesive

Type	Colours	Length m	Width mm	Thickness mm	Art.-No.
HB	Transparent	50	25	0.25	130837

NOTES

Safety & PPE

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30201 SG

The natural latex base has excellent dielectric properties.
The thicker the glove, the greater the electrical resistance.
The ergonomic design provides comfort and a smoother feel, and allows the glove to be put on and taken off very easily.

Insulated gloves are one of the most important pieces of PPE for working in the electrical sector. They are the first line of defence for contact with any live component or cable.

USE:
Electrical production, transport, transformation and distribution, railways, telecommunications, construction, maintenance in industry, solar panels, hybrid car batteries, etc.

RECOMMENDATIONS:
Latex insulated gloves are recommended, together with a suitable leather overglove, to provide mechanical protection against abrasions, cuts, tears and perforations.

The natural latex glove is available in beige.



CE IEC 60903
EN 60903

Available in sizes: 7, 8, 9, 10, 11 and 12

Code	Ref.	Class	Thickness (mm) max.	Size	Length (mm)	Categories	Working Voltage (V) max.	Proof test Voltage (V) max.	Withstand Voltage (V) max.
530110 **530120**	**SG-25 T9** **SG-25 T10**	00	0,7	7* 8* 9 10 11 12*	360	AZC	500 V AC	2.500 V AC	5.000 V AC
530150 **530160**	**SG-50 T9** **SG-50 T10**	0	1,0		280-360 410 - 460	AZC	1.000 V AC	5.000 V AC	10.000 V AC
530190 **530200**	**SG-10 T9** **SG-10 T10**	1	1,6		360	RC	7.500 V AC	10.000 V AC	20.000 V AC
530230 **530240**	**SG-20 T9** **SG-20 T10**	2	2,3			RC	17.000 V AC	20.000 V AC	30.000 V AC
530270 **530280** **530290**	**SG-30 T9** **SG-30 T10** **SG-30 T11**	3	2,9			RC	26.500 V AC	30.000 V AC	40.000 V AC
530320 **530330**	**SG-40 T10** **SG-40 T11**	4	3,8		410	RC	36.000 V AC	40.000 V AC	50.000 V AC

Meaning of letters in 'Categories': A: Acid / Z: Ozone / H: Oil / C: Very low temperature / R: A+Z+H resistance.
*For sizes 7, 8 and 12 consult.

MECHANICAL AND THERMAL REQUIREMENTS

- Average tensile strength: ≥16 MPa
- Average elongation at break: ≥600%
- Puncture resistance: ≥18N/mm
- Tension set: ≤15%
- Resistance to very low temperatures: Conditioning of the gloves for 24 hours at -40 ºC. ± 3ºC.
- Flame-retardant test: Application of a flame for 10 seconds at a finger tip.



RECOMMENDED SIZE	9	10	11
Contour cm (measured with closed hand)	21	24	26



30202 SGM

Composite insulated gloves provide electrical, mechanical and arc-flash protection, and as such do not need to be combined with any other kind of glove with mechanical protection.

The Composite glove range is made using a natural latex base covered by an outer layer of polychloroprene, combining mechanical resistance and comfort with a high level of protection.

Arc flash protection: the glove material has excellent properties in the event of a short circuit in the electric arc.



Outside in red
and beige inside.

CE IEC 60903
IEC 61482-1-2

Available in sizes: 7, 8, 9, 10, 11 and 12

Code	Ref.	Class	Thickness (mm) max.	Working Voltage (V) max.	Proof test Voltage (V) max.	Size	Length (mm)	Category
531110 **531120**	**SGM-25 T9** **SGM-25 T10**	00	< 2.4	500 V AC	2.500 V AC	7* 8* 9 10 11 12*	360	RC
531150 **531160**	**SGM-50 T9** **SGM-50 T10**	0	< 2.9	1.000 V AC	5.000 V AC		410	
531190 **531200**	**SGM-10 T9** **SGM-10 T10**	1	< 3.4	7.500 V AC	10.000 V AC			
531230 **531240**	**SGM-20 T9** **SGM-20 T10**	2	< 3.9	17.000 V AC	20.000 V AC			
531270 **531280**	**SGM-30 T9** **SGM-30 T10**	3	< 4.2	26.500 V AC	30.000 V AC			
531310 **531320**	**SGM-40 T10** **SGM-40 T11**	4	< 4.8	36.000 V AC	40.000 V AC			

Meaning of letters in 'Categories': A: Acid / Z: Ozone / H: Oil / C: Very low temperature / R: A+Z+H resistance.
*For sizes 7, 8 and 12 consult.

MECHANICAL AND THERMAL REQUIREMENTS

- Average tensile strength: ≥16 MPa
- Average elongation at break: ≥600%
- Tension set: ≤15%
- Complementary test and performance levels to be achieved are as follows:
- Resistance to cutting: › 20 mm and 5N, according to ISO13997
- (equivalent to level 2 according to EN 388)
- Resistance to abrasion: ≥0,05 mg/t
- Tearing resistance to: ›25 N
- (equivalent to level 2 according to EN 388)
- Resistamce to penetration: ›60 N (equivalent to level 2 according to EN 388)
- Resistance to very low temperatures: Conditioning of the gloves for 24 hours at -40 ºC. ± 3ºC.
- Flame-retardant test: Application of a flame for 10 seconds at a finger tip.



RECOMMENDED SIZE	9	10	11
Contour cm (measured with closed hand)	21	24	26



MANUFACTURING AND RETESTING OF INSULATING GLOVES

At Sofamel, we have a fully dedicated production line for the manufacturing of latex insulating gloves. Our processes are certified under the ISO9001:2015 quality standard and comply with the requirements established by the EN 60903:2003 and IEC 60903:2014 standards.

We also have a specially designed glove retesting booth for conducting electrical tests, allowing us to offer all our customers the best after-sales service for dielectric gloves.









YOUR SAFETY IS VITAL

THEREFORE, IT IS VERY IMPORTANT TO PERFORM REGULAR CHECKS OF INSULATING GLOVES

RECOMMENDATIONS FOR THE MAINTENANCE AND VERIFICATION OF INSULATING GLOVES

Insulating gloves for live working are personal protective equipment (PPE) that prevent electrical risks and are classified as category III (fatal risk) under Directive EU 2016/425.
The reference standards (EN 60903 and IEC 60903) define the RECOMMENDATIONS for usage and verification.

CLASS 0 and 00 GLOVES	**Air leakage test and visual inspection**	**RECOMMENDED BEFORE EACH USE**
	Dielectric properties test	**UPON CUSTOMER REQUEST**
CLASS 1 and 4 GLOVES	**Air leakage test and visual inspection**	**RECOMMENDED BEFORE EACH USE**
	Dielectric properties test	**MANDATORY** • Every 6 months from the start of service. • Maximum of 12 months from the date of manufacture if not used.

THE DEFINITION OF A GLOVE'S LIFESPAN IN NO WAY EXCLUDES THE RECOMMENDATIONS REGARDING PERIODIC CHECKS.

Storage conditions
According to the EN 60903 and IEC 60903 standards for class C, the gloves can be used at ambient temperatures between -40°C and +55°C.
The gloves are delivered in a UV-resistant plastic bag suitable for transportation and storage. Store the gloves in a dry, dark place at a temperature between 10°C and 21°C; do not compress, fold, or store them near sources of heat, light, or ozone.

GLOVES

Leather overgloves and fire-resistant gloves



30301 SG

Leather overgloves must be worn over dielectric gloves to protect against mechanical risks as well as against possible electric arc risks. These leather cowhide gloves with webbed thumbs have a 10 cm cuff with a retightening velcro strap on the back of the hand.

The cowhide leather is treated with silicone to increase its waterproof characteristics.

According to EN 388, EN 420 and EN 407 standard.

Code	Ref.	Cross-reference utilization With dielectric gloves: Dielectric gloves size and class — Size	00	0	1	2	3	4
540113	SG-B	7	●	●	●	●		
		8	●	●				
		9	●	●				
540114	SG-C	8			●	●		
		9			●	●		
		10	●	●				
540115	SG-D	10			●			
		11	●	●				
540116	SG-E	8					●	●
		9					●	●
		10				●		
		11			●			
		12	●	●				
540117	SG-F	10					●	●
		11				●		
		12			●			
540118	SG-G	11					●	●
		12				●	●	●

EN 388

Levels of mechanical resistance:
Abrasion: 2
Blade cut: 0
Tear: 2
Puncture: 2
Cut by sharp object: **B**

EN 420

Levels of safety, comfort and skill:

LEVEL 5

EN 407

Technical resistance levels:
Molten metal mass: X
Molten metal splash: 4
Radiant heat: 1
Convective heat: 2
Contact heat: 1
Flame: 2

CE EN 388 EN 420 EN 407



30302 SG-37

Gloves made of NOMEX fiber with fire-resistant properties.
They are used under dielectric gloves with the aim of protecting against a possible electric arc.

According to EN 407 standard.

Code	Ref.
535100	SG-37

CE EN 407



SG-38



SG-39

CE EN 388-2122
EN 420

30303 SG-38/39

Working gloves to protect hands from mechanical risks.
Suitable for any kind of job where hands must be protected.
Gloves made of grey or yellow cowhide leather.

According to EN 388-2122 and EN 420 standards.

Code	Ref.	Size
540100	**SG-38 T-10**	10
540101	**SG-38 T-9**	9
540102	**SG-38 T-8**	8
540103	**SG-38 T-11**	11
540110	**SG-39 T-10**	10
540111	**SG-39 T-9**	9



SH-265 T8
SH-265 T9



SH-370 T8
SH-370 T9

EN 388-1131X
EN 420

EN 388-4120B
EN 420

30303 SH

Gloves made of nylon. Palm covered with blue nitrile. According to EN 388-1131X and EN 420 standards.

Code	Ref.
540120	**SH-265 T8**
540130	**SH-265 T9**

Gloves made of nylon. Palm covered with grey nitrile. According to EN 388-4120B and EN 420 standards.

Code	Ref.
540140	**SH-370 T8**
540150	**SH-370 T9**



SH-350R T9
SH-350R T10



SH-GPKV T9
SH-GPKV T10

EN 388-4131X
EN 420

EN 388-3X43E
EN 420

Nylon/spandex gloves covered with blue micro-foam nitrile dots.
Very soft glove: excellent for handling small, delicate objects.
According to EN 388-4131X and EN 420 standards.

Code	Ref.
540160	**SH-350R T9**
540170	**SH-350R T10**

Gloves made of nylon and fiberglass with black nitrile. Foam sheathing. According to EN 388-3X43E and EN 420 standards.

Code	Ref.
540180	**SH-GPKV T9**
540190	**SH-GPKV T10**

CE CAT. II

Polyethylene glove case resistant
to impacts and UV rays





30304 CGS
Plastic glove case

Protect dielectric gloves from damage and contamination, ensuring they are in optimal condition for use when needed.

Code	Ref.	Dimensions
545115	**CGS**	43 x 23 x 7.6 cm

Bags, plastic and metal cases to transport,
store and keep dielectric gloves



30304 SG-36
Waterproof nylon bag

Waterproof nylon bag to carry dielectric gloves.
A strap on the back makes it easy to hang the bag on the belt

Code	Ref.	Dimensions
545100	**SG-36**	42.5 x 22 cm



30304 SG-35
Metallic glove case

Metallic case with a methacrylate window. Ideal for carrying, storing and preserving dielectric gloves.
It can be fixed on the wall thanks to a ring placed on the back.

Code	Ref.	Dimensions
545110	**SG-35**	45.3 x 19.1 x 7.2 cm



30304 SGP
Plastic glove case

Plastic case to store and carry dielectric gloves.

Code	Ref.	Dimensions
545111	**SGP**	47.5 x 17 x 5 cm





30304 SG-117
Pneumatic gauge tester

Sofamel's pneumatic dielectric glove tester is an essential tool for verifying the integrity and safety of gloves used in electrical work. This device is designed to perform air pressure tests to ensure the absence of punctures or defects in the gloves, thus guaranteeing the user's protection.

Code	Ref.
545120	SG-117



30304 ME-60S
Fuse extractor handle

The ME-60S fuse extractor handle is designed for the safe installation and removal of low-voltage fuses. This device features an insulated handle and a synthetic leather handguard, providing the operator with additional protection against potential accidents.

Code	Ref.
545131	ME-60S





30304 ME-60S-SM
Fuse extractor handle

The ME-60S-SM fuse extractor handle is designed for the safe installation and removal of low-voltage fuses. This device features an insulated handle. To ensure maximum safety, it is essential to use this model of fuse puller in combination with a Class 0 dielectric glove.

Code	Ref.
545132	ME-60S-SM



30304 TALCO
Talcum powder

50 gr talcum powder pot designed to adapt to the boxes and bags used for gloves storage.

Code	Ref.	Capacity
545140	**TALCUM**	50 g



30401 SO-71
Fall-arrest harness with belt

Full body fall-arrest harness compliant with standard EN 361. Includes two attachment points (to climb up and down) one on the back and the other one on the abdominal area. Includes adjustable shoulder and leg straps as well as work support belt compliant with standard EN 358 with two side attachment points at the end for coupling an anchorage element.
It is supplied with mod. SO-07 adjustable rope and mod. SO-74 karabiner.

Code	Ref.
550110	SO-71

CE EN 361
EN 358



30401 S/ATC
Safety harness with belt

Full body safety harness designed for use in all work environments involving heights equipped with foam back support and fast positioning buckles on the leg straps with four equipment loops.

Includes four attachment points:
- Chest attachment point
- Stomach attachment point, for suspension or positioning
- Back attachment point
- Two adjustable lateral positioning rings

Code	Ref.
550111	S/ATC

CE EN 361
EN 358



CE EN 358



CE

30401 SO-06
Support belt with rope

Support belt compliant with standard EN 358 with padded strap. Includes a ring at each end for coupling an anchorage element. Supplied with one SO-07 adjustable rope and one SO-74 karabiner.

Code	Ref.
550100	SO-06

30401 SO-45
Antilumbago and antivibratory belt

The antilumbago and antivibratory belt has been studied and designed to protect the back-lumbar area against all kind of efforts. It is made of red canvas material support with the inner side lined with 100% cotton. Quick adjustment with Velcro band and high security lock Waist perimeter 100 cm.

Code	Ref.	Size / Waist
550120	SO-45 T6	6 (90 cm)
550121	SO-45 T9	9 (105 cm)

30401 SO-07
Adjustable rope



CE UNE-EN 354

Anchorage element with adjustable length from 0.85 m to 1.35 m manufactured with 14 mm diameter polyamide rope. Supplied without karabiners.

Code	Ref.
550170	SO-07

30401 S/ELAR-354
Adjustable rope

Anchorage element with adjustable length from 0.85 m to 1.35 m manufactured with 11 mm diameter polyamide rope. Supplied with one integrated karabiner.



CE UNE-EN 354

Code	Ref.
550174	S/ELAR-354

30401 S/ABE-355
Energy absorber

Energy absorber with integrated Y-type anchorage element designed for permanent connection even when passing anchor points thanks to its two straps.
Total length 1.75 m.



CE UNE-EN 355

Code	Ref.
550175	S/ABE-355

PERSONAL PROTECTION EQUIPMENT

Safety harnesses and belts





CE EN 353-2

30401 SO-28
Sliding fall arrest device

Fall arrest device for flexible anchorage line with 14 mm rope. Includes safety lock and system which avoids the equipment from being misplaced. Allows the user to move vertically without having to change position. Blocks automatically in the event of falling.
In accordance with the EN 353-2 standard.

Code	Ref.
550140	SO-28



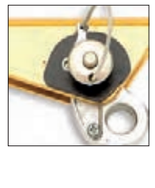
CE EN 353-2

30401 SO-75
Lifeline cord

Roll of 20 m rope with 14 mm diameter with thimbles at each end. To be used with sliding fall arrest device model SO-28.
In accordance with the EN 353-2 standard.

Code	Ref.
550150	SO-75





CE EN 353-2

30401 S/ADM-353
Sliding fall arrest device

Fall arrest device for flexible anchorage line with 11 mm rope that allows user to move vertically without having to change position. Blocks automatically in the event of falling.
In accordance with the EN 353-2 standard.

Code	Ref.
550176	S/ADM-353



CE EN 353-2

30401 S/CSE-353
Sliding fall arrest device

Roll of 20 m of semi-static "Rock-climbing" rope of 11 mm diameter. To be used as a source of progression with the sliding fall arrest device model S/ADM-353.
In accordance with the EN 353-2 standard.

Code	Ref.
550177	S/CSE-353



CE EN 362

30401 SO-74
Steel symmetrical karabiner

Steel symmetrical karabiner with safety lock.
In accordance with the EN 362 standard.

Code	Ref.
550160	SO-74



CE EN 362

30401 S/MOAL
Aluminium asymmetrical karabiner

Aluminium asymmetrical karabiner with safety lock.
In accordance with the EN 362 standard.

Code	Ref.
550161	S/MOAL



30402 BLVC-30E
Lifeline set - small

Lifeline set that consists of hook with rope operation, 20 m rope with 14 mm² section, snap hook, fallarrester and connectable pole of 2 sections and 3 m total length.

Code	Ref.
550300	BLVC-30E

30402 BLVC-40E
Lifeline set - medium

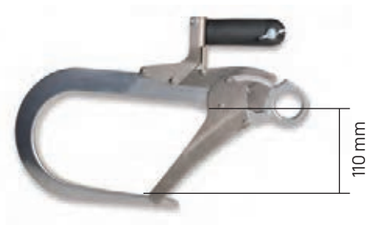
Lifeline set that consists of hook with rope operation, 20 m rope with 14 mm² section, snap hook, fallarrester and connectable pole of 2 sections and 4 m total length.

Code	Ref.
550310	BLVC-40E

30402 BLVC-60E
Lifeline set - large

Lifeline set that consists of hook with rope operation, 20 m rope with 14 mm² section, snap hook, fallarrester and connectable pole of 3 sections and 6 m total length.

Code	Ref.
550320	BLVC-60E



30402 GLV
Lifeline hook

Device composed of a snap hook to fix safely the rope to which the worker will be connected when climbing up to the workplace.

Code	Ref.	Overture
630136	GLV	110 mm



For poles with diameter between 85 and 265 mm



30403 AIRCLIMB
Climbing irons

The set of climbing irons for circular poles has been manufactured taking into account the health and safety demands specified in the provisions of the 89/686/CEE directive from 21st of December 1989.

It allows climbing up and down easily on circular fiberglass, steel and cement poles (in the case of cement poles, it is necessary to control the rubber level of wear and replace if necessary) with electrical infrastructure and telephone facilities. It also can be used in poles made of other materials as long as the user checks whether the adherence is correct and safe.

Specially designed to climb poles with obstacles like telecoms cables and others.

Code	Ref.
555125	AIRCLIMB



30403 SO-26
Climbing irons

Set of climbing irons specially designed for electrical and telecommunication wooden poles.

They are circular and have eight welded spikes with a special curved shape that enables climbing up and down.

They are fixed on with 1.15 m polyester straps of 30 mm wide and zinc steel buckles.

Code	Ref.	Ø
555100	SO-26	260 mm



30403 SO-27
Small climbing devices

With only one welded spike, they are made of carbon steel curved plate. They have four 65 cm long support polyester straps and leather cushioned pads with metallic buckles and eyelets.

For wooden poles.

Code	Ref.
555110	SO-27





ARMOUR bySOFAMEL

Class 1 – BOX TEST 4 kA/0,5 s.
EN 166; GS-ET-29

30404 ARMOUR-1
Safety helmet

Electrically Insulating Safety Helmet with Integrated Face Shield.
Basic Protection Against Arc Flash, class 1 according to BOX TEST, 4 kA/0,5 s.
EN166, GS-ET-29.

HELMET
- Improved visibility with reflective stickers.
- Manufacturing Date and Utilization Date permanently marked.
- Smooth Head Circumference Adjustment, range 53-63 cm.
- Electrical Class E (**20 kV AC**) according to ANSI Z89.1.
- Electrical Class 0 (1000 V AC/1500 V DC) according to EN 50365.
- Compliance with ANSI Z89.1; EN 397; EN 50365 standards.

FACE SHIELD
- Full face, chin and neck protection against thermal hazards caused by electric arc flash.
- Premium class anti-fog and anti-scratch protection.
- Easy to wear with eyeglasses.
- Protection against electric arc flash (**class 1 - BOX test 4 kA/0,5 s.**).
- Compliance with **EN 166; GS-ET-29 standards.**

CHIN STRAP
- 4-point strap recommended for working at height.
- Quick clasp - easy operation with protective gloves.

Code	Ref.
565090	ARMOUR-1

CE
EN 397:2012+A1:2012
EN 50365:2002
EN 166:2001
GS-ET-29:2010
ANSI/ISEA Z89.1.2014

PERSONAL PROTECTION EQUIPMENT

Safety helmets





ARMOUR bySOFAMEL

Class 2 – BOX TEST 7 kA/0,5 s.
EN 166; GS-ET-29

30404 ARMOUR-2
Safety helmet

Electrically Insulating Helmet with Integrated Face Shield.
Extended protection against arc flash, class 2 according to BOX TEST, 7 kA/0,5 s.
EN166, GS-ET-29.

HELMET
- Improved visibility with reflective stickers.
- Manufacturing Date and Utilization Date permanently marked.
- Smooth Head Circumference Adjustment, range 53-63 cm.
- Electrical Class E (20 kV AC) according to ANSI Z89.1.
- Electrical Class 0 (1000 V AC/1500 V DC) according to EN 50365.
- Compliance with ANSI Z89.1; EN 397; EN 50365 standards.

FACE SHIELD
- Full face, chin and neck protection against thermal hazards caused by electricarc flash.
- Premium class anti-fog and anti-scratch protection.
- Easy to wear with eyeglasses.
- Protection against electric arc (**class 2 - BOX test 7 kA/0,5 s.**).
- Compliance with standards: **EN 166; GS-ET-29.**

CHIN STRAP
- 4-point strap recommended for working at height.
- Quick clasp - easy operation with protective gloves.

Code	Ref.
565091	ARMOUR-2

CE
EN 397:2012+A1:2012
EN 50365:2002
EN 166:2001
GS-ET-29:2010
ANSI/ISEA Z89.1.2014
ASTM-F2178 (ARMOUR-2 ATPV36)





ARMOUR by SOFAMEL

Class 2 – according to standard GS-ET-29,
BOX TEST, 7 kA / 0.5 s.
Category 3 - according to ASTFM F2178,
ATPV 36 cal / cm²
EN 166; GS-ET-29; ASTM-F2178

30404 Armour-2 ATPV 36
Safety helmet

Electrically Insulating Helmet with Integrated Face Shield.
Highest protection against arc flash, class 2 – according to standard GS-ET-29, BOX TEST, 7 kA / 0.5 s. and category 3 – according to ASTFM F2178, ATPV 36 cal / cm2 EN166, GS-ET-29, ASTM F2178.

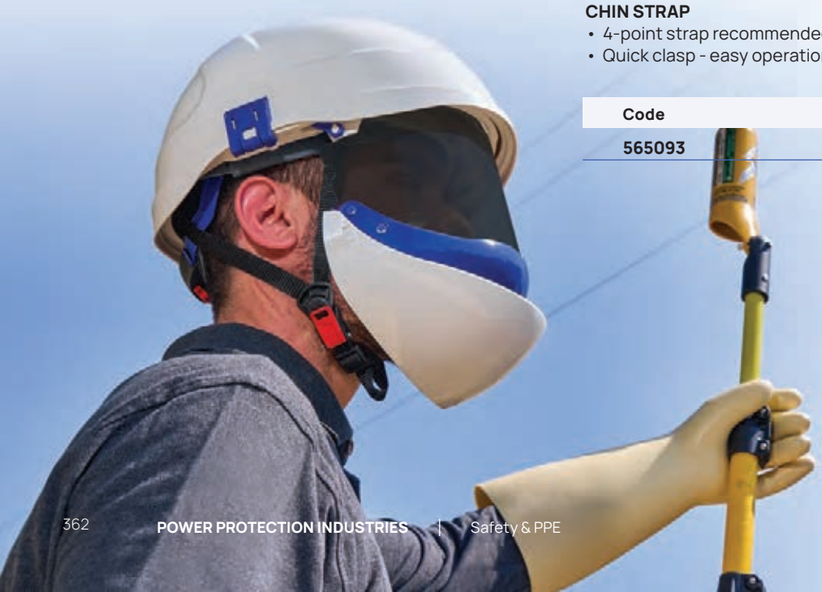
HELMET
- Improved visibility with reflective stickers.
- Manufacturing Date and Utilization Date permanently marked.
- Smooth Head Circumference Adjustment, range 53-63 cm.
- Electrical Class E (**20 kV AC**) according to ANSI Z89.1.
- Electrical Class 0 (1000 V AC/1500 V DC) according to EN 50365.
- Compliance with ANSI Z89.1; EN 397; EN 50365 standards.

FACE SHIELD
- Full face, chin and neck protection against thermal hazards caused by electric arc flash.
- Premium class anti-fog and anti-scratch protection.
- Easy to wear with eyeglasses.
- Protection against electric arc (**Class 2 – According to standard GS-ET-29, BOX TEST, 7kA / 0.5 s. Category 3 - According to ASTFM F2178, ATPV 36 cal / cm2**).
- Compliance with standards: **EN 166; GS-ET-29; ASTM-F2178.**

CHIN STRAP
- 4-point strap recommended for working at height.
- Quick clasp - easy operation with protective gloves.

Code	Ref.
565093	ARMOUR-2 ATPV36

CE EN 397:2012+A1:2012
EN 50365:2002
EN 166:2001
GS-ET-29:2010
ANSI/ISEA Z89.1.2014
ASTM-F2178 (ARMOUR-2 ATPV36)



PERSONAL PROTECTION EQUIPMENT

Safety helmets



CE EN 397
UNE-EN 50365:2003

Electrical insulation up to 1,000 V

30404 SP-181
Safety helmet

Safety helmet manufactured from polyethylene to protect the head from mechanical and electrical risks.

Includes plastic harness with six anchoring points and manual adjustment.

Electric insulation up to 1.000 V

Working temperature: -10°C / +50°C

Supplied in white colour without chin strap.

According to EN 397 standard and UNE-EN 50365:2003 and the health and safety requirements of Royal Decree 1407/1992.

Other colours under request.

Code	Ref.
565099	SP-181



CE EN 397
UNE-EN 50365:2003

Electrical insulation up to 1,000 V

30404 SPE
Safety helmet



Safety helmet manufactured from polyethylene to protect the head from mechanical and electrical risks.

Includes plastic harness adjustable using sprocket.

Electric insulation up to 1.000 V

Workig temperature: -10°C / +50°C

Supplied in white colour without chin strap.

According to EN 397 standard and UNE-EN 50365:2003 and the health and safety requirements of Royal Decree 1407/1992.

Other colours under request.

Code	Ref.
565102	SPE



CE EN 1249 2

30404 S/CABS-397
Safety helmet

Safety helmet for works involving heights manufactured from ABS with high-quality ultraviolet stabilization.
Includes harness comprised of one interior PPE piece and one head band adjustable using sprocket.
The stuffing in contact with the head includes pads to increase comfort.
Working temperature: -10°C / +50°C
Supplied in white colour with textile chin strap with 4 attachment points.
According to EN 1249 2 standard.
Other colours under request.

Code	Ref.
565106	S/CABS-397

Safety helmet and face shield



S/BQ



S/BQM

30404 S/BQ & S/BQM
Chin strap

Chin strap for helmets model SP-181 and SPE.

Code	Ref.
565130	S/BQ
565131	S/BQM



30405 SP-182
Face shield for short circuit arc

Face shield that can be adjusted to mostly all kind of safety helmets without needing to modify its characteristics, but mod. S / CABS-397. It is composed of a nylon adapter and a reclining visor. It repels molten metals, impacts at its highest level, liquid splashes, and the electric arc risk. It filters I.R. solar radiation. ATPV of serious viewer 6 cal/cm2. According to EN 166 standard.

Code	Ref.
570120	SP-182

CE EN 166



30405 SP-183
Protective glasses

Glasses comply with standards EN 166, EN 169, and EN 170.
Made with a front in propionate and temples in polycarbonate.
Lateral and upper protection.
Lenses made of green polycarbonate with anti-abrasion IR / UV5.

Code	Ref.
570100	SP-183

CE EN 166
EN 169
EN 170



30405 SP-183F
Glasses case

Code	Ref.
570110	SP-183F



30405 MP-4
Cushioned auditive protector

Cushioned auditive protector with adjustable headband height.
It isolates the worker from external noises.
According to EN 352-1 standard.

Code	Ref.
575100	MP-4

CE EN 352-1



30405 MP-1
Self-filtering mask

Self-filtering mask with nose brace for better adaptation.
According to EN 149 standard.

Code	Ref.
570130	MP-1

CE EN 149

Headlamp





HEAD CAN BE TURNED 45° UP OR DOWN
Adjust the head to easily control the angle of light irradiation

30406 LTE-CP400
Headlamp

Multifunctional headlamp; turned on and off with a simple gesture with the palm of the hand. Gesture recognition saves the operator from removing insulating gloves, making it easier to perform any task.

- Use: Indoor / Outdoor
- Range: 100 m
- Waterproof, shockproof, anti-fog
- Illumination time: 3-8 h
- Material: Aluminium / ABS

350 LM
IP64

USB charging



Code	Ref.
555010	LTE-CP400

LED RED LED LIGHT
POWER DISPLAY
GESTURE SENSING
IMPACT RESISTANT
MULTI-LEVEL ADJUSTMENT
WATERPROOF
LONG-LASTING BATTERY

Multifunction torch with magnet



30406 LTE-FM400
Multifunction torch with magnet

Multifunction LED torch with rechargeable battery and magnetic support for use in any work environment.

- Mobile and portable
- Rechargeable 3 W LED lamp
- Compact size adapts to different environments.

- **Adjustable support**
  180° adjustable support, easy to set up in different locations.

400 LM
IP66

USB charging

Code	Ref.
555000	LTE-FM400



Magnetic support



Support rotates 180°





30601 DB2
Dielectric boots

- Every boot tested to 20 kV (AC testing as standard, DC testing available on request).
- Leakage current less than 5 mA at 5 kV and less than 18 mA at 20 kV.
- Meets the requirements of ASTM 1117 (20 kV) and ASTM 2413.
- Blue vulcanized rubber sole for maximum grip - 30% better than a conventional safety boot sole.
- Slip resistance performance twice that required by SATRA TM144 standard.
- Two to three times the wear resistance of conventional soles.

Code	Ref.	Sizes
715155	DB2 T42	42
715160	DB2 T43	43
715165	DB2 T44	44
715170	DB2 T45	45



CLASE 2

17.5kV
Maximum working voltage

20kV
Test voltage



30601 DB3
Dielectric HV3 boots

- Lightweight design for increased wearer comfort.
- Low temperature flexibility down to -40°C.
- Durable, slip resistant vulcanised rubber sole for maximum grip.
- Energy absorbing tunnel system in heel and ergonomic cushioning insole (removable and machine washable) for greater wearer comfort.
- Cold insulation to EN ISO 20345.
- Meets the requirements of ASTM 1117 (20 kV) and ASTM 2413.
- Also available in a special sole version with resistance to fuel, oil, and hot contact. (on request)

Code	Ref.	Sizes
715270	DB3 T42	42
715275	DB3 T43	43
715280	DB3 T44	44
715285	DB3 T45	45



CLASE 3

26.5kV
Maximum working voltage

30kV
Test voltage

INSULATION

Dielectric boots



30602 OB1
Maxi dielectric overboots

- Class 1 electrically insulated dielectric overboots with vulcanised rubber soles for increased slip resistance.
- They are designed to be worn over safety boots and are ideal for workers who have to continually enter and exit hazardous areas.
- One-piece injection moulded construction with integral moulded handle ensures no leakage at seams or assembly/handle holes.
- Vulcanised rubber sole for superior slip resistance in wet and oily conditions (SRC); durable and cut resistant for significantly longer life, even in rough terrain; heat resistant EN 20347:2011 HRO, 60 seconds at 300°C and resistant to fuel and oil.
- Complies with ASTM 1117 requirements (20 kV).

Code	Ref.	Sizes
715290	OB1 T-L	L

CLASE 1

7.5kV Maximum working voltage **20**kV Test voltage







30602 OB2
Dielectric compact overboots

- Single piece injection moulded construction with integral moulded fastener ensures there
- are no seams or mounting/fastener holes to leak.
- No metal fasteners or components used in the construction.
- Slip resistant sole in blue dielectric compound.
- Fuel and oil resistant sole.
- Meets the requirements of ASTM 1117 (20 kV).

Code	Ref.	Sizes
715300	OB2 T-L	L

CLASE 2

17.5kV Maximum working voltage **20**kV Test voltage





30602 OB3
Dielectric HV3 maxi overboots

- Ingenious rear entry design ensures the boot is quick and easy to fit and remove.
- Ideal for personnel who have to continually enter and exit high voltage areas.
- Light weight.
- Fluorescent green colour.
- Seamless construction.
- Kick off lug.
- REACH Compliant.

Code	Ref.	Sizes
715340	OB3 T-L	L

CLASE 3

26.5kV Maximum working voltage **30**kV Test voltage



Monobloc and stackable insulating stool

FOR INDOOR USE





High stability
High impact resistance
High slip resistance



30501 STM
Insulating stool
for indoor use

Made of high impact polypropylene.
The platform surface is rough and non-slip.
Rubber tips are placed under the legs to give it greater adherence to the floor and protection from wear.
Platform: 640 x 640 mm
Surface: 528 x 528 mm

According to UNE 204001 standard.

Code	Ref.	Height (mm)	Class	Working voltage
580150	**STM-36**	204	4	36 kV
580155	**STM-45**	304	5	45 kV
580160	**STM-66**	304	6	66 kV

UNE 204001



Monobloc structure
The monobloc design ensures a stable and secure structure, reducing the risk of breakage or misalignment over time.

Stackable
Facilitate storage and transport when not in use.

Insulating stool

FOR OUTDOOR USE





High stability
High impact resistance
High slip resistance

30501 STE
Insulating stool
for outdoor use

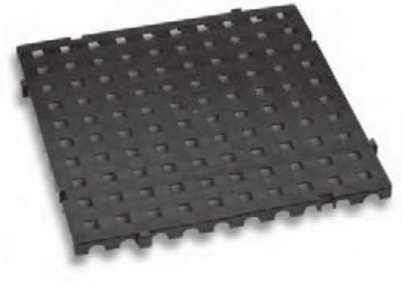
Made of high impact copolymer polypropylene.
The platform surface is rough, non-slip and the legs have deflecting hoods.
Rubber tips are placed under the legs to give it greater adherence to the floor and protection from wear.
Platform: 525 x 525 mm

According to UNE 204001 standard.
Legs made of IEC 60855 foam filled tube.



Code	Ref.	Height (mm)	Class	Working voltage
580096	**STE-26**	257	3	26 kV
580111	**STE-45**	399	5	45 kV
580116	**STE-66**	449	6	66 kV

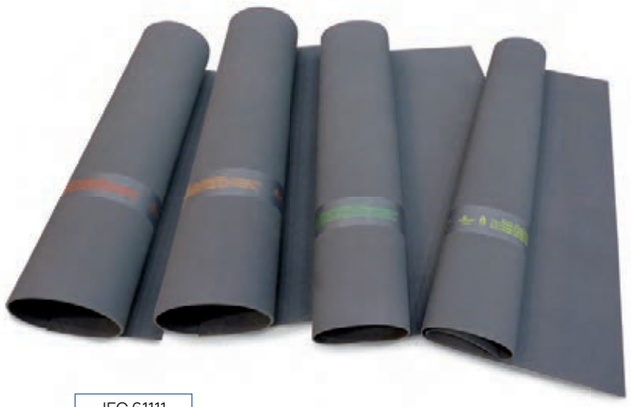
UNE 204001



30501 ST-79
Insulating slab

Made of high impact polyethylene and 500 x 500 mm modules that can be joined together, makes any surface easier to be covered. This material can be easily cut as to be adapted to any space.

Code	Ref.
580130	**ST-79**



IEC 61111

30502 AD
Insulating mat

Specific Rubber Base: natural rubber SBR
Specific weight: 1.51 g/cm3 (specific gravity)
Hardness: 71 Shore A
Tensile Strength: 75.5 kg/cm2
Elongation at break: 362%
Resistance to tearing: 20 kg/cm2
Resistance to abrasión: 182 mm3
Temperature Field: -40°C / +70°C

Chemical resistance:
Acids and Bases diluted - Moderate
Acids and Bases Concentrates - Not recommended
Hydrocarbon - Not recommended
Organic solvents - Not recommended

According to IEC 61111.

We can customize the length of the mats as per our clients' requests (max 10 m).

Code	Ref.	Dimensions (m)	Class	Thickness (mm)	Weight (kg)	Work voltage (V)	Test voltage (V)	Supported voltage (V)
585180	AD0-0606	0.6 x 0.6	0	2.20 ±0.30	1.18	1.000	5.000	10.000
585181	AD0-0610	0.6 x 1.0			1.98			
585182	AD0-06100	0.6 x 10			19.80			
585183	AD0-1010	1.0 x 1.0			3.30			
585184	AD0-10100	1.0 x 10			33.00			
585185	AD0-1210	1.2 x 1.0			3.96			
585186	AD0-12100	1.2 x 10			39.60			
585200	AD2-0606	0.6 x 0.6	2	2.60 ±0.30	1.404	17.000	20.000	30.000
585210	AD2-0610	0.6 x 1.0			2.34			
585220	AD2-06100	0.6 x 10			23.4			
585230	AD2-1010	1.0 x 1.0			3.90			
585240	AD2-10100	1.0 x 10			39.00			
585250	AD2-1210	1.2 x 1.0			4.68			
585260	AD2-12100	1.2 x 10			46.80			
585300	AD3-0606	0.6 x 0.6	3	3.20 ±0.30	1.72	26.500	30.000	40.000
585310	AD3-0610	0.6 x 1.0			2.88			
585320	AD3-06100	0.6 x 10			28.8			
585330	AD3-1010	1.0 x 1.0			4.80			
585340	AD3-10100	1.0 x 10			48			
585350	AD3-1210	1.2 x 1.0			5.76			
585360	AD3-12100	1.2 x 10			57.60			
585400	AD4-0606	0.6 x 0.6	4	5.20 ±0.30	2.80	36.000	40.000	50.000
585410	AD4-0610	0.6 x 1.0			4.68			
585420	AD4-06100	0.6 x 10			46.80			
585430	AD4-1010	1.0 x 1.0			7.80			
585440	AD4-10100	1.0 x 10			78.00			
585450	AD4-1210	1.2 x 1.0			9.36			
585460	AD4-12100	1.2 x 10			93.6			



IEC 61111

30503 MA
Insulating blanket

Insulating blanket made of high quality resistant rubber. Used to protect workers from low voltage electrical hazards.
The blanket is a bright colour so it can be easily identified and seen by the operator in the work area.
These blankets are category AZ, which means they are certified to be resistant to acids (Category A), ozone present in electrical equipment (Category Z).

Base: Vulcanized elastomer
Minimum tensile strength: 12 MPa
Elongation at break: 300%
Hardness: 60 Sh A
Mechanical resistance to perforation
Flame retardant
Aging tests
Low temperature bending test

The length of the blankets can be customised according to the customers' requests (maximum 20 m).

Conforms to IEC 61112:2009: Live working - Electrical insulating mats.

Code	Ref.	Width (m)	Length (m)	Class	Thickness (mm)	Weight (kg/m²)	Working tension
585001	MA0-1010	1	1	0	1.5 (+/-0.2)	1.6	1 kV CA / 1.5 kV CC
585010	MA0-10100	1	10				



30504 SP-22
Cowl

It is made of rubber and it is used for the provisional insulation of bare conductors as they pass through low voltage insulators. It is bell-shaped and incorporates grooves for the conductors to pass through. According to IEC 60243-1 standard.

Code	Ref.	Ø
595100	**SP-22**	90 mm

CE IEC 60243-1



30505 SP-39
Fixing peg

120 mm long wooden peg used to fix the vinyl cloth sheets on the conductors.

Code	Ref.
595112	**SP-39**



30505 S/PA
Insulated fixing peg 1000 V

Manufactured in insulated material. It is used to fix the protective covers during the insulation of a workplace in switches, cables and overhead lines up to 1 kV.

Code	Ref.
595113	**S/PA**



30505 PACE-1,5
1000 V insulated clamp

Made with insulating material. Suitable for clamping blankets up to 1 kV AC / 1.5 kV DC.

Code	Ref.	Length
595114	**PACE-1,5**	50 mm



30505 SP-321
Profil

It is made of rubber and it is used as provisional insulation for bare conductors in low voltage or with insufficient protection in small spaces.

Code	Ref.	Ø	Length
595101	**SP-321**	19 mm	1 m
595103	**SP-321**	19 mm	1.5 m

INSULATION

Low voltage insulation



30505 SP-35
Vinyl cloth

Manufactured from 0.3 mm thick vinyl. It is used to insulate various elements in low-voltage installations.
Rolls of 50 m x 1.40 m.
According to UNE 61112:2010 and IEC 61112:2009 standards.

Code	Ref.	Rolls
595102	**SP-35**	50 m x 1.40 m

UNE 61112:2010
IEC 61112:2009



30705 SP-52
Cowl bag

Nylon bag with reinforcements to facilitate the carriage of the insulating cowl.

Code	Ref.
600100	**SP-52**

* Depending on availability, the colour of the bags may vary.



30705 SP-50
Profil bag

Nylon bag with reinforcements to facilitate the carriage of the insulating profil.

Code	Ref.	Ø	Length
600110	**SP-50**	20 cm	115 cm

* Depending on availability, the colour of the bags may vary.



30701 SO-31
Flat tool-holder bag

250 x 290 mm flat tool bag made of canvas with sinthetic reinforcement at the bottom. Incorporates nylon straps with buckles to attach it to a belt.

Code	Ref.
600120	**SO-31**

* Depending on availability, the colour of the bags may vary.



30701 SO-32
Circular tool-holder bag

230 x 320 mm circular tool bag made of canvas with sinthetic reinforcement at the bottom. Incorporates a nylon handle for carrying and lifting.

Code	Ref.
600130	**SO-32**

* Depending on availability, the colour of the bags may vary.

INSULATION

Bags and covers



30702 BA
Insulating mat bag

Nylon bag with reinforcements to facilitate the transport of the insulating mat.

Code	Ref.	Ø	Length
600150	**BA-1,0x10**	**15 cm**	110 cm
600151	**BA-0,6x10**	**15 cm**	70 cm

* Depending on availability, the colour of the bag may vary.



30703 FP
Bag for pole

Nylon bag for the transport and storage of poles.

Code	Ref.	Dimensions (mm) width x length
899000	**FP-20/140**	200 x 1400
899005	**FP-20/210**	200 x 2100
899010	**FP-25/125**	250 x 1250
899015	**FP-25/175**	250 x 1750
899020	**FP-25/225**	250 x 2250
899025	**FP-25/275**	250 x 2750
899030	**FP-25/325**	250 x 3250

* Depending on availability, the colour of the bag for pole may vary.



30703 FE
Cover for earthing equipment poles

Nylon cover used to store and transport poles.

Code	Ref.	Dimensions (mm) width x length
899050	**FE-20/120**	200 x 1200

* Depending on availability, the colour of the cover for earthing poles may vary.



FE-40/30



FE-20/110

30704 FE
Bag for earthing equipments

Nylon bags used to store and transport earthing equipments.

Code	Ref.	Dimensions (mm) width x length
899055	**FE-20/110**	200 x 1100
899060	**FE-40/30**	400 x 300

* Depending on availability, the colour of the bag and the cover for earthing poles may vary.

INSULATING POLES

Maneuvering poles



U
Universal Head



INDOOR and OUTDOOR
Use in dry environment

Maneuvering pole with only one section made of polyester and fi-breglass tube Ø 32 mm with humidity-proof seals on each end, hand protector, grip, tip, Universal head and maneuvering hook.

30801 BM-45

- Length of the insulating element: 1.60 meters
- Total length without hook: 1.50 meters
- Working voltage: 45 kV
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.
605100	**BM-45**

30801 BM-66

- Length of the insulating element: 2.10 meters
- Total length without hook: 2.00 meters
- Working voltage: 66 kV
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.
605110	**BM-66**

30801 BM-90

- Length of the insulating element: 2.60 meters
- Total length without hook: 2.50 meters
- Working voltage: 90 kV
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.
605115	**BM-90**

30801 BM-132

- Length of the insulating element: 3.10 meters
- Total length without hook: 3.00 meters
- Working voltage: 132 kV
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.
605120	**BM-132**

Maneuvering poles



U
Universal Head



INDOOR and OUTDOOR
Use in dry and humid environment

Maneuvering pole with only one section made of polyester and fibreglass tube Ø 32 mm with humidity-proof seals on each end, 3 deflecting hoods, hand protector, grip, tip, Universal head and maneuvering hook.

30801 BME-45

- Total length: 1.60 meters
- Working voltage: 45 kV
- Number of bells: 3
- For INDOOR and OUTDOOR use in dry and humid environment

Code	Ref.
605130	BME-45

30801 BME-66

- Total length: 2.10 meters
- Working voltage: 66 kV
- Number of bells: 3
- For INDOOR and OUTDOOR use in dry and humid environment

Code	Ref.
605140	BME-66

30801 BME-132

- Total length: 3.10 meters
- Working voltage: 132 kV
- Number of bells: 3
- For INDOOR and OUTDOOR use in dry and humid environment

Code	Ref.
605150	BME-132

INSULATING POLES

Rescue pole



Rescue pole with only one section made of polyester and fibre-glass tube Ø 32 mm with humidity-proof seals on each end, hand protector, grip, tip, M-10 metric head and rescue hook.

30802 BS-3

- Length of insulating element: 0.50 meters
- Total length (without hook): 1.00 meter
- Working voltage: 3 kV

Code	Ref.
610090	BS-3

30802 BS-25

- Length of insulating element: 0.82 meters
- Total length (without hook): 1.32 meters
- Working voltage: 25 kV

Code	Ref.
610095	BS-25

30802 BS-45

- Length of insulating element: 1.00 meter
- Total length (without hook): 1.50 meters
- Working voltage: 45 kV

Code	Ref.
610100	BS-45

30802 BS-66

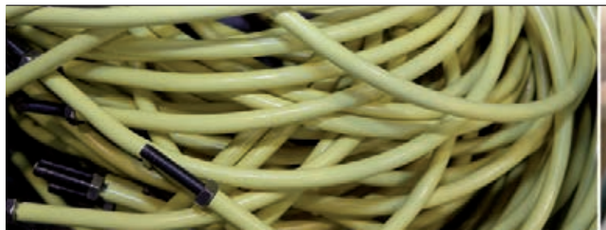
- Length of insulating element: 1.20 meters
- Total length (without hook): 2.00 meters
- Working voltage: 66 kV

Code	Ref.
610110	BS-66

30802 BS-90

- Length of insulating element: 1.70 meters
- Total length (without hook): 2.50 meters
- Working voltage: 90 kV

Code	Ref.
610115	BS-90







M
Metric-10 Head



U
Universal Head



B
Bayonet Head



P
Multipurpose Head
(Hexagonal + Metric head-10)

Stable adjusters





Easy
adjustment

INDOOR and OUTDOOR
Use in dry environment

Telescopic pole with two sections made of reinforced fibre-glass tube Ø 37 and 30 mm with humidity-proof seals on each end, hand protector, grip, tip and M (Metric-10), U (Universal), B (Bayonet) or P (Hexagonal + Metric-10) head. The length of each section can be adjusted as needed by means of an adjustment system with locking handles.

30803 BMTS-15/45

Length folded: 0.85 meters
Length extended: 1.486 meters
Working voltage: 45 kV (fully extended)
For INDOOR and OUTDOOR use in dry environment
Weight: 0.75 Kg

Code	Ref.
615300	BMTS-15/45M
615301	BMTS-15/45U
615302	BMTS-15/45B
615303	BMTS-15/45P

30803 BMTS-20/66

Length folded: 1.10 meters
Length extended: 1.986 meters
Working voltage: 66 kV (fully extended)
For INDOOR and OUTDOOR use in dry environment
Weight: 0.95 Kg

Code	Ref.
615310	BMTS-20/66M
615311	BMTS-20/66U
615312	BMTS-20/66B
615313	BMTS-20/66P

30803 BMTS-30/132

Length folded: 1.65 meters
Length extended: 3 meters
Working voltage: 132 kV (fully extended)
For INDOOR and OUTDOOR use in dry environment
Weight: 1.35 Kg

Code	Ref.
615320	BMTS-30/132M
615321	BMTS-30/132U
615322	BMTS-30/132B
615323	BMTS-30/132P

INSULATING POLES

Telescopic poles



Easy adjustment

Stable adjusters.
Adjust the extended length of each section as per your needs.
Last section foam filled for poles over 6 m according to IEC 60855.
Reinforced fibreglass tube.
Up to 12 m.



INDOOR and OUTDOOR
Use in dry environment

Telescopic multiple section pole made of reinforced fibreglass tube with variable circular shape that allows to wedge automatically each section. The upper section is filled in with foam according to IEC 60855.
The length of each section can be adjusted as needed by means of an adjustment system with locking handles.
All models are supplied with Universal head and maneuvering hook.
The A section must be always unfolded to be used.

30803 BMTS-4/6

- Length folded: 1.75 meters
- Length extended: 5.97 meters (4 sections)
- Working voltage: 380 kV (fully extended)
- For INDOOR and OUTDOOR use in dry environment
- Weight: 3.40 kg

Code	Sections	Voltage	Ref.
615325	C+A	132 kV	BMTS-4/6
	C+B+A	380 kV	

30803 BMTS-5/9

- Length folded: 2.00 meters
- Length extended: 8.75 meters (5 sections)
- Working voltage: 420 kV (fully extended)
- For INDOOR and OUTDOOR use in dry environment
- Weight: 5.20 kg

Code	Sections	Voltage	Ref.
615330	D+A	132 kV	BMTS-5/9
	D+B+A	380 kV	
	D+C+B+A	420 kV	

30803 BMTS-6/12

- Length folded: 2.30 meters
- Length extended: 11.80 meters (6 sections)
- Working voltage: 420 kV (fully extended)
- For INDOOR and OUTDOOR use in dry environment
- Weight: 7.25 kg

Code	Sections	Voltage	Ref.
615335	E+A	132 kV	BMTS-6/12
	E+B+A	380 kV	
	E+C+B+A	420 kV	
	E+D+C+B+A	420 kV	



Easy adjustment

Stable adjusters.
Adjust the extended length of each section as per your needs.
Last section foam filled for poles over 6 m according to IEC 60855.
Reinforced fibreglass tube.
Up to 12 m.



INDOOR and OUTDOOR
Use in dry environment

Telescopic multiple section pole made of reinforced fibreglass tube with variable circular shape that allows to wedge automatically each section. The upper section is filled in with foam according to IEC 60855.

The length of each section can be adjusted as needed by means of an adjustment system with locking handles.
All models are supplied with Universal head and maneuvering hook.
The A section must be always unfolded to be used.

30803 BMTS-7/10,3

- Length folded: 1.80 meters
- Length extended: 10.30 meters (7 sections)
- Working voltage: 420 kV (fully extended)
- For INDOOR and OUTDOOR use in dry environment
- Weight: 6.50 kg

Code	Sections	Voltage	Ref.
615355	F+A	132 kV	BMTS-7/10,3
	F+B+A	220 kV	
	F+C+B+A	380 kV	
	F+D+C+B+A	380 kV	
	F+E+D+C+B+A	420 kV	

30803 BMTS-7/11,6

- Length folded: 2.00 meters
- Length extended: 11.67 meters (7 sections)
- Working voltage: 420 kV (fully extended)
- For INDOOR and OUTDOOR use in dry environment
- Weight: 7.30 kg

Code	Sections	Voltage	Ref.
615350	F+A	132 kV	BMTS-7/11,6
	F+B+A	380 kV	
	F+C+B+A	380 kV	
	F+D+C+B+A	380 kV	
	F+E+D+C+B+A	420 kV	



M
Metric-10 Head



U
Universal Head



B
Bayonet Head



P
Multipurpose Head
(Hexagonal + Metric head-10)



INDOOR and OUTDOOR
Use in dry environment

Connectable poles with two sections, made of polyester and fibreglass tube Ø 32 mm with humidity-proof seals on each end, hand protector, grip, tip and M (Metric-10), U (Universal), B (Bayonet) or P (Hexagonal + Metric-10) head.

30804 BMAI-2

- Total length: 2 meters
- Composed of 2 sections of 1 m each
- Working voltage: 66 kV
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.
616100	BMAI-2/66M
616101	BMAI-2/66U
616102	BMAI-2/66B
616103	BMAI-2/66P

30804 BMAI-2,5

- Total length: 2.5 meters
- Composed of 1 section of 1 m + 1 section of 1.5 m
- Working voltage: 110 kV
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.
616110	BMAI-2,5/110M
616111	BMAI-2,5/110U
616112	BMAI-2,5/110B
616113	BMAI-2,5/110P

30804 BMAI-3

- Total length: 3 meters
- Composed of 2 sections of 1.5 m each
- Working voltage: 132 kV
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.
616120	BMAI-3/132M
616121	BMAI-3/132U
616122	BMAI-3/132B
616123	BMAI-3/132P

Connectable poles



M
Metric-10 Head



U
Universal Head



B
Bayonet Head



P
Multipurpose Head
(Hexagonal + Metric head-10)



INDOOR and OUTDOOR
Use in dry and humid environment

Connectable pole with two sections made of polyester and fibreglass tube Ø 32 mm with humidity-proof seals on each end, hand protector, grip, tip, 3 deflecting hoods and M (Metric-10), U (Universal), B (Bayonet) or P (Hexagonal + Metric-10) head.

30805 BMAE-2

- Total length: 2 meters
- Composed of 2 sections of 1 m each
- Working voltage: 30 kV
- For INDOOR and OUTDOOR use in dry and humid environment

Code	Ref.
616200	BMAE-2/30M
616201	BMAE-2/30U
616202	BMAE-2/30B
616203	BMAE-2/30P

30805 BMAE-2,5

- Total length: 2.5 meters
- Composed of 1 section of 1 m + 1 section of 1.5 m
- Working voltage: 66 kV
- For INDOOR and OUTDOOR use in dry and humid environment

Code	Ref.
616210	BMAE-2,5/66M
616211	BMAE-2,5/66U
616212	BMAE-2,5/66B
616213	BMAE-2,5/66P

30805 BMAE-3

- Total length: 3 meters
- Composed of 2 sections of 1.5 m each
- Working voltage: 110 kV
- For INDOOR and OUTDOOR use in dry and humid environment

Code	Ref.
616220	BMAE-3/110M
616221	BMAE-3/110U
616222	BMAE-3/110B
616223	BMAE-3/110P

INSULATING POLES

Connectable poles



M
Metric-10 Head



U
Universal Head



B
Bayonet Head



P
Multipurpose Head
(Hexagonal + Metric head-10)



INDOOR and OUTDOOR
Use in dry environment

Connectable pole with two or three sections made of polyester and fibreglass tube Ø 38.4 mm with hand protector, grip, tip and M (Metric-10), U (Universal), B (Bayonet) or P (Hexagonal + Metric-10) head.

30804 BMAI-3V

Total length: 3 meters
Composed of 2 sections of 1.5 m each
Working voltage: 132 kV
For INDOOR and OUTDOOR use in dry environment

Code	Ref.
616500	BMAI-3V/132M
616501	BMAI-3V/132U
616502	BMAI-3V/132B
616503	BMAI-3V/132P

30804 BMAI-4V

Total length: 4 meters
Composed of 2 sections of 2 m each
Working voltage: 220 kV
For INDOOR and OUTDOOR use in dry environment

Code	Ref.
616510	BMAI-4V/220M
616511	BMAI-4V/220U
616512	BMAI-4V/220B
616513	BMAI-4V/220P

30804 BMAI-5V

Total length: 5 meters
Composed of 2 sections of 2 m + 1 section of 1 m
Working voltage: 380 kV
For INDOOR and OUTDOOR use in dry environment

Code	Ref.
616520	BMAI-5V/380M
616521	BMAI-5V/380U
616522	BMAI-5V/380B
616523	BMAI-5V/380P

30804 BMAI-6V

Total length: 6 meters
Composed of 3 sections of 2 m each
Working voltage: 380 kV
For INDOOR and OUTDOOR use in dry environment

Code	Ref.
616530	BMAI-6V/380M
616531	BMAI-6V/380U
616532	BMAI-6V/380B
616533	BMAI-6V/380P

Connectable poles



M
Metric-10 Head



U
Universal Head



B
Bayonet Head



P
Multipurpose Head
(Hexagonal + Metric head-10)



INDOOR and OUTDOOR
Use in dry and humid environment

Connectable pole with two or three sections made with polyester and fibreglass tube Ø 38.4 mm with hand protector, grip, tip, 3 deflecting hoods and M (Metric-10), U (Universal), B (Bayonet) or P (Hexagonal + Metric-10) head.

30805 BMAE-3V

- Total linked length: 3 meters
- Composed of 2 sections of 1.5 m each
- Working voltage: 110 kV
- For INDOOR and OUTDOOR use in dry and humid environment

Code	Ref.
616600	BMAE-3V/110M
616601	BMAE-3V/110U
616602	BMAE-3V/110B
616603	BMAE-3V/110P

30805 BMAE-4V

- Total linked length: 4 meters
- Composed of 2 sections of 2 m each
- Working voltage: 220 kV
- For INDOOR and OUTDOOR use in dry and humid environment

Code	Ref.
616610	BMAE-4V/220M
616611	BMAE-4V/220U
616612	BMAE-4V/220B
616613	BMAE-4V/220P

30805 BMAE-5V

- Total linked length: 5 meters
- Composed of 2 sections of 2 m + 1 section of 1 m
- Working voltage: 380 kV
- For INDOOR and OUTDOOR use in dry and humid environment

Code	Ref.
616620	BMAE-5V/380M
616621	BMAE-5V/380U
616622	BMAE-5V/380B
616623	BMAE-5V/380P

30805 BMAE-6V

- Total linked length: 6 meters
- Composed of 3 sections of 2 m each
- Working voltage: 380 kV
- For INDOOR and OUTDOOR use in dry and humid environment

Code	Ref.
616630	BMAE-6V/380M
616631	BMAE-6V/380U
616632	BMAE-6V/380B
616633	BMAE-6V/380P

Pole UNE 50508 - 1 section



M
Metric-10 Head



B
Bayonet Head



H
Hexagonal Head

IEC 60855
UNE-EN-50508



INDOOR and OUTDOOR
Use in humid environment

Multiuse poles according to EN-50508 standard of 1 single-section. Manufactured with a Ø 32 mm polyester and fiberglass tube and filled with polyurethane foam that complies with the IEC 60855 standard.
Head: U (Universal), B (Bayonet), H (Hexagonal)
Includes carrying bag.

30806 BSC-M3

- Total length: 1.5 meters
- Working voltage: 30 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616700	BSC-M3U
616701	BSC-M3B
616702	BSC-M3H

30806 BSC-M4

- Total length: 2 meters
- Working voltage: 45 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616703	BSC-M4U
616704	BSC-M4B
616705	BSC-M4H

30806 BSC-M5

- Total length: 2.5 meters
- Working voltage: 66 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616706	BSC-M5U
616707	BSC-M5B
616708	BSC-M5H

30806 BSC-M6

- Total length: 3 meters
- Working voltage: 132 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616709	BSC-M6U
616710	BSC-M6B
616711	BSC-M6H

Connectable pole UNE 50508



U
Universal Head



B
Bayonet Head



H
Hexagonal Head

IEC 60855
UNE-EN-50508



INDOOR and OUTDOOR
Use in humid environment

Multiuse poles according to EN-50508 standard of two or three-section. Manufactured with a Ø 32 mm polyester and fiberglass tube and filled with polyurethane foam that complies with the IEC 60855 standard.
Head: U (Universal), B (Bayonet), H (Hexagonal).
Includes carrying bag.

30807 BSC-M22

- Total linked length: 2 meters
- Composed of 2 sections of 1 m each
- Working voltage: 45 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616712	BSC-M22U
616713	BSC-M22B
616714	BSC-M22H

30807 BSC-M32

- Total linked length: 2.5 meters
- Composed of 1 section of 1 m + 1 section of 1.5 m
- Working voltage: 66 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616715	BSC-M32U
616716	BSC-M32B
616717	BSC-M32H

30807 BSC-M33

- Total linked length: 3 meters
- Composed of 2 sections of 1.5 m each
- Working voltage: 132 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616718	BSC-M33U
616719	BSC-M33B
616720	BSC-M33H

30807 BSC-M222

- Total linked length: 3 meters
- Composed of 3 sections of 1 m each
- Working voltage: 132 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616721	BSC-M222U
616722	BSC-M222B
616723	BSC-M222H

INSULATING POLES

Connectable pole UNE 50508

INDOOR and OUTDOOR
Use in humid environment

Multiuse poles according to EN-50508 standard of two or three-section. Manufactured with a Ø 38,4 mm polyester and fiberglass tube and filled with polyurethane foam that complies with the IEC 60855 standard.
Head: U (Universal), B (Bayonet).
Includes carrying bag.



U
Universal Head



B
Bayonet Head

IEC 60855
UNE-EN-50508



30807 BSC-A43

Total linked length: 3.5 meters
Composed of 1 section of 2 m and 1 section of 1.5 m
Working voltage: 132 kV
For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616724	BSC-A43U
616725	BSC-A43B

30807 BSC-A44

Total linked length: 4 meters
Composed of 2 sections of 2 m each
Working voltage: 220 kV
For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616726	BSC-A44U
616727	BSC-A44B

30807 BSC-A54

Total linked length: 4.5 meters
Composed of 1 section of 2 m + 1 section of 2.5 m
Working voltage: 220 kV
For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616728	BSC-A54U
616729	BSC-A54B

30807 BSC-A55

Total linked length: 5 meters
Composed of 2 sections of 2.5 m each
Working voltage: 380 kV
For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616730	BSC-A55U
616731	BSC-A55B

30807 BSC-A66

Total linked length: 6 meters
Composed of 2 sections of 3 m each
Working voltage: 380 kV
For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616732	BSC-A66U
616733	BSC-A66B

30807 BSC-A444

Total linked length: 6 meters
Composed of 3 sections of 2 m each
Working voltage: 380 kV
For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616734	BSC-A444U
616735	BSC-A444B



H
Hexagonal Head of 22



Hexagonal of 22

IEC 60855
UNE-EN-50508



INDOOR and OUTDOOR
Use in humid environment

Multiuse poles according to EN-50508 standard of 1 single-section. Manufactured with a Ø 38.4 mm polyester and fiberglass tube and filled with polyurethane foam that complies with the IEC 60855 standard.
Head: H (Hexagonal of 22)
Includes carrying bag.
To operate with potential lowering equipment mod. PATC-BP (page 235).

30909 BSC-132/BP
Pole downside potential

- Total length: 3 meters
- Working voltage: 132 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
672210	**BSC-132/BP**

INSULATING POLES

Other insulating poles



BDC-H

BEF

BDC

INDOOR and OUTDOOR
Use in dry environment

30809 BEF-9000
Fuse disconnecting pole

One-section fuse disconnecting pole made of polyester and fiberglass with a diameter of 40 mm, featuring a handguard and grip for operating the sliding mechanism.
The head has two opening positions to accommodate different diameters.

- For fuses with diameter from 30 to 90 mm
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.	Working voltage	Length
625105	**BEF-9000/24**	24 kV	1.07 m
625107	**BEF-9000/36**	36 kV	1.72 m

30809 BDC
Insulating condenser discharging pole

Insulating condenser discharging pole with earthing system. It is also suitable for devices with static electricity.
Pole with only one section made of polyester and fiberglass tube Ø 32 mm, with hand protector, grip and tip.

- For INDOOR and OUTDOOR use in dry environment

Code	Ref.	Working voltage	Length
625110	**BDC**	45 kV	1.6 m
625200	**BDC-H 0,6/1-2**	1 kV	0.6 m
625250	**BDC-H 0,6/1-3**	1 kV	0.6 m
625260	**BDC-H 0,6/1-5**	1 kV	0.6 m
625270	**BDC-H 0,6/1-7**	1 kV	0.6 m
625220	**BDC-H 1/25-4**	25 kV	1 m
625210	**BDC-H 1,6/45-5**	45 kV	1.6 m
625230	**BDC-H 1,6/45-4**	45 kV	1.6 m
625240	**BDC-H 2/66-6**	66 kV	2 m
625280	**BDC-H 2,5/66-5,5**	66 kV	2.5 m

Other insulating poles





BCC





BGT



BCC

BGT



30809 BCC
Cable cutting pole

Made from a fibreglass tube filled with polyurethane foam.

It allows for the cutting of aluminium cables from 16 to 95 mm² and steel cables up to 3 mm in diameter.

- Length: 2100 mm
- Diameter: 36 mm
- Weight: 3500 g

Code	Ref.
625111	BCC-21

* Under request.

30808 BGT
Trigger pole

Made from a fibreglass tube filled with polyurethane foam.

The mechanism of the pole, commonly known as "trigger or shotgun," features a sliding handle that opens and closes the hook, facilitating operations in electrical work.

- Length: 2100 mm
- Diameter: 32 mm
- Weight: 2000 g

Code	Ref.
625112	BGT

* Under request.

30810 SC33
Curved Insulated Pruning Saw 1000 V

The SC33 pruning saw is used for trimming tree branches near overhead lines with a voltage of up to 1 kV. It can be attached to any pole with a universal head.

- Metal saw with a serrated tip
- Bidirectional cutting teeth
- Complies with EN 60832-2:2010
- Length of the saw: 330 mm
- Blade thickness: 1.2 mm
- Weight: 140 g

Code	Ref.
625113	SC-33

* Under request.

Accessories for poles



30810 CPS
Pole tester

The pole tester is effective for verifying the safety and condition of insulating poles before carrying out electrical work.
Its main features include:

Voltage Testing: Verifies the ability to withstand different voltages.
Resistance Measurement: Measures the electrical resistance of the insulator.

Condition Indicators: Shows whether the pole is suitable for use.
Portability: Lightweight and easy to transport design.
Durability: Resistant to adverse conditions.

Ease of Use: Simple controls.
Data Storage: Saves test results.
Certification: Complies with safety regulations.

Code	Ref.
635410	CPS



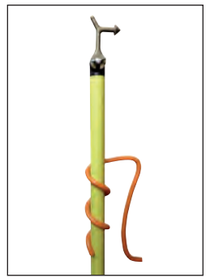


30812 AVPM
Detector adapter to maneuvering pole

Adapter for Medium Voltage detectors that allows their fixing to the maneuvering poles with Universal head. It permits the maneuvering operations without damaging the detector. Immediately afterward you can check if the power is off.

Code	Ref.
630175	AVPM





30810 GSP
Hook for pole suspension

PVC device that fits to the maneuvering poles allowing their suspension while doing the job.

Code	Ref.	Ø
630170	GSP-32	32 mm





30812 GPB
Coil holder hook

Insulating band coil holder hook, Universal-K connection.

Code	Ref.
630177	GPB

Accessories for poles









30810 JSP-40
Wall support for poles

Product supplied with screws and nail plugs.

Code	Ref.	Ø
615206	JSP-40	40

30903 JSF-2
Fuse holder

Product supplied with screws and nail plugs.

Code	Ref.
545135	JSF-2



30811 SM-02R
Metric-10 maneuvering hook

Maneuvering hook with M-10 thread.

Code	Ref.
630100	SM-02R



30811 SM-02C
Hexagonal-12 maneuvering hook

Maneuvering hook with Hexagonal-12 head.

Code	Ref.
630110	SM-02C



30811 SM-02K
Universal-K maneuvering hook

Maneuvering hook with Universal-K head.

Code	Ref.
630120	SM-02K

INSULATING POLES

Accessories for poles







30811 SM-03K
Straight Universal-K maneuvering hook

Maneuvering hook with straight Universal-K connection.

Code	Ref.
630122	SM-03K

30811 SM-90K
Universal-K 90° maneuvering hook

Maneuvering hook with Universal-K 90° connection.

Code	Ref.
630123	SM-90K

30812 ADAP. B-UK
Bayonet to Universal-K adapter

Adapter from Bayonet to Universal-K head.

Code	Ref.
630107	ADAP. B-UK

30812 ADAP. B-M10
Bayonet to M-10 adapter

Adapter from Bayonet head to M-10 thread.

Code	Ref.
630108	ADAP. B-M10



30812 ADAP. B-P
Bayonet to Polivalent adapter

Adapter from Bayonet head to Polivalent.

Code	Ref.
630167	ADAP. B-P



30812 ADAP. H12-M10
Hexagonal-12 to M-10 adapter

Adapter from Hexagonal-12 head to M-10 thread.

Code	Ref.
630101	ADAP. H12-M10



30811 GA-TML
Operating hook

Operating hook for the high voltage overhead lines earthing equipments model PATL-TML.

Code	Ref.
630116	GA-TML

INSULATING POLES

Accessories for poles



30812 ADAP. UK-B
Universal-K to Bayonet adapter

Adapter from Universal-K to Bayonet head.

Code	Ref.
630162	ADAP. UK-B



30812 ADAP. UK-P
Universal-K to Polivalent adapter

Adapter from Universal-K to Polivalent head.

Code	Ref.
630163	ADAP. UK-P



30812 ADAP. H12-UK
Hexagonal-12 to Universal-K adapter

Adapter from Hexagonal-12 to Universal-K head.

Code	Ref.
630109	ADAP. H12-UK



30812 ADAP. M10-UK
M-10 to Universal-K adapter

Adapter from M-10 thread to Universal-K head.

Code	Ref.
630106	ADAP. M10-UK



30812 ADAP. UK-M10
Universal-K to M-10 adapter

Adapter from Universal-K head to M-10 head.

Code	Ref.
630102	ADAP. UK-M10



30812 ADAP. H12-B
Hexagonal-12 to Bayonet adapter

Adapter from Hexagonal-12 to Bayonet head.

Code	Ref.
630166	ADAP. H12-B



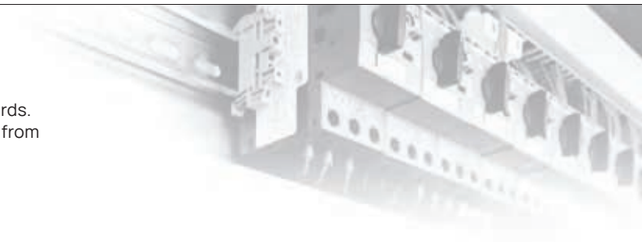
30811 GS-49
Rescue hook

Rescue hook with M-10 thread.

Code	Ref.
630130	GS-49

EARTHING DEVICES

Low voltage electric panels



30902 ECBT-NH

Earthing and short-circuit kit for low-voltage distribution boards.
The main reason for their installation is to protect the worker from accidental power-on or return of voltage during repair work.
With insulated pole for extracting blades using M-10 screw.
According to IEC 61230 standard.





NH1-3
Disconnecting and earthing blade



TT-38A
Earthing lathe

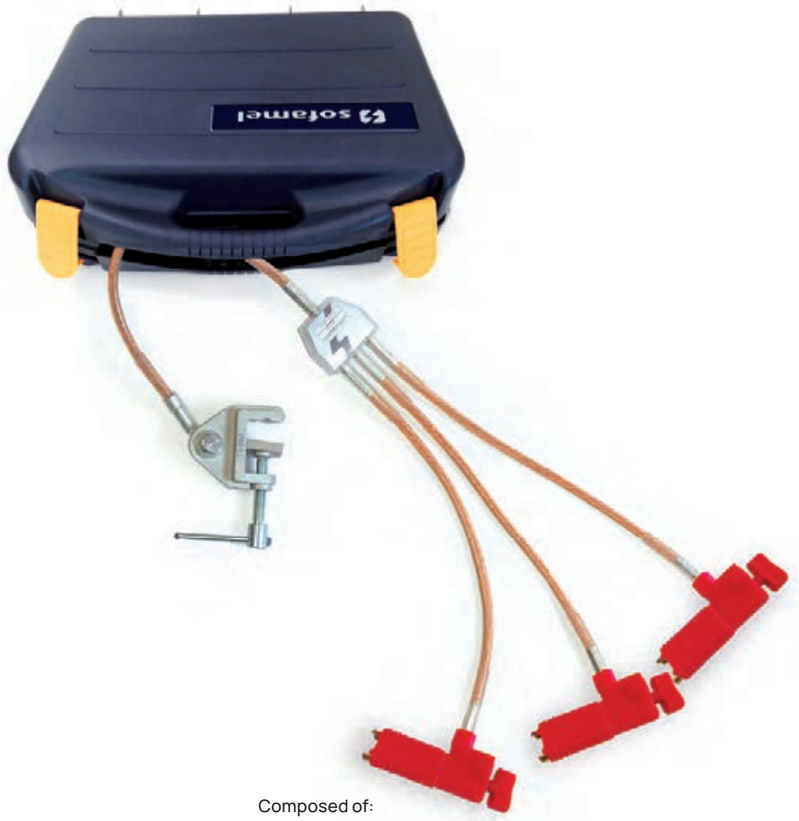
Composed of:

- 3 disconnecting and earthing NH1-3 blades.
- 3 copper PVC-insulated cables 25 mm² section and 0.2 - 0.4 - 0.6 m for short circuit of phases.
- 1 copper PVC-insulated cables 25 mm² section and 0.5 m long for earthing.
- 1 branch-joint connector (4 cables).
- 1 insulated pole for placing blades.
- 1 TT-38A earthing lathe.
- 1 plastic case for storage and transport.

Code	Ref.	Short circuit current Max. ICC
659130	ECBT-NH	6.9 kA/1s

30902 ECBT-PTA3
3 clamps

Earthing and short-circuit kit for low-voltage distribution boards.
The main reason for their installation is to protect the worker from accidental power-on or return of voltage during repair work.
According to IEC 61230 standard.





PTA
Insulated earth clamp



TT-38A
Earthing lathe

Composed of:

- 3 insulated PTA earth clamps.
- 3 copper PVC-insulated cables 25 mm² section and 0.4 m long for short circuit of phases.
- 1 cooper PVC-insulated cables 25 mm² section and 1 m or 2 m long (depending on model) for earthing.
- 1 branch-joint connector (4 cables).
- 1 TT-38A earthing lathe.
- 1 plastic case for storage and transport.

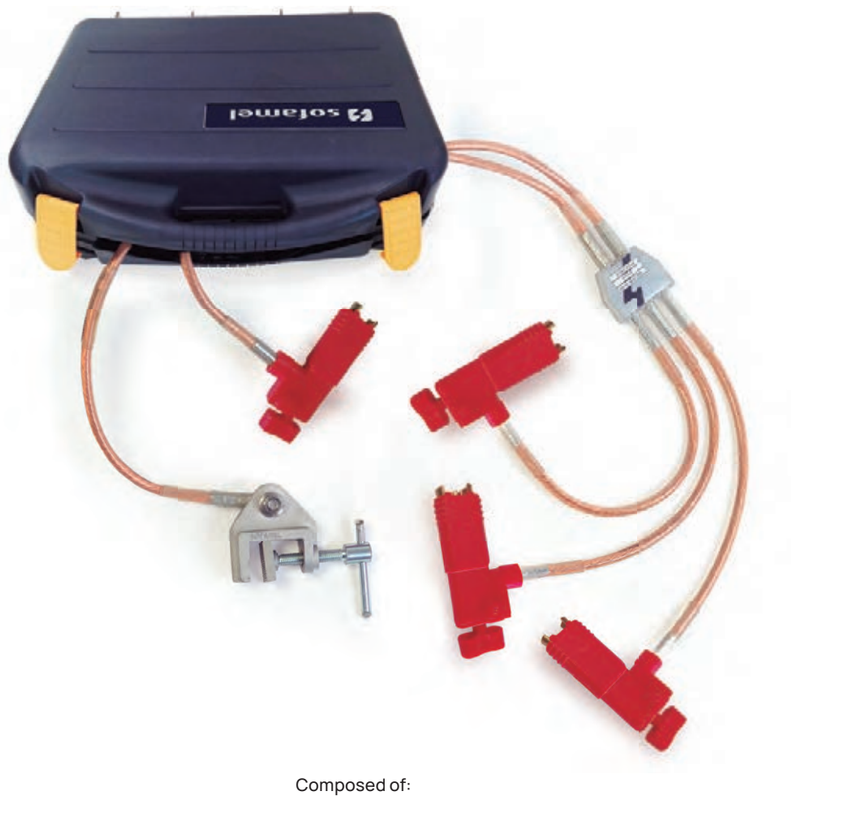
Code	Ref.	Length	Short circuit current Max. ICC
659140	**ECBT-PTA3-1**	1 m	6.9 kA/1s
659141	**ECBT-PTA3-2**	2 m	

EARTHING DEVICES

Low voltage electric panels

30902 ECBT-PTA4
4 clamps

Earthing and short-circuit kit for low-voltage distribution boards.
The main reason for their installation is to protect the worker from accidental power-on or return of voltage during repair work.
According to IEC 61230 standard.





PTA
Insulated earth clamp



TT-38A
Earthing lathe

Composed of:

- 4 insulated PTA earth clamps and the neutral.
- 3 copper PVC-insulated cables 25 mm² section and 1.2 m long for short circuit of phases.
- 1 copper cables 25 mm² section and 1.5 m long for the neutral's earthing.
- 1 PVC-insulated cable 25 mm² section and 2 m long for earthing.
- 1 branch-joint connector (5 cables).
- 1 TT-38A earthing lathe.
- 1 plastic case for storage and transport.

Code	Ref.	Short circuit current Max. ICC
659150	**ECBT-PTA4**	6.9 kA/1s

30902 ECBT-SHUNT3
3 clamps

Earthing and short-circuit kit for low-voltage distribution boards.
The main reason for their installation is to protect the worker from accidental power-on or return of voltage during repair work.
According to IEC 61230 standard.





SHUNT SHCD and SHUNT SHPL
Insulated earth clamps



TT-38A
Earthing lathe

Composed of:

- 3 insulated SHUNT clamps for short circuit of the phases.
- 3 copper PVC-insulated cables 25 mm² section and 0.4 m long for short circuit of phases.
- 1 cooper PVC-insulated cables 25 mm² section and 1 m long for earthing.
- 1 branch-joint connector (4 cables).
- 1 TT-38A earthing lathe.
- 1 plastic case for storage and transport.

Code	Ref.				Maximum current of work
659040	**ECBT-SHCD3**	Bare wire	•		200 A
659045	**ECBT-SHPL3**	Platen		•	

EARTHING DEVICES

Low voltage electric panels

30902 ECBT-SHUNT4
4 clamps

Earthing and short-circuit kit for low-voltage distribution boards.
The main reason for their installation is to protect the worker from accidental power-on or return of voltage during repair work.
According to IEC 61230 standard.





SHUNT SHCD and SHUNT SHPL
Insulated earth clamps



TT-38A
Earthing lathe

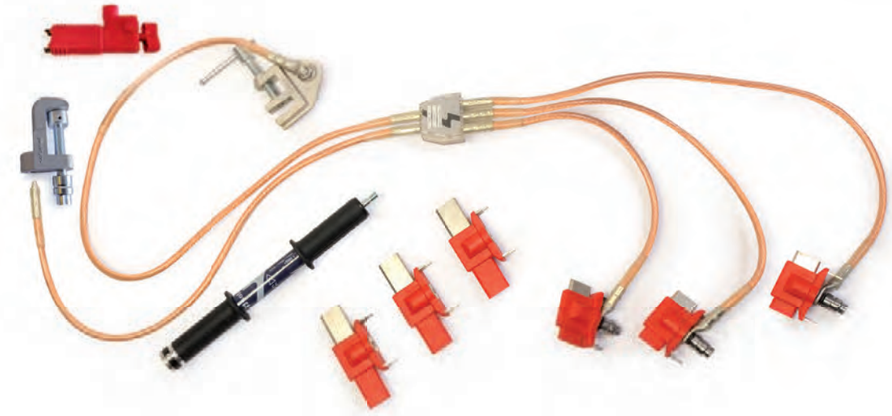
Composed of:

- 4 insulated SHUNT earth clamps and the neutral.
- 3 copper PVC-insulated cables 25 mm² section and 1.2 m long for short circuit of phases.
- 1 copper cables 25 mm² section and 1.5 m long for the neutral's earthing.
- 1 PVC-insulated cable 25 mm² section and 2 m long for earthing.
- 1 branch-joint connector (5 cables).
- 1 TT-38A earthing lathe.
- 1 plastic case for storage and transport.

Code	Ref.				Maximum current of work
659050	**ECBT-SHCD4**	Bare wire	•		200 A
659055	**ECBT-SHPL4**	Platen		•	

30902 ECBT-ID

Earthing and short-circuit kit for low-voltage distribution boards.
The main reason for their installation is to protect the worker from accidental power-on or return of voltage during repair work.
With insulated pole for extracting blades using M-10 screw.
According to IEC 61230 standard.



Composed of:

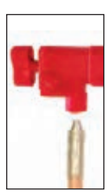
- 3 disconnecting and earthing NH00 blades.
- 3 disconnecting and earthing NH1-3 blades.
- 3 copper PVC-insulated cables 25 mm² section and 0.45 - 0.60 - 0.85 m long for short circuit of phases.
- 1 m copper PVC-insulated cables 25 mm² section and 0.75 m long for neutral.
- 1 m copper PVC-insulated cables 25 mm² section and 1 m long for earthing.
- 1 insulated PTA neutral clamp.
- 1 MPUCN neutral clamp.
- 1 insulated pole for placing blades.
- 1 TT-38A earthing lathe.
- 1 plastic case for storage and transport.
- 1 branch-joint connector (5 ends).



Code	Ref.	Short circuit current Max. ICC
659160	**ECBT-ID**	6.9 kA/1s



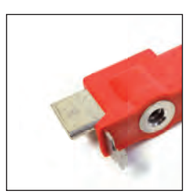
MPUCN
Neutral clamp



PTA
Insulated neutral clamp



TT-38A
Earthing lathe



NH1-3
Disconnecting and earthing blade



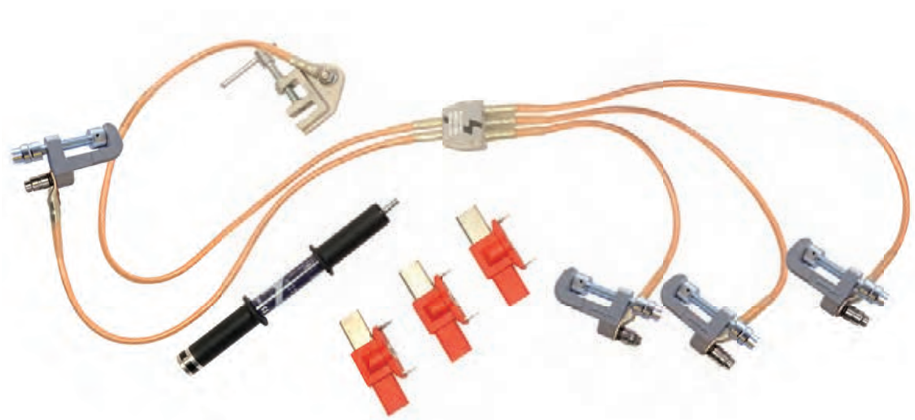
NH00
Disconnecting and earthing blade

EARTHING DEVICES

Low voltage electric panels

30902 ECBT-GNF

Earthing and short-circuit kit for low-voltage distribution boards.
The main reason for their installation is to protect the worker from accidental power-on or return of voltage during repair work.
With insulated pole for extracting blades using M-10 screw.
According to IEC 61230 standard.



Composed of:

- 3 disconnecting and earthing NH1-3 blades.
- 4 disconnecting and earthing MPUC clamp.
- 3 copper PVC-insulated cables 35/50 mm² section and 0.45 - 0.60 - 0.85 m long for short circuit of phases.
- 1 copper PVC-insulated cables 35/50 mm² section and 0.75 m long for neutral.
- 1 copper PVC-insulated cables 35/50 mm² section and 1 m long for earthing.
- 1 branch-joint connector (5 cables).
- 1 insulated pole for placing blades.
- 1 TT-38A earthing lathe.
- 1 nylon bag to store and transport the equipment.



Code	Ref.	Section	Short circuit current Max. ICC
659170	**ECBT-GNF/35**	35 mm²	9 kA/1s
659180	**ECBT-GNF/50**	50 mm²	12 kA/1s



MPUC
Earthing clamp



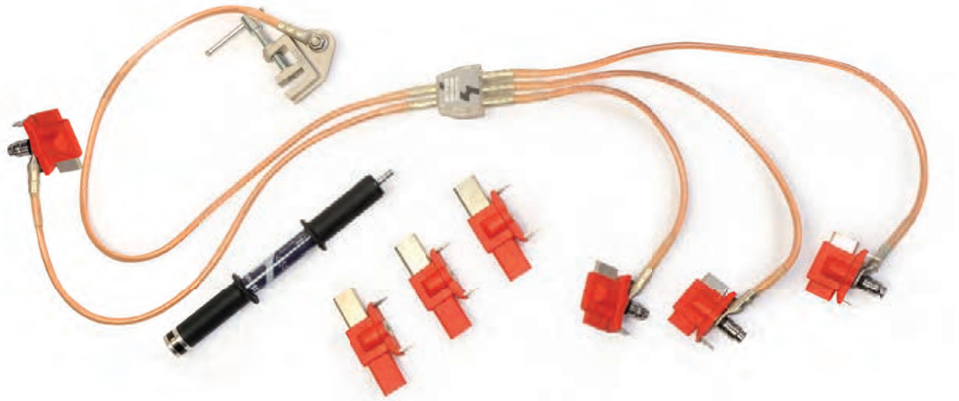
TT-38A
Earthing lathe



NH1-3
Disconnecting and earthing blade

30902 ECBT-ID-NH

Earthing and short-circuit kit for low-voltage distribution boards.
The main reason for their installation is to protect the worker from accidental power-on or return of voltage during repair work.
With insulated pole for extracting blades using M-10 screw.
According to IEC 61230 standard.





Composed of:

- 4 disconnecting and earthing NH00 blades.
- 4 disconnecting and earthing NH1-3 blades.
- 3 copper PVC-insulated cables 16 mm² section and 0.50 m long for short circuit of phases.
- 1 copper PVC-insulated cables 16 mm² section and 0.50 m long for neutral.
- 1 copper PVC-insulated cables 16 mm² section and 1 m long for earthing.
- 1 branch-joint connector (5 cables).
- 1 insulated pole for placing blades.
- 1 TT-38A earthing lathe.
- 1 nylon bag to store and transport the equipment.

Code	Ref.	Short circuit current Max. ICC
659217	**ECBT-ID-NH**	6.9 kA/1s



TT-38A
Earthing lathe



NH1-3
Disconnecting and earthing blade



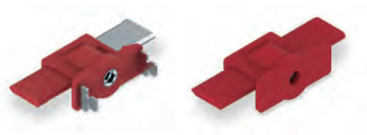
NH00
Disconnecting and earthing blade

30903 BLADES
Disconnecting and earthing blades



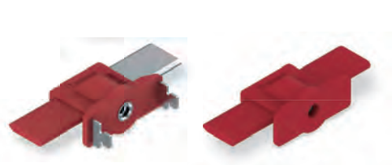
30903 NH00 / NH000

Code	Ref.	Description	Short circuit current Max ICC
659185	**NH000**	**Earthing**	12 kA/1s
659126	**NH000/A**	**Fully isolated**	



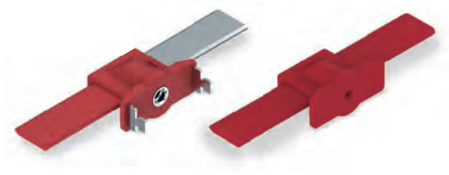
30903 NH0

Code	Ref.	Description	Short circuit current Max ICC
659186	**NH0**	**Earthing**	12 kA/1s
659127	**NH0/A**	**Fully isolated**	



30903 NH1-3

Code	Ref.	Description	Short circuit current Max ICC
659187	**NH1-3**	**Earthing**	12 kA/1s
659128	**NH1-3/A**	**Fully isolated**	



30903 NH4

Code	Ref.	Description	Short circuit current Max ICC
659188	**NH4**	**Earthing**	12 kA/1s
659129	**NH4/A**	**Fully isolated**	

30903 POLE
Insulated pole for placing blades



30903 PC

Code	Ref.
659131	**PC**

30903 EARTHING CLAMPS



MPUC | SHUNT (SHPC, SHCD and SHPL) | PTA

30903 MPUC

Code	Ref.	Dimensions	Capacity	Short circuit current Max. ICC	Weight
659133	MPUCN	148 x 55 x 33 mm	⏍ 35 mm	12 kA/1s	250 g
659139	MPUCF	148 x 55 x 33 mm	∅ 20 mm		

30903 PTA

Code	Ref.	⏀ max.	Short circuit current Max. ICC	Weight
659132	PTA	8 - 22 mm	6,9 kA/1s	325 g

30903 SHUNT

Code	Ref.	Dimensions	Capacity	Point proof	Splice				Max. working current	Voltage Max.	Weight
659020	SHPC	143 x 54 x 26 mm	∅ 35-240 mm²	Taking 4 mm	Connector M8	•			200 A	1000 V	250 g
659021	SHCD	143 x 54 x 26 mm	∅ 35-240 mm²				•				
659022	SHPL	143 x 54 x 26 mm	⏍ 2-25 mm					•			



30903 SHPC2-035015
Kit by-pass

Cable type H07RMF 35 mm²
2 clamps SHUNT SHPC

Code	Ref.	Length cable	Capacity	Point test		Max. working current	Voltage Max.	Weight
659030	SHPC2-035015	1.5 m	∅ 35-240 mm²	Taking 4 mm	•	200 A	1000 V	-



30903 FLEXIBLE SHUNT CABLE M8 / M8
By-pass cable

Cable type H07RMF 35 mm²

Code	Ref.	Length cable	Capacity	Max. working current	Voltage Max.	Weight
659035	SH035015	1.5 m	∅35-240 mm²	200 A	1000 V	-

* Consult for other lengths.

30902 ECBT-MPUE

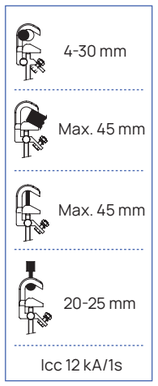
Earthing and short-circuit equipment for low voltage electric panels. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.
The MPUE clamps can be fixed on bare cylindrical conductors, flat bars, bending bus-bars or fixing points.

Each one has its own fixed handle.
According to IEC 61230 standard.





MPUE
Clamp



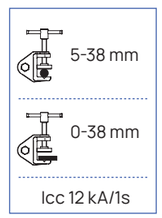
Composed of:

- 4 MPUE aluminium alloy clamps with screw tighten and handle insulated grip.
- 3 copper cables with PVC insulation of 35 mm² section and 0.6 m long.
- 1 copper cable with PVC insulation of 25 mm² section and 2 m long.
- 1 TT-38A milling earthing lathe.
- 1 plastic case to store and transport the equipment.

Code	Ref.	Short circuit current Max. ICC
659000	ECBT-MPUE/35	9 kA/1s



TT-38A
Earthing lathe



IEC 61230

30902 ECBT-MPUBTH

Earthing and short-circuit equipment for low voltage electric panels.
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MPUBT/H clamps for low voltage are perfect to be fixed on flat bars.

According to IEC 61230 standard.





MPUBT/H
Clamp

0-35 mm

Icc 9 kA/1s

Composed of:

- 4 MPUBT/H aluminium alloy clamps with screw tighten.
- 1 insulated grip with polivalent head.
- 3 copper cables with PVC insulation of 35 mm² section and 0.6 m long.
- 1 copper cable with PVC insulation of 25 mm² section and 2 m long.
- 1 TT-38A milling earthing lathe.
- 1 plastic case to store and transport the equipment.

Code	Ref.	Short circuit current Max. ICC
659001	ECBT-MPUBTH/35	9 kA/1s



TT-38A
Earthing lathe

5-38 mm

0-38 mm

Icc 12 kA/1s

IEC 61230

EARTHING DEVICES

Low voltage electric panels

30902 ECBT-4MPUL

Earthing and short-circuit equipment for low voltage electric panels.The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MPUL clamps can be fixed on bare cylindrical conductors, flat bars, bending bus-bars or fixing points.

According to IEC 61230 standard.





MPUL
Clamp

4-30 mm

Max. 45 mm

Max. 45 mm

20-25 mm

Icc 30 kA/1s

Composed of:

- 4 MPUL aluminium alloy clamps with screw tighten and handle insulated grip.
- 3 copper cables with PVC insulation of 70/95/120 mm² section and 0,6 m long.
- 1 copper cable with PVC insulation of 70/95/120 mm² section and 2 m long.
- 1 TT-50 earthing lathe.
- 1 nylon bag to store and transport the equipment.

Code	Ref.	Short circuit current Max. ICC
659201	ECBT-4MPUL-7070	19 kA/1s
659209	ECBT-4MPUL-9595	25.5 kA/1s
659210	ECBT-4MPUL-120120	30 kA/1s



TT-50
Earthing lathe

0-43 mm

0-43 mm

Icc 40 kA/1s

IEC 61230

30902 ECBT-4MPUHL

Earthing and short-circuit equipment for low voltage electric panels. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

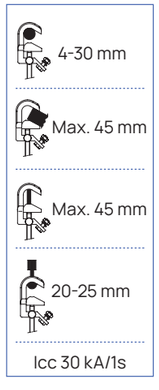
The MPUBT/H clamps for low voltage are perfect to be fixed on flat bars.

According to IEC 61230 standard.





MPUH-L
Clamp



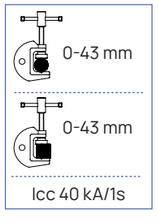
Composed of:

- 4 MPUH-L aluminium alloy clamps with screw tighten.
- 1 insulated grip with polivalent head.
- 3 copper cables with PVC insulation of 120 mm² section and 0.6 m long.
- 1 copper cable with PVC insulation of 120 mm² section and 2 m long.
- 1 TT-50 milling earthing lathe.
- 1 nylon bag to store and transport the equipment.

Code	Ref.	Short circuit current Max. ICC
659200	**ECBT-4MPUHL-120120**	30 kA/1s



TT-50
Earthing lathe



IEC 61230

EARTHING DEVICES

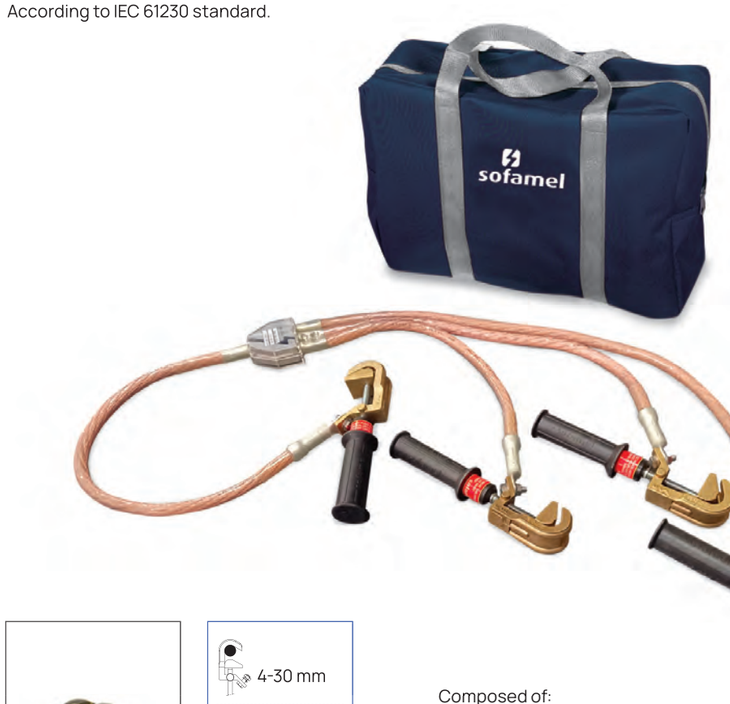
Low voltage electric panels

30906 PATC-3MPUL

Earthing and short-circuit equipment for low/medium voltage e lectric panels.
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MPU clamps can be fixed on bare cylindrical conductors, flat bars, bending bus-bars or fixing points.

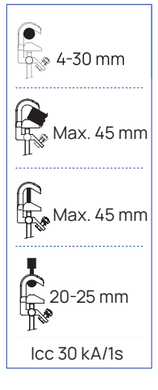
According to IEC 61230 standard.







MPUL
Clamp



Composed of:

- 4 MPUL aluminium alloy clamps with screw tighten and handle insulated grip.
- 3 copper cables with PVC insulation of 95 mm² section and 1 - 0.7 - 0.55 m long.
- 1 copper cable with PVC insulation of 95 mm² section and 0.75 m long.
- 1 branch-joint connector.
- 1 nylon bag to store and transport the equipment.

Code	Ref.	Short circuit current Max. ICC
662012	**PATC-3MPUL-9595**	25 kA/1s

IEC 61230

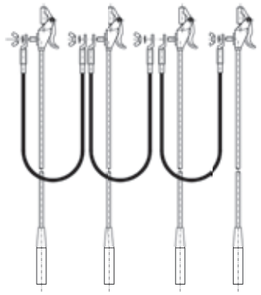


30904 ELBT-CC

Short-circuit equipment for low voltage overhead lines. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The PEBT clamp is installed on the bare conductor by leaning it on this one and pressing downwards.
The clamp mechanism guarantees a permanent and steady contact.

According to IEC 61230 standard.



Composed of:

- 4 PEBT spring clamps with 70 cm poles for cylindrical conductors with diameter between 3 and 18 mm.
- 3 copper cables with PVC insulation of 16 mm² section and 0.6 m long.
- 1 nylon bag to store and transport the equipment.

Code	Ref.	Short circuit current Max. ICC
658110	**ELBT-CC**	4 kA/1s

IEC 61230



* Depending on availability, the colour of the cover may vary.



PEBT
Clamp

EARTHING DEVICES

Low voltage overhead lines



30904 ELBT-PAT/CC

Earthing and short-circuit equipment for low voltage overhead lines.
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The PEBT clamp is installed on the bare conductor by leaning it on this one and pressing downwards. The clamp mechanism guarantees a permanent and steady contact.

According to IEC 61230 standard.



Composed of:

- 4 PEBT spring clamps with 70 cm poles for cylindrical conductors with diameter between 3 and 18 mm.
- 3 copper cables with PVC insulation of 16 mm² section and 0.6 m long.
- 1 copper cable with PVC insulation of 16 mm² section and 15 m long.
- 1 TT-38A milling earthing lathe.
- 1 earthing rod.
- 2 nylon bags to store and transport the equipment.

Code	Ref.	Short circuit current Max. ICC
658120	**ELBT-PAT/CC**	4 kA/1s

IEC 61230



* Depending on availability, the colour of the cover may vary.



PEBT
Clamp



TT-38A
Earthing lathe

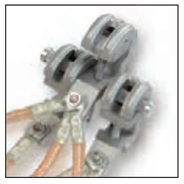
30905 PATL-MPUB

Earthing and short-circuit equipment for overhead lines. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MPUB clamp is fixed on bare conductors by screw-tightening. This equipment has got a MPUP clamp (carrier) which facilitates the lifting and placing of the three clamps at the same time reducing installation time considerably.

According to IEC 61230 standard.



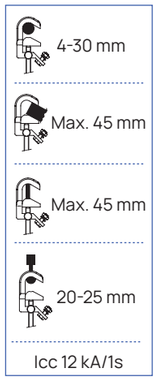


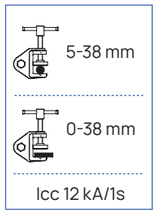


MPUB
Clamp



TT-38A
Earthing lathe





Composed of:

- 2 MPUB aluminium alloy clamps with screw tighten for cylindrical conductors with diameter between 4 and 30 mm.
- 1 MPUP aluminium alloy clamp (carrier) with screw tighten for cylindrical conductors with diameter between 4 and 30 mm.
- 2 copper cables with PVC insulation of 16/25/35 mm² section depending on model and 2.5 m long.
- 1 copper cable with PVC insulation of 16/16/25 mm² section depending on model and 15 m long.
- 1 TT-38A milling earthing lathe.
- 1 earthing rod.
- 1 telescopic pole (1.10 m folded and 2 m extended).
- 1 plastic case to store and transport the equipment (Optional with wheels).
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC between phases
660290	**PATL-MPUB/1616**	4.0 kA/1s
660300	**PATL-MPUB/2516**	6.9 kA/1s
660310	**PATL-MPUB/3525**	9.0 kA/1s

IEC 61230

* Depending on availability, the colour of the cover may vary.

EARTHING DEVICES

Medium and high voltage overhead lines - Screw clamps

30905 PATL-MPLB

Earthing and short-circuit equipment for overhead lines.
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MPL clamp is fixed on bare conductors by screw-tightening. This equipment has got a MPLP clamp (carrier) which facilitates the lifting and placing of the three clamps at the same time reducing installation time considerably.

According to IEC 61230 standard.

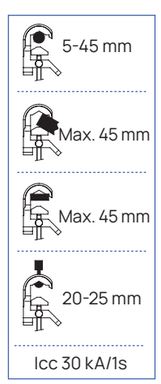


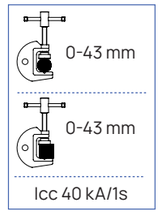


MPL
Clamp



TT-50
Earthing lathe









Composed of:

- 2 MPL aluminium alloy clamps with screw tighten for cylindrical conductors with diameter between 5 and 45 mm.
- 1 MPLP aluminium alloy clamp (carrier) with screw tighten for cylindrical conductors with diameter between 5 and 45 mm.
- 2 copper cables with PVC insulation of 70 mm² section and 2.5 m long.
- 1 copper cable with PVC insulation of 70 mm² section and 15 m long.
- 1 TT-50 milling earthing lathe.
- 1 earthing rod.
- 1 telescopic pole (1.10 m folded and 2 m extended).
- 1 bag to store and transport the equipment.
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC
665285	**PATL-MPLB/7070**	19 kA/1s

IEC 61230

* Depending on availability, the colour of the cover may vary.

Medium and high voltage overhead lines - Automatic clamps



30905 PATL-MC-3
3 clamps

Earthing and short-circuit equipment for overhead lines.
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MC clamp is fixed on bare conductors by pressure and can be removed by an operating hook. The three clamps can be placed at the same time thanks to the dispenser head facilitating operator's work.

According to IEC 61230 standard.

3-20 mm

Icc 9 kA/1s



MC
Clamp



PP-3U
Clamp dispenser

* Depending on availability, the colour of the cover may vary.

Composed of:

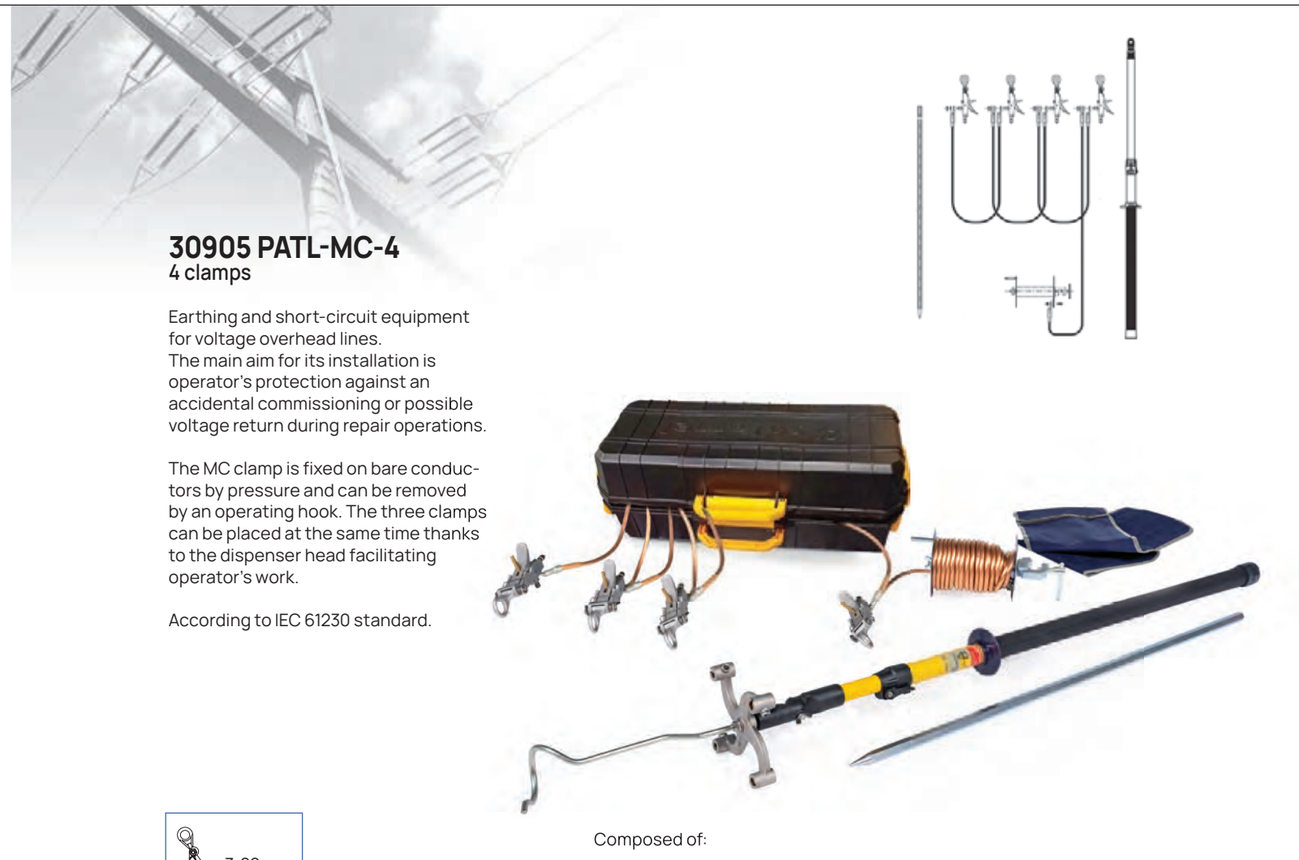
- 3 MC aluminium alloy clamps with automatic activation fastening for cylindrical conductors with diameter between 3 and 20 mm.
- 1 clamp dispenser head with recovery hook.
- 2 copper cables with PVC insulation of 16/25/35 mm² section depending on model and 2.5 m long.
- 1 copper cable with PVC insulation of 16/25 mm² section depending on model and 15 m long.
- 1 metallic spool to store the 15 m of earthing cable.
- 1 telescopic pole (1.10 m folded and 2 m extended).
- 1 earthing rod.
- 1 plastic case to store and transport the equipment (Optional with wheels).
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC between phases
660225	**PATL-MC-3/1616**	4.0 kA/1s
660230	**PATL-MC-3/2516**	6.9 kA/1s
660240	**PATL-MC-3/3525**	9.0 kA/1s

IEC 61230

EARTHING DEVICES

Medium and high voltage overhead lines - Automatic clamps



30905 PATL-MC-4
4 clamps

Earthing and short-circuit equipment for voltage overhead lines.
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MC clamp is fixed on bare conductors by pressure and can be removed by an operating hook. The three clamps can be placed at the same time thanks to the dispenser head facilitating operator's work.

According to IEC 61230 standard.

3-20 mm

Icc 9 kA/1s



MC
Clamp



PP-4U
Clamp dispenser

* Depending on availability, the colour of the cover may vary.

Composed of:

- 4 MC aluminium alloy clamps with automatic activation fastening for cylindrical conductors with diameter between 3 and 20 mm.
- 1 clamp dispenser head with recovery hook.
- 3 copper cables with PVC insulation of 16/25/35 mm² section depending on model and 2.5 m long.
- 1 copper cable with PVC insulation of 16/25 mm² section depending on model and 15 m long.
- 1 metallic spool to store the 15 m of earthing cable.
- 1 telescopic pole (1.10 m folded and 2 m extended).
- 1 earthing rod.
- 1 plastic case to store and transport the equipment (Optional with wheels).
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC between phases
660245	**PATL-MC-4/1616**	4.0 kA/1s
660246	**PATL-MC-4/2516**	6.9 kA/1s
660247	**PATL-MC-4/3525**	9.0 kA/1s

IEC 61230



30905 PATL-MCL-3
3 clamps

Earthing and short-circuit equipment for overhead lines.
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

MCL clamps are installed on the conductor by pressure and removed using a recovery hook. The three clamps can be placed at the same time, thanks to the clamp-holder plate, so facilitating the operator's work.

According to IEC 61230 standard.



MCL
Clamp



PP-3U MCL
Clamp dispenser

* Depending on availability, the colour of the cover may vary.

Composed of:

- 3 aluminium alloy clamps closing by automatic spring activation for cylindrical conductors with diameter between 8 and 30 mm.
- 1 clamp dispenser head with recovery hook.
- 2 copper cables with PVC insulation of (16, 25, 35, 50, 70 mm2) section depending on model and 2.5 m long.
- 1 copper cable with PVC insulation of (16, 16, 25, 35, 50 mm2) section depending on model and 15 m long.
- 1 metallic spool to store the 15 m of earthing cable.
- 1 telescopic pole (1.10 m folded and 2 m extended).
- 1 earthing rod.
- 1 plastic case to store and transport the equipment (Optional with wheels).
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC between phases
660330	**PATL-MCL-3/1616**	4.0 kA/1s
660335	**PATL-MCL-3/2516**	6.9 kA/1s
660340	**PATL-MCL-3/3525**	9.0 kA/1s
660345	**PATL-MCL-3/5035**	12.0 kA/1s
660350	**PATL-MCL-3/7050**	19.0 kA/1s

IEC 61230

EARTHING DEVICES

Medium and high voltage overhead lines - Automatic clamps



30905 PATL-MCL-4
4 clamps

Earthing and short-circuit equipment for overhead lines.
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

MCL clamps are installed on the conductor by pressure and removed using a recovery hook. The three clamps can be placed at the same time, thanks to the clamp-holder plate, so facilitating the operator's work.

According to IEC 61230 standard.



MCL
Clamp



PP-4U MCL
Clamp dispenser

* Depending on availability, the colour of the cover may vary.

Composed of:

- 4 aluminium alloy clamps closing by automatic spring activation for cylindrical conductors with diameter between 8 and 30 mm.
- 1 clamp dispenser head with recovery hook.
- 3 copper cables with PVC insulation of (16, 25, 35, 50, 70 mm2) section depending on model and 2.5 m long.
- 1 copper cable with PVC insulation of (16, 16, 25, 35, 50 mm2) section depending on model and 15 m long.
- 1 metallic spool to store the 15 m of earthing cable.
- 1 telescopic pole (1.10 m folded and 2 m extended).
- 1 earthing rod.
- 1 plastic case to store and transport the equipment (Optional with wheels).
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC between phases
660355	**PATL-MCL-4/1616**	4.0 kA/1s
660360	**PATL-MCL-4/2516**	6.9 kA/1s
660365	**PATL-MCL-4/3525**	9.0 kA/1s
660370	**PATL-MCL-4/5035**	12.0 kA/1s
660375	**PATL-MCL-4/7050**	19.0 kA/1s

IEC 61230

Medium and high voltage overhead lines - Automatic clamps

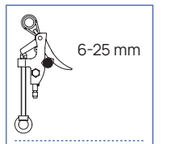


30905 PATL-PCA25-3
3 clamps

Earthing and short-circuit equipment for overhead lines.
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The PCA-25 clamp is fixed on bare conductors by pressure and can be removed by an operation hook. The three clamps can be placed at the same time thanks to the dispenser head facilitating operator's work.
The new PCA-25 clamp grants an easy and secure installation.

According to IEC 61230 standard.





PCA-25
Clamp



PP-3U
Clamp dispenser

Composed of:

- 3 PCA-25 aluminium alloy clamps with automatic activation fastening and final mechanical fixing for cylindrical conductors with diameter between 6 and 25 mm.
- 1 clamp dispenser head with recovery hook.
- 2 copper cables with PVC insulation of 16/25/35 mm² section (depending on model) and 2.5 m long.
- 1 copper cable with PVC insulation of 16/16/25 mm² section (depending on model) and 15 m long.
- 1 metallic spool to store the 15 m of earthing cable.
- 1 telescopic pole (1.10 m folded and 2 m extended).
- 1 earthing rod.
- 1 plastic case to store and transport the equipment (Optional with wheels).
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC between phases
660250	**PATL-PCA25-3/1616**	4.0 kA/1s
660260	**PATL-PCA25-3/2516**	6.9 kA/1s
660270	**PATL-PCA25-3/3525**	9.0 kA/1s

IEC 61230

* Depending on availability, the colour of the cover may vary.

EARTHING DEVICES

Medium and high voltage overhead lines - Automatic clamps

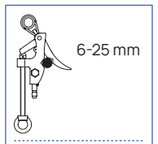


30905 PATL-PCA25-4
4 clamps

Earthing and short-circuit equipment for overhead lines.
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The PCA-25 clamp is fixed on bare conductors by pressure and can be removed by an operation hook. The three clamps can be placed at the same time thanks to the dispenser head facilitating operator's work.
The new PCA-25 clamp grants an easy and secure installation.

According to IEC 61230 standard.





PCA-25
Clamp



PP-4U
Clamp dispenser

Composed of:

- 4 PCA-25 aluminium alloy clamps with automatic activation fastening and final mechanical fixing for cylindrical conductors with diameter between 6 and 25 mm.
- 1 clamp dispenser head with recovery hook.
- 3 copper cables with PVC insulation of 16/25/35 mm2 section (depending on model) and 2.5 m long.
- 1 copper cable with PVC insulation of 16/16/25 mm2 section (depending on model) and 15 m long.
- 1 metallic spool to store the 15 m of earthing cable.
- 1 telescopic pole (1.10 m folded and 2 m extended).
- 1 earthing rod.
- 1 plastic case to store and transport the equipment (Optional with wheels).
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC between phases
660280	**PATL-PCA25-4/1616**	4.0 kA/1s
660281	**PATL-PCA25-4/2516**	6.9 kA/1s
660282	**PATL-PCA25-4/3525**	9.0 kA/1s

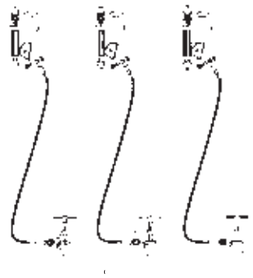
IEC 61230

* Depending on availability, the colour of the cover may vary.

30905 PATL-TML

Phase earthing and short-circuit equipment for overhead lines.
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

According to IEC 61230 standard.





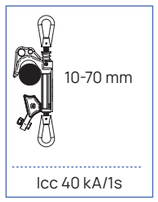


Cod. 630116
Operating hook.
Not included in the equipment.

Composed of:

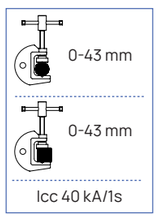
- 3 TML aluminium alloy clamps with screw tighten for cylindrical conductors with diameter between 10 and 70 mm.
- 3 copper cables with PVC insulation. Section and length depending on model.
- 3 TT-50 milling earthing lathe.
- 3 nylon bags to store and transport the equipment.





TML
Clamp





TT-50
Earthing lathe

Code	Ref.	Cable section (mm²)	Length (m)	Short circuit current Max. ICC
670176	PATL-TML/05006	50	6	12 kA/1s
670177	PATL-TML/05007		7	
670178	PATL-TML/05008		8	
670179	PATL-TML/05009		9	
670180	PATL-TML/05010		10	
670181	PATL-TML/05011		11	
670186	PATL-TML/07006	70	6	19 kA/1s
670187	PATL-TML/07007		7	
670188	PATL-TML/07008		8	
670189	PATL-TML/07009		9	
670190	PATL-TML/07010		10	
670191	PATL-TML/07011		11	
670196	PATL-TML/09506	95	6	25 kA/1s
670197	PATL-TML/09507		7	
670198	PATL-TML/09508		8	
670199	PATL-TML/09509		9	
670200	PATL-TML/09510		10	
670206	PATL-TML/12006	120	6	30 kA/1s
670207	PATL-TML/12007		7	
670208	PATL-TML/12008		8	
670209	PATL-TML/12009		9	
670210	PATL-TML/12010		10	
670216	PATL-TML/15006	150	6	40 kA/1s
670217	PATL-TML/15007		7	
670218	PATL-TML/15008		8	
670219	PATL-TML/15009		9	
670220	PATL-TML/15010		10	

IEC 61230

* Depending on availability, the colour of the bag may vary.

EARTHING DEVICES

Medium and high voltage overhead lines

30905 PATL-PA40

Phase earthing and short-circuit equipment for overhead lines.
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

According to IEC 61230 standard.

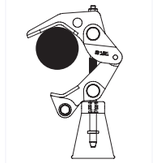




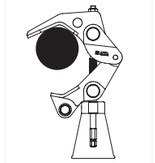
Composed of:

- 3 PA40-B (bayonet) aluminium alloy clamps with screw tighten for cylindrical conductors with diameter between 36 and 130 mm.
- 3 copper cables with PVC insulation. Section and length depending on model.
- 3 TT-50 milling earthing lathe.
- 3 nylon bags to store and transport the equipment.

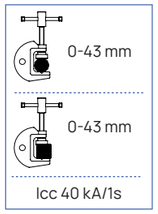




PA40
Clamp
with bayonet or
hexagonal shaft option







TT-50
Earthing lathe

Code	Ref.	Cable section (mm²)	Length (m)	Short circuit current Max. ICC
674176	PATL-PA40/05006	50	6	12 kA/1s
674177	PATL-PA40/05007		7	
674178	PATL-PA40/05008		8	
674179	PATL-PA40/05009		9	
674180	PATL-PA40/05010		10	
674186	PATL-PA40/07006	70	6	19 kA/1s
674187	PATL-PA40/07007		7	
674188	PATL-PA40/07008		8	
674189	PATL-PA40/07009		9	
674190	PATL-PA40/07010		10	
674196	PATL-PA40/09506	95	6	25 kA/1s
674197	PATL-PA40/09507		7	
674198	PATL-PA40/09508		8	
674199	PATL-PA40/09509		9	
674200	PATL-PA40/09510		10	
674206	PATL-PA40/12006	120	6	30 kA/1s
674207	PATL-PA40/12007		7	
674208	PATL-PA40/12008		8	
674209	PATL-PA40/12009		9	
674210	PATL-PA40/12010		10	
674216	PATL-PA40/15006	150	6	40 kA/1s
674217	PATL-PA40/15007		7	
674218	PATL-PA40/15008		8	
674219	PATL-PA40/15009		9	
674220	PATL-PA40/15010		10	

IEC 61230

* Depending on availability, the colour of the bag may vary.

Medium and high voltage overhead lines

30905 PATL-PAV

Phase earthing and short-circuit equipment for overhead lines.
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

According to IEC 61230 standard.





Composed of:

- 3 PAV aluminium alloy clamps with screw tighten for cylindrical conductors with diameter between 12 and 40 mm.
- 3 copper cables with PVC insulation. Section and length depending on model.
- 3 TT-50 milling earthing lathe.
- 3 nylon bags to store and transport the equipment.



PAV
Clamp



Ø 12-40 mm

Icc 40 kA/1s



TT-50
Earthing lathe



0-43 mm



0-43 mm

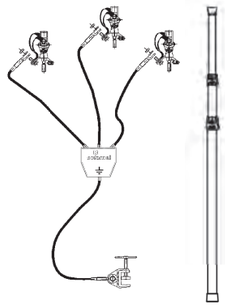
Icc 40 kA/1s

Code	Ref.	Cable section (mm²)	Length (m)	Short circuit current Max. ICC
673101	PATL-PAV/05006		6	
673102	PATL-PAV/05007		7	
673103	PATL-PAV/05008	50	8	12 kA/1s
673104	PATL-PAV/05009		9	
673105	PATL-PAV/05010		10	
673106	PATL-PAV/07006		6	
673107	PATL-PAV/07007		7	
673108	PATL-PAV/07008	70	8	19 kA/1s
673109	PATL-PAV/07009		9	
673110	PATL-PAV/07010		10	
673111	PATL-PAV/09506		6	
673112	PATL-PAV/09507		7	
673113	PATL-PAV/09508	95	8	25 kA/1s
673114	PATL-PAV/09509		9	
673115	PATL-PAV/09510		10	
673116	PATL-PAV/12006		6	
673117	PATL-PAV/12007		7	
673118	PATL-PAV/12008	120	8	30 kA/1s
673119	PATL-PAV/12009		9	
673120	PATL-PAV/12010		10	

IEC 61230

* Depending on availability, the colour of the bag may vary.

Medium and high voltage substations - Steerable clamps



30906 PATC-5014H

Earthing and short-circuit equipment for voltage substations.

The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The 5014H clamp is perfect for difficult access areas. The clamp can be adjusted depending on the required inclination thanks to its multi-directional head system.

According to IEC 61230 standard.





5014H
Clamp



5-25 mm

Icc 12 kA/1s



TT-38A
Earthing lathe



5-38 mm



0-38 mm

Icc 12 kA/1s

Composed of:

- 3 5014H brass steerable clamps with screw tighten and Hexagonal-12 fixing for cylindrical conductors with diameter between 5 and 25 mm.
- 3 copper cables with PVC insulation of 25/35/50 mm2 section (depending on model) and 0.75 m long.
- 1 copper cable with PVC insulation of 25/35/50 mm2 section (depending on model) and 2 m long.
- 1 insulated trifurcating connector.
- 1 TT-38A milling earthing lathe.
- 1 1.5 m telescopic pole with three sections.
- 1 plastic case to store and transport the equipment (Optional with wheels).

Code	Ref.	Short circuit current Max. ICC
665250	PATC-5014H/2525	6.9 kA/1s
665255	PATC-5014H/3535	9.0 kA/1s
665260	PATC-5014H/5050	12.0 kA/1s

IEC 61230

Medium and high voltage substations - Bus-bar clamps



30906 PATC-PP15

Earthing and short-circuit equipment for substations.

The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The PP-15 clamp is suitable for installations with flat bars in horitzontal or vertical position.

According to IEC 61230 standard.





8-14 mm

14x54 mm

Icc 19 kA/1s

PP-15
Clamp



5-38 mm

0-38 mm

Icc 12 kA/1s

TT-38A
Earthing lathe

Composed of:

- 3 PP15 aluminium alloy clamps with bayonet fixing for cylindrical conductors with diameter between 6 and 15 mm and flat bars up to 15 x 55 mm.
- 3 copper cables with PVC insulation of 25/35/50 mm2 section (depending on model) and 0.75 m long.
- 1 copper cable with PVC insulation of 25/35/50 mm2 section (depending on model) and 2 m long.
- 1 insulated trifurcating connector.
- 1 TT-38A milling earthing lathe.
- 1 1.5 m telescopic pole with three sections.
- 1 plastic case to store and transport the equipment (Optional with wheels).

Code	Ref.	Short circuit current Max. ICC
665270	**PATC-PP15/2525**	6.9 kA/1s
665275	**PATC-PP15/3535**	9.0 kA/1s
665280	**PATC-PP15/5050**	12.0 kA/1s

IEC 61230

Medium and high voltage substations - Screw clamps



30906 PATC-MPU

Earthing and short-circuit equipment for substations.

The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MPU clamp is fixed on bare cylindrical conductors, flat bars, bending bus-bars or fixing points by screw tightening.

According to IEC 61230 standard.





4-30 mm

Max. 45 mm

Max. 45 mm

20-25 mm

Icc 12 kA/1s

MPU
Clamp



5-38 mm

0-38 mm

Icc 12 kA/1s

TT-38A
Earthing lathe

Composed of:

- 3 MPU aluminium alloy clamps with screw tighten and Bayonet (MPUB) or Hexagonal-12 (MPU/H) fixing for cylindrical conductors with diameter between 4 and 30 mm, flat bars max. 45 mm, bending bus-bars max. 45 mm and fixing points between 20 and 25 mm.
- 3 copper cables with PVC insulation of 25/35/50 mm2 section (depending on model) and 0.75 m long.
- 1 copper cable with PVC insulation of 25/35/50 mm2 section (depending on model) and 2 m long.
- 1 insulated trifurcating connector.
- 1 TT-38A milling earthing lathe.
- 1 1.5 m telescopic pole with three sections.
- 1 plastic case to store and transport the equipment (Optional with wheels).

Code	Ref.	Short circuit current Max. ICC
665220	**PATC-MPUB/2525**	6.9 kA/1s
665225	**PATC-MPUB/3535**	9.0 kA/1s
665230	**PATC-MPUB/5050**	12.0 kA/1s
665235	**PATC-MPUH/2525**	6.9 kA/1s
665240	**PATC-MPUH/3535**	9.0 kA/1s
665245	**PATC-MPUH/5050**	12.0 kA/1s

IEC 61230

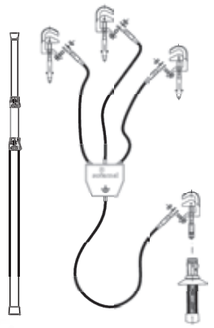
30906 PATCPF-MPU

Earthing and short-circuit equipment for substations.

The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MPU clamp is fixed on bare cylindrical conductors, flat bars, bending busbars or fixing points by screw tightening.

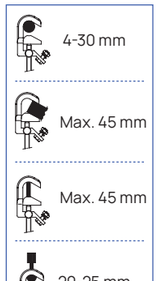
According to IEC 61230 standard.







MPU
Clamp





EMP
Insulating grip

Composed of:

- 3 MPU aluminium alloy clamps with screw tighten and Bayonet (MPU / B).
- For cylindrical conductors with a diameter between 4 and 30 mm; plate up to 45 mm and fixed points from 20 to 25 mm.
- 1 clamp MPU/H.
- 3 copper cables with PVC insulation of 25/35/50 mm² section (depending on model) and 0.75 m long.
- 1 copper cable with PVC insulation of 25/35/50 mm² section (depending on model) and 2 m long.
- 1 insulated trifurcating connector.
- 1 1.5 m telescopic pole with three sections.
- 1 insulating grip for the earthing clamp.
- 1 plastic case to store and transport the equipment (Optional with wheels).

Code	Ref.	Short circuit current Max. ICC
665310	PATCPF-MPU/2525	6.9 kA/1s
665315	PATCPF-MPU/3535	9.0 kA/1s
665320	PATCPF-MPU/5050	12.0 kA/1s

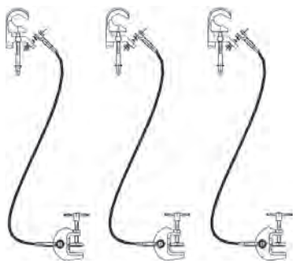
IEC 61230

30906 PAT-MPL

Phase earthing and short-circuit equipment for substations.
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

According to IEC 61230 standard





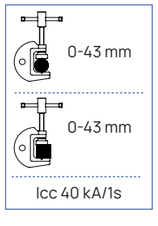


MPL
Clamp





TT-50
Earthing lathe



Composed of:

- 3 MPL aluminium alloy clamps with screw tighten for cylindrical conductors with diameter between 5 and 45 mm and flat bars.
- 3 copper cables with PVC insulation. Section and length depending on model.
- 3 TT-50 milling earthing lathe.
- 3 nylon bags to store and transport the equipment.

Code	Ref.	Cable section (mm²)	Length (m)	Short circuit current Max. ICC
680176	PAT-MPL/05006	50	6	12 kA/1s
680177	PAT-MPL/05007		7	
680178	PAT-MPL/05008		8	
680179	PAT-MPL/05009		9	
680180	PAT-MPL/05010		10	
680186	PAT-MPL/07006	70	6	19 kA/1s
680187	PAT-MPL/07007		7	
680188	PAT-MPL/07008		8	
680189	PAT-MPL/07009		9	
680190	PAT-MPL/07010		10	
680196	PAT-MPL/09506	95	6	25 kA/1s
680197	PAT-MPL/09507		7	
680198	PAT-MPL/09508		8	
680199	PAT-MPL/09509		9	
680200	PAT-MPL/09510		10	
680206	PAT-MPL/12006	120	6	30 kA/1s
680207	PAT-MPL/12007		7	
680208	PAT-MPL/12008		8	
680209	PAT-MPL/12009		9	
680210	PAT-MPL/12010		10	

IEC 61230

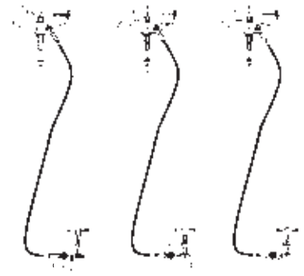
* Depending on availability, the colour of the bag may vary.

30906 PATC-TMC

Phase earthing and short-circuit equipment for substations.
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

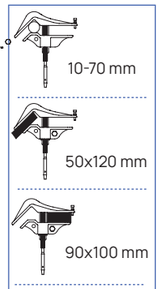
According to IEC 61230 standard.





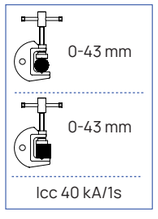


TMC
Clamp





TT-50
Earthing lathe



Composed of:

- 3 TMC aluminium alloy clamps with screw tighten for cylindrical conductors with diameter between 10 and 70 mm, flat bars max. 90 x 100 mm and bending bus-bars max. 50 x 120 mm.
- 3 copper cables with PVC insulation. Section and length depending on model.
- 3 TT-50 milling earthing lathe.
- 3 nylon bags to store and transport the equipment.

Code	Ref.	Cable section (mm²)	Length (m)	Short circuit current Max. ICC
675176	PATC-TMC/05006	50	6	12 kA/1s
675177	PATC-TMC/05007		7	
675178	PATC-TMC/05008		8	
675179	PATC-TMC/05009		9	
675180	PATC-TMC/05010		10	
675186	PATC-TMC/07006	70	6	19 kA/1s
675187	PATC-TMC/07007		7	
675188	PATC-TMC/07008		8	
675189	PATC-TMC/07009		9	
675190	PATC-TMC/07010		10	
675196	PATC-TMC/09506	95	6	25 kA/1s
675197	PATC-TMC/09507		7	
675198	PATC-TMC/09508		8	
675199	PATC-TMC/09509		9	
675200	PATC-TMC/09510		10	
675206	PATC-TMC/12006	120	6	30 kA/1s
675207	PATC-TMC/12007		7	
675208	PATC-TMC/12008		8	
675209	PATC-TMC/12009		9	
675210	PATC-TMC/12010		10	

IEC 61230

* Depending on availability, the colour of the bag may vary.

EARTHING DEVICES

Medium and high voltage substations



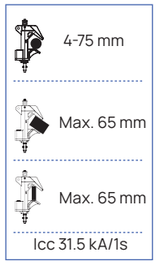
30906 PATL-MPS/9510

Earthing and short-circuiting equipment for overhead lines and transformer stations.

The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations with the control of the manipulation of all the components of the equipment through independent keys, thus preventing third parties from manipulating safety.

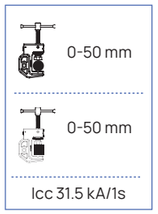


MPS
Clamp





TTS
Earthing lathe



The clamps can be fixed to cylindrical conductors, flat bars, or flexible distribution bars or fixing points by means of screw tightening. Short-circuit current 31.5 kA (Cable 120mm2).

Sequence:
- Tamper-proof clamp locking.
- Tamper-proof screw locking.
- Repeat until all three phases are secured and locked.

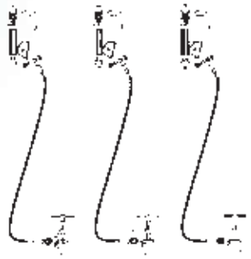
Composed of:
- 3 MPS aluminum alloy clamps with screw tighten for cylindrical conductors with a diameter between 4 and 75 mm; flat bars of max. 80 mm and bars flexible distribution of max. 80 mm
- 3 copper cables with PVC insulation of 95 mm2 section and 10 m length.
- 3 earthing lathes with key lock.
- 3 independently coded keys.
- 3 bags to store and transport the equipment.

Code	Ref.	Short circuit current Max. ICC
676010	PATL-MPS/9510	25 kA/1s

IEC 61230

* Depending on availability, the colour of the bag may vary.

High voltage overhead lines - Aluminium cable



30907 PATL-AL-3/TML

Phase earthing and short-circuit equipment for high voltage overhead lines. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

According to IEC 61138 standard.



Cod. 630116
Operating hook.
Not included in the equipment.



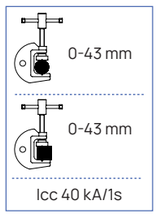


TML
Clamp





TT-50
Earthing lathe



Composed of:

- 3 TML aluminium alloy clamps with screw tighten for cylindrical conductors with diameter between 10 and 70 mm.
- 3 aluminium cables with PVC insulation. Section and length depending on model.
- 3 TT-50 milling earthing lathe.
- 3 nylon bags to store and transport the equipment.

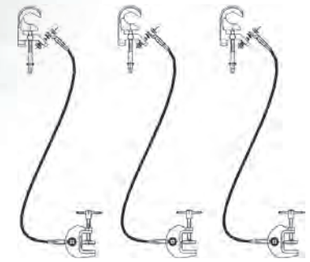
Code	Ref.	Cable section (mm²)	Length (m)	Short circuit current Max. ICC
680120	PATL-AL-3/TML/12007	120	7	17.5 kA/1s* – 24 kA/0.5s*
680130	PATL-AL-3/TML/12008		8	
680140	PATL-AL-3/TML/12010		10	

* Theoretical rated current.

IEC 61138

* Depending on availability, the colour of the bag may vary.

High voltage versatile - Aluminium cable



30908 PAT-AL-3/MPL

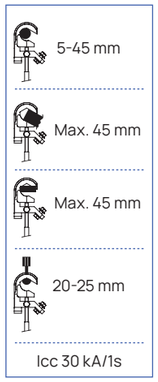
Earthing and short-circuiting equipment for overhead lines and high-voltage substations. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

According to IEC 61138 standard.



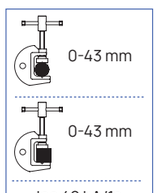


MPL
Clamp





TT-50
Earthing lathe



Composed of:

- 3 MPL aluminium alloy clamps with screw tighten for cylindrical conductors with diameter between 6 and 45 mm.
- 3 aluminium cables with PVC insulation. Section and length depending on model.
- 3 TT-50 milling earthing lathe.
- 3 nylon bags to store and transport the equipment.

Code	Ref.	Cable section (mm²)	Length (m)	Short circuit current Max. ICC
680150	PAT-AL-3/MPL/12007	120	7	17.5 kA/1s* – 24 kA/0.5s*
680160	PAT-AL-3/MPL/12008		8	
680170	PAT-AL-3/MPL/12010		10	

* Theoretical rated current.

IEC 61138

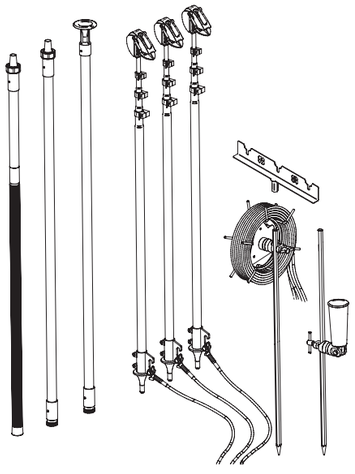
* Depending on availability, the colour of the bag may vary.

30909 ERLAIN

Earthing equipment for overhead lines, easy to use for only one operator that besides facilitates the verification of absence of tension with a voltage detector (not included).

Thanks to the operation sections of the metal pole, it has multiple length adjustments.

According to IEC 61230 standard.







Composed of:

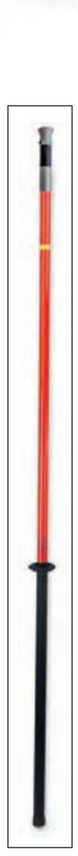
- 3 telescopic metal poles composed of 3 parts with self-locking fixed contact clamp for conductors with diameter between 3 and 22 mm.
- 1 insulating fiberglass pole + Eproxy resin and polyurethane foam filled with 3 sections of 1.72 + 1.65 + 1.63 m; certified by the IEC 60855 standard.
- Total length: 5 m (has the option of using it without the middle section with a remaining total length of 3.4 m).
- 1 poles holder.
- 1 coil with 3 copper cables of 35 mm² section and 10 m length.
- 2 galvanized steel earthing rod with hexagonal section of 1 m.
- 1 insulating pole support.
- 1 carrying bag.

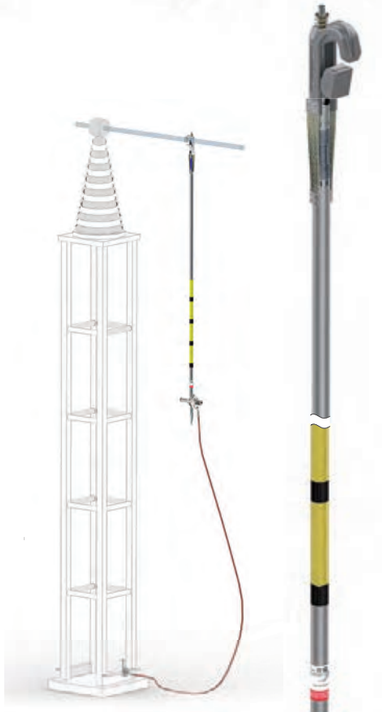
Note: the maximum tightening torque for the reel is 15Nm.

Code	Ref.	Extended length metal pole	Extended length metal pole	Folded length metal pole	Short circuit current Max. ICC
660400	**ERLAIN-3/11**	6.00 m	2.20 m	3	8 kA/1s
660405	**ERLAIN-4/10**	5.10 m	1.50 m	4	8 kA/1s

EARTHING DEVICES

Potential drop

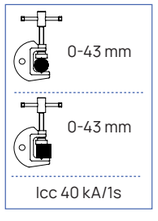




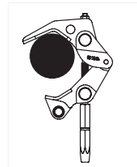
◄ **Optional**
3 m potential drop pole
model BSC-132/BP (code 672210)

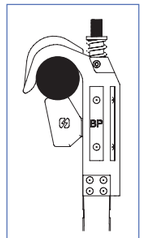


TT-50
Earth lathe



Potential drop equipment
for high-altitude connections





30909 PATC-BP

Equipment with intermediate BPGA potential drop clamp, with 3 m aluminium tube, allowing the earthing point to be transferred to facilitate manoeuvring.

According to IEC 61230 standard.



BPGA
Connection pole



PA40ABP
High voltage clamp



TT-50
Earthing lathe

Composed of:

- 1 BPGA potential drop clamp.
- 1 PA40/BP aluminium alloy clamp, screw tightening.
- For cylindrical conductors with diameters of between 10 and 60 mm.
- 1 copper cable with PVC insulation of 120 mm2 section and length of 6 m.
- 1 TT-50 milling earthing lathe.
- 1 nylon bag to store and transport the
- equipment.



Code	Ref.	Cable section (mm²)	Length (m)	Short circuit current ICC Max.	Capacity Closing
672200	**PATC-BP**	120	6	31,5 kA/1s	Ø 10-60 mm

IEC 61230

* Depending on availability, the colour of the bag may vary.



30910 PATF-PC

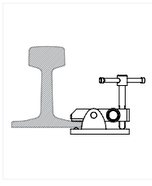
Integrated earthing equipment for railway system catenaries and double catenaries. With one PC clamp to enable earthing of lines for repair work.

According to IEC 61230 standard.





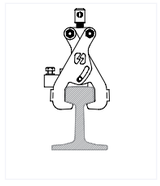
TTR
Earth lathe



Icc 19 kA/1s



TTSR
Earth lathe



Icc 19 kA/1s



PC
Clamp



Max. 35 mm



Max. 35 mm

Icc 19 kA/1s

Composed of:

- 1 PC aluminium alloy clamps with screw tighten for cylindrical conductors with diameter 35 max.
- 1 copper cables with PVC insulation of 50 mm2 section and 7 m of length.
- 1 TTR or TTSR milling earthing lathe.
- 1 nylon bags to store and transport the equipment.

Code	Ref.	Short circuit current ICC Max.
666120	PATF-PC/05007-TTR	
666130	PATF-PC/05007-TTSR	12 kA/1s

* Depending on availability, the colour of the bag may vary.

EARTHING DEVICES

Equipment for the railway sector



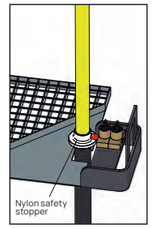
30910 PATF-PDC

Integrated earthing equipment for railway system catenaries, double catenaries and rigid catenary. With one PDC clamp to enable earthing of lines for repair work.

According to IEC 61230 standard.

Optional ▶
Catenary pole with handle to be used next to the rail. (cod. 615019)



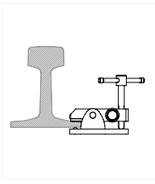


Example lockdown with key.





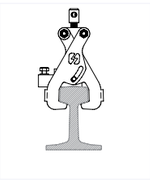
TTR
Earth lathe



Icc 19 kA/1s



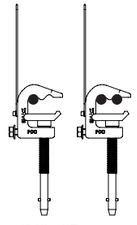
TTSR
Earth lathe



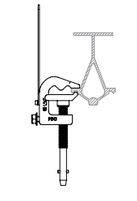
Icc 19 kA/1s



PDC
Clamp



Ø 12 - 27 mm



Icc 19 kA/1s

Composed of:

- 1 PDC aluminium alloy clamps with screw tighten and bayonet for cylindrical conductors with diameter between 12 and 27 mm.
- 1 copper cables with PVC insulation of 50 mm² section and 7 m of length.
- 1 TTR or TTRS milling earthing lathe.
- 1 nylon bags to store and transport the equipment

Code	Ref.	Short circuit current ICC Max.
666140	PATF-PDC/05007-TTR	
666150	PATF-PDC/05007-TTSR	12 kA/1s

* Depending on availability, the colour of the bag may vary.

30910 PATF-PC-TTIR

Integrated earthing equipment for underground tramway rails. With one PC clamp to enable earthing of lines for repair work.

According to IEC 61230 standard.





PC
Clamp



Max. 35 mm



Max. 35 mm

Icc 19 kA/1s



TTIR
Earth lathe



Icc 19 kA/1s

Composed of:

- 1 PC aluminium alloy clamps with screw tighten for cylindrical conductors with diameter 35 max.
- 1 copper cables with PVC insulation of 50 mm2 section and 7 m of length.
- 1 TTIR milling earthing lathe.
- 1 nylon bags to store and transport the equipment.

Code	Ref.	Short circuit current ICC Max.
666110	**PATF-PC/05007-TTIR**	12 kA/1s

* Depending on availability, the colour of the bag may vary.

EARTHING DEVICES

Equipment for the railway sector

30910 PATF-PDC-TTIR

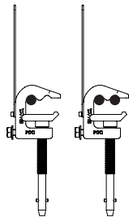
Integrated earthing equipment for underground tramway rails. With one PDC clamp to enable earthing of lines for repair work.

According to IEC 61230 standard.





PDC
Clamp



Ø 12 - 27 mm



Icc 19 kA/1s



TTIR
Earth lathe



Icc 19 kA/1s

Composed of:

- 1 PDC aluminium alloy clamps with screw tighten and bayonet for cylindrical conductors with diameter between 12 and 27 mm.
- 1 copper cables with PVC insulation of (50/70) mm2 section and 7 m of length.
- 1 TTIR milling earthing lathe.
- 1 nylon bags to store and transport the equipment

Code	Ref.	Short circuit current ICC Max.
666160	**PATF-PDC/05007-TTIR**	12 kA/1s
666161	**PATF-PDC/07007-TTIR**	19 kA/1s

* Depending on availability, the colour of the bag may vary.

Earthing and short-circuit equipment for cars



F-600
Insulating clamp

30901 PAT-2/F-600

Earthing and short-circuit equipment for cars.
The main aim of installing this item is to protect workers from induced voltage and/or static electricity during maintenance and repair work on electric and hybrid cars.

Composed of:

- 2 F-600 insulated clamps.
- 1 16 mm² copper cable with PVC insulating sheath (length depending on model).
- 1 bag for transporting and storing the equipment.

Code	Ref.	Length	Maximum working current
657010	PAT-2/F-600/L/01606	6 m	600 A
657020	PAT-2/F-600/L/01607	7 m	
657030	PAT-2/F-600/L/01608	8 m	

* Depending on availability, the colour of the bag may vary.

Earthing and short-circuit equipment for trucks



TT-38L
Earth lathe

30901 PAT-TT38L/03515

Earthing and short-circuit equipment for trucks.
The main aim of installing this item is to protect workers from induced voltage and/or static electricity during maintenance and repair work on electric and hybrid cars.

Consists of:

- 2 T-38L milling earthing lathe.
- 1 15 m copper cable with PVC insulating sheath.
- 1 bag for transporting and storing the equipment.

Code	Ref.	Length	Short circuit current Max. ICC
657040	PAT-TT38L/03515	15 m	9 kA/1s

* Depending on availability, the colour of the bag may vary.

Short circuit cable section - Heating curves

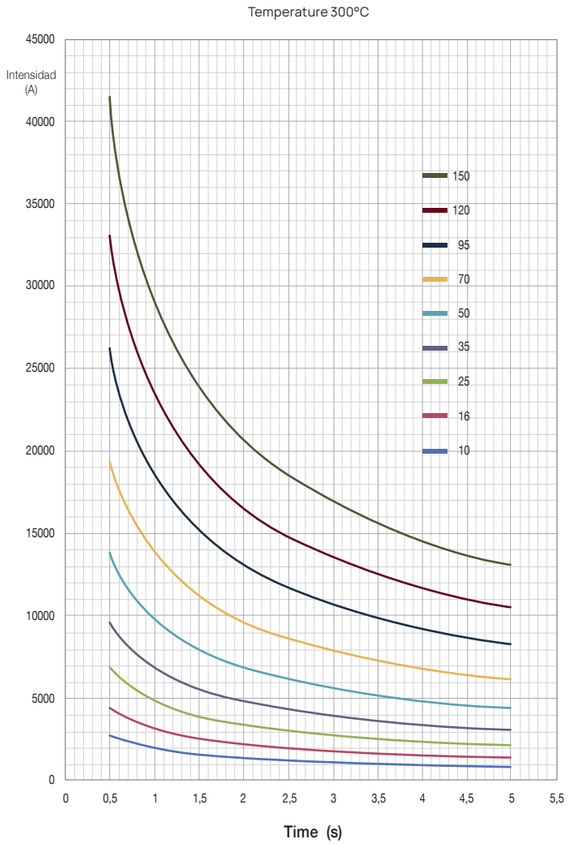


Fig. 1 - Melting point curve for copper cable.

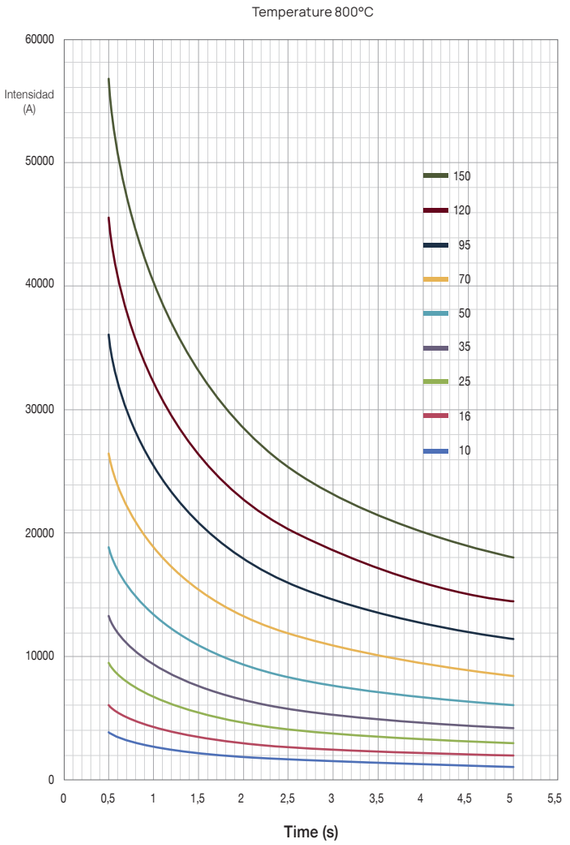


Fig. 2 - Heating curve (at 300°C) for copper cable.

Example: Choosing cable for a short circuit rating of 15 kA/1 sec.
Beginning with the curve in fig. 1, if a 50 mm² cable is used for more than 1 sec, cable burn-out will occur. If this is not permissible, a 70 mm² cable must be selected.

Fig. 2 shows if a 70 mm² cable conducts 15 kA for 1 sec, its temperature will rise to more than 300°C. Any cable which heats to 300°C will not be entirely destroyed, but should never be reused.

Lifting accessory

Safer manoeuvres and lifting with less effort



30810 SERPAT
Lifting accessory

The SERPAT lifting equipment simplifies the installation of any earthing equipment by significantly reducing the effort required for each manoeuvre, while ensuring greater safety.

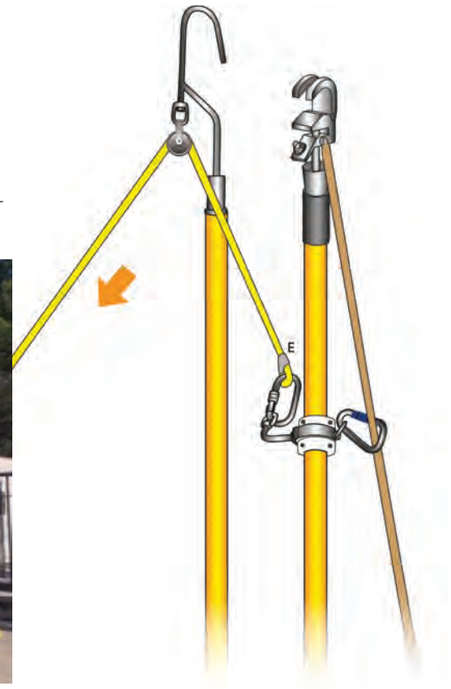
Includes:
- 1 Ring
- 2 Rings
- 1 Steel carabiner (ring)
- 1 Aluminium carabiner (ring 2)
- Clamps
- 1 Hook
- 1 Pulley
- 1 Rope
- 1 Clamp
- 1 Pulley carabiner

Code	Ref.
630305	SERPAT



It is supplied in a plastic box for easy transportation and storage of the equipment.





EARTHING DEVICES



Earthing and short circuit cable information

Extra flexible stranded copper cable coated with transparent PVC manufactured according to IEC-61138 standard (cables for portable earthing and short circuit complying with IEC 61230 standard).
Test voltage: 1000V for 1 hour A.C.
Temperature: -30°C to +70°C

Extra flexible aluminium cable, class 6, coated with transparent PVC (EN 50363-4-2 standard). Manufactured according to IEC 60228, EN 61138, and IEC 61230 standards.

Copper

Code	Nominal cross section (mm²)	Icc (kA)	Weight (kg/m)	Ø Ext. (mm)	
				Min.	Max.
M-03.016.00	16	6 kA/0,5s - 4.3 kA/1s	0.18	7.10	8.60
M-03.025.00	25	9.4 kA/0,5s - 6.9 kA/1s	0.26	8.40	10.60
M-03.035.00	35	13.2 kA/0.5s - 9.4 kA/1s	0.36	9.70	11.70
M-03.050.00	50	18.9 kA/0.5s - 13.4 kA/1s	0.52	11.70	14.20
M-03.070.00	70	26.4 kA/0.5s - 19 kA/1s	0.71	13.40	16.20
M-03.095.00	95	35.9 kA/0.5s - 25.5 kA/1s	0.95	15.50	18.70
M-03.120.00	120	45.4 kA/0.5s - 32.1 kA/1s	1.17	17.10	20.60
M-03.150.00	150	56.7 kA/0.5s - 40.2 kA/1s	1.45	18.60	22.50

Aluminium

Code	Nominal cross section (mm²)	Icc (kA)	Weight (kg/m)	Ø Ext. (mm)	
				Min.	Max.
M-04.035.00	35	7 kA/0.5s - 5 kA/1s	0.154	9.70	11.70
M-04.050.00	50	10 kA/0.5s - 7 kA/1s	0.228	11.70	14.20
M-04.070.00	70	14 kA/0.5s - 10 kA/1s	0.307	13.40	16.20
M-04.095.00	95	19 kA/0.5s - 13.5 kA/1s	0.412	15.50	18.70
M-04.120.00	120	24 kA/0.5s - 17.5 kA/1s	0.502	17.10	20.60
M-04.150.00	150	30 kA/0.5s - 21.4 kA/1s	0.623	18.60	25.50

Equipment accessories



30911 SP-PAT
Wall earthing equipment holder

Metal holder and lacquered finish.

Code	Ref.
671179	SP-PAT

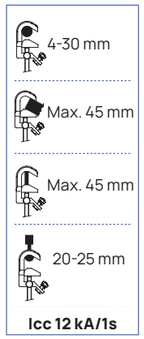
30911 Low voltage clamps

MPUE

Code 671112

Dimensions: 335 x 81 x 52 mm
Weight: 0.6 kg



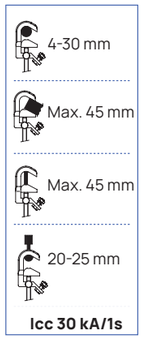


MPUL

Code 671113

Dimensions: 335 x 81 x 52 mm
Weight: 1.2 kg



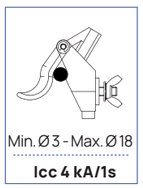


PEBT

Code 658115

Dimensions: 815 x 58 x 40 mm
Weight: 0.35 kg





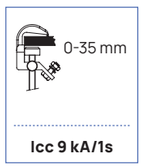


MPUBT

Code 659001P

Dimensions: 160 x 82 x 40 mm
Weight: 0.36 kg





EARTHING DEVICES

Equipment accessories

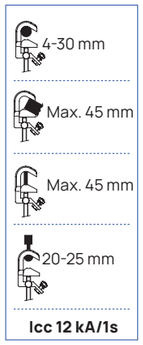
30911 Medium voltage clamps

MPUH

Code 671110

Dimensions: 202 x 81 x 40 mm
Weight: 0.48 kg



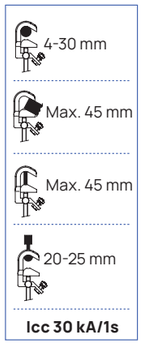


MPUH-L

Code 671117

Dimensions: 202 x 81 x 40 mm
Weight: 1.16 kg



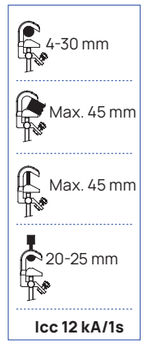


MPUB

Code 671115

Dimensions: 240 x 81 x 40 mm
Weight: 0.53 kg



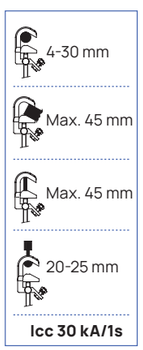


MPUB-L

Code 671118

Dimensions: 240 x 81 x 40 mm
Weight: 1.65 kg



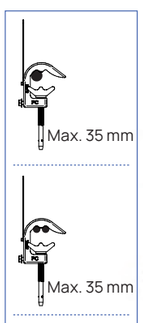


PC

Code 666005

Dimensions: 440 x 157 x 54 mm
Weight: 1.3 kg



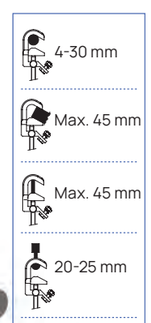


MPUP

Code 671116

Dimensions: 240 x 81 x 156 mm
Weight: 0.7 kg





30911 Medium voltage clamps

MPUP-L

Code 671119

Dimensions: 240 x 81 x 156 mm
Weight: 1.34 kg



4-30 mm
Max. 45 mm
Max. 45 mm
20-25 mm
Icc 30 kA/1s

PDC

Code 666010

Dimensions: 413 x 105 x 52 mm
Weight: 0.85 kg



Ø 12 - 27 mm
Icc 19 kA/1s

MCL

Code 671121

Dimensions: 182 x 128 x 68 mm
Weight: 0.67 kg



8-30 mm
Icc >20 kA/1s

5014H

Code 671100

Dimensions: 167 x 91 x 83 mm
Weight: 0.8 kg



5-25 mm
Icc 12 kA/1s

MC

Code 671120

Dimensions: 226 x 102 x 62 mm
Weight: 0.4 kg



3-20 mm
Icc 9 kA/1s

PCA-25

Code 671171

Dimensions: 276 x 123 x 74 mm
Weight: 0.81 kg



6-25 mm
Icc 19 kA/1s

PP15

Code 671166

Dimensions: 241 x 95 x 47 mm
Weight: 0.68 kg



8-14 mm
14x54 mm
Icc 19 kA/1s

EARTHING DEVICES

Equipment accessories

30911 High voltage clamps

MPL

Code 671172

Dimensions: 263 x 105 x 62 mm
Weight: 0.97 kg



4-45 mm
Max. 45 mm
Max. 45 mm
20-25 mm
Icc 30 kA/1s

MPLE

Code 671178

Dimensions: 263 x 110 x 62 mm
Weight: 1 kg



4-45 mm
Max. 45 mm
Max. 45 mm
20-25 mm
Icc 30 kA/1s

MPLP

Code 671173

Dimensions: 263 x 105 x 204 mm
Weight: 1.1 kg



4-45 mm
Max. 45 mm
Max. 45 mm
20-25 mm
Icc 30 kA/1s

PAV-48

Code 673100

Dimensions: 380 x 170 x 120 mm
Weight: 1.6 kg



Ø 12-40 mm
Icc 40 kA/1s

TML

Code 670100P

Dimensions: 428 x 133 x 53 mm
Weight: 1.56 kg



10-70 mm
Icc 40 kA/1s

TMC

Code 675100P

Dimensions: 273 x 248 x 45 mm
Weight: 1.18 kg



10-70 mm
50x120 mm
90x100 mm
Icc 30 kA/1s

30911 High voltage clamps

PA40A

Code 674100 - Bayonet
Code 674102 - Hexagonal

Dimensions: 331 x 206 x 80 mm
Weight: 1.7 kg





Ø 36 - 130 mm



Ø 36 - 130 mm

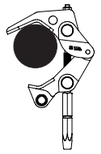
Icc 40 kA/1s

PA40ABP

Code 674105 - Hexagonal H22

Dimensions: 341 x 206 x 80 mm
Weight: 1.6 kg





Ø 36 - 130 mm

Icc 40 kA/1s



30911 Handles

EMB

Code 671106

Dimensions: 198 x Ø 52 mm
Weight: 0.3 kg



EMP

Code 659001E

Dimensions: 218 x Ø 52 mm
Weight: 0.25 kg

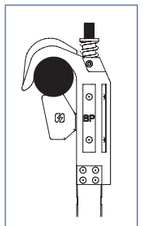


30911 Potential drop clamp

BPGA

Code 672205

Dimensions: 3262 x 141 x 298 mm
Weight: 7.8 kg



Ø 10-60 mm

Icc 31,5 kA/1s



30911 Earthing lathe

TT-38A

Code 671141

Dimensions: 158 x 92 x 35 mm
Weight: 0.48 kg





5-38 mm



0-38 mm

Icc 12 kA/1s

TT-38L

Code 671145

Dimensions: 158 x 92 x 35 mm
Weight: 0.93 kg





5-38 mm



0-38 mm

Icc 25 kA/1s

TT-50

Code 671152

Dimensions: 250 x 147 x 40 mm
Weight: 0.95 kg





0-43 mm



0-43 mm

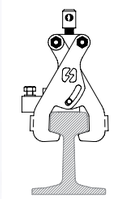
Icc 40 kA/1s

TTSR

Code 666015

Dimensions: 280 x 214 x 55 mm
Weight: 3.45 kg





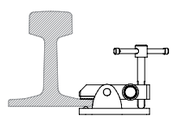
Icc 19 kA/1s

TTR

Code 671153

Dimensions: 115 x 117 x 60 mm
Weight: 1.1 kg





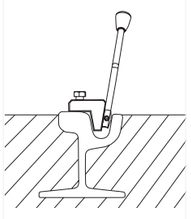
Icc 19 kA/1s

TTIR

Code 671154

Dimensions: 54 x 65 x 50 mm
Weight: 0.95 kg





Icc 19 kA/1s

30911 Earthing lathe

PEP

EQUIPOTENTIAL CLAMP FOR POST
Code P-671180

Dimensions: 420 x 202 x 70 mm
Weight: 4.5 kg



Max. Ø 400 mm



Min. Ø 90 mm



PEP-ECO

EQUIPOTENTIAL CLAMP FOR POST
Code P-671185

Dimensions: 325 x 200 x 60 mm
Weight: 3.7 kg



Max. Ø 400 mm



Min. Ø 90 mm



30911 Dispenser heads

PP-3

Code 671126



PP-4

Code 671127



PP-3U

Code 671128



PP-4U

Code 671129



PP-3 MCL

Code 671131



PP-4 MCL

Code 671132



PP-3U MCL

Code 671122



PP-4U MCL

Code 671123



PP-1U MCL

Code 630168



30911 Wheeled suitcase

SOFABOX

Code 620061

Dimensions: 855 x 577 x 400 mm





Ideal for transporting hydraulic kits used in low, medium, and high voltage tasks. It ensures easy and convenient mobility, providing a reliable solution for safely moving equipment to various job sites.



Foldable steel leg
Allows for horizontal storage of the suitcase.



Foldable handles
The suitcase has handles on the top and side to facilitate transport at all times.



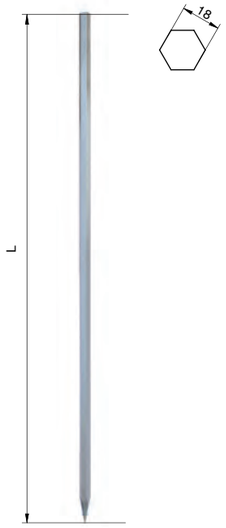
Durable wheels
The robust design of the wheels allows for comfortable movement even on difficult terrain.

30911 Earthing rod

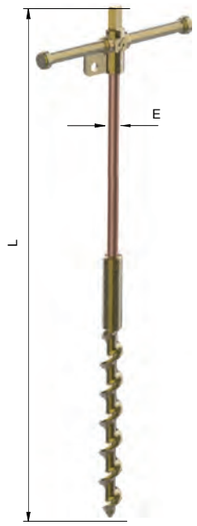
Hexagonal earthing rod

Code 667150

Dimensions: 1 m
Weight: 2.150 kg



Helical earthing rod



Code	Ref.	L	ØE	kg
P-671190	PTB14-1000	1000	14.6	2.7
P-671191	PTB14-1300	1300		2.85
P-671192	PTB14-1500	1500		3
P-671193	PTB18-1000	1000	18.2	3.2
P-671194	PTB18-1300	1300		3.55
P-671195	PTB18-1500	1500		3.86

Equipment accessories

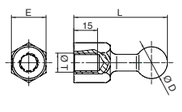
Fixed ball point

Used in electrical installations to connect and securely fasten the clamps of PAT equipment.
According to DIN 48088 part 1.
Material: 20 micron tinned brass and stainless hardware.

30912 Straigh fixed ball point - Female

INTERNAL THREAD



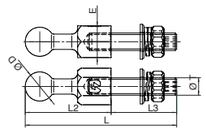


Code	Ref	ØD	ICC Max. kA/1s	E	L	ØT
P-665020	PFRH-20M12	20	12	SW22	59	M12
P-665022	PFRH-20M16					M16
P-665024	PFRH-20M12	25	25	SW27	69	M12
P-665026	PFRH-20M16					M16

30912 Straigh fixed ball point - Male

EXTERNAL THREAD



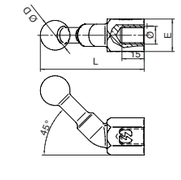


Code	Ref	ØD	ICC Max. kA/1s	E	L	L2	L3	ØT
P-665030	PFRM-20M12x35	20	12	SW22	94	59	35	M12
P-665032	PFRM-20M12x45				104		45	M12
P-665034	PFRM-20M16x35				94		35	M16
P-665036	PFRM-20M16x45				104		45	M16
P-665038	PFRM-25M12x35	25	25	SW27	104	69	35	M12
P-665040	PFRM-25M12x45				114		45	M12
P-665042	PFRM-25M16x35				104		35	M16
P-665044	PFRM-25M16x45				114		45	M16

30912 Fix ball point 45° - Female

INTERNAL THREAD



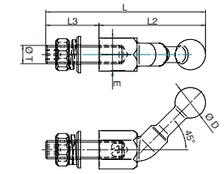


Code	Ref	ØD	ICC Max. kA/1s	E	L	ØT
P-665050	PF45H-20M12	20	12	SW22	70	M12
P-665052	PF45H-20M16					M16
P-665054	PF45H-25M12	25	25	SW27	82	M12
P-665056	PF45H-25M16					M16

30913 Fix ball point 45° - Male

EXTERNAL THREAD



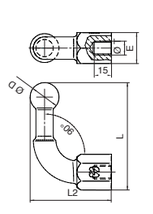


Code	Ref	ØD	ICC Max. kA/1s	E	L	L2	L3	ØT
P-665060	PF45M-20M12x35	20	12	SW22	105	70	35	M12
P-665062	PF45M-20M16x45				115		45	M16
P-665064	PF45M-25M12x45	25	25	SW27	127	82	45	M12
P-665066	PF45M-25M16x45							M16

30912 Fix ball point 90° - Female

INTERNAL THREAD



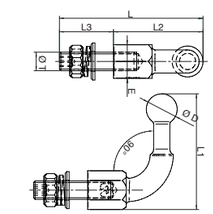


Code	Ref	ØD	ICC Max. kA/1s	E	L	L2	ØT
P-665070	PF90H-20M12	20	12	SW22	75	58	M12
P-665072	PF90H-20M16						M16
P-665074	PF90H-25M12	25	25	SW27	93	70	M12
P-665076	PF90H-25M16						M16

30913 Fix ball point 90° - Male

EXTERNAL THREAD





Code	Ref	ØD	ICC Max. kA/1s	E	L	L2	L3	ØT
P-665080	PF90M-20M12x35	20	12	SW22	93	58	35	M12
P-665082	PF90M-20M16x45				103		45	M16
P-665084	PF90M-25M12x45	25	25	SW27	115	70	45	M12
P-665086	PF90M-25M16x45							M16

Medium voltage detector - Indoor



CE

Analogic voltage detector
Medium Voltage - Optical

Voltage presence is indicated by LED lights.
Self-checking system by means of an incorporared piezoelectric generator.
It works with no battery.
Indoor use by insulating pole according to the rated voltage of the detector.
Connection to the pole by Universal head.
Supplied with a metallic box to store and transport the voltage detector.

Code	Ref.	Voltage ranges	Frequency
640200	VTO-5/36-U	from 5 to 36 kV	50 / 60 Hz
640205	VTO-5/66-U	from 5 to 66 kV	

CE



CE

Analogic voltage detector with pole
Medium Voltage - Optical

Voltage presence is indicated by LED lights.
Self-checking system by means of an incorporared piezoelectric generator.
It works with no battery.
Indoor use by insulating pole according to the rated voltage of the detector.
(included).
Connection to the pole by Universal head.
Supplied with a metallic box to store and transport the voltage detector.

Code	Ref.	Voltage ranges	Insulating pole length	Frequency
640210	VTO-5/36-P	from 5 to 36 kV	1.25 m	50 / 60 Hz
640215	VTO-5/66-P	from 5 to 66 kV	2 m	

CE



Medium voltage detector - Indoor



PEKE

Compact voltage detector with pole
Medium Voltage - Optical

Voltage presence is indicated by three red LED lights.
Self-checking system by means of an incorporated piezoelectric generator.
It works with no battery.
Indoor use through integrated insulating telescopic pole. (included)
Insulated pole according to RD 614/2001 standard.
Outdoor use in dry condition only.
Supplied with bag to transport the voltage detector that can be attached to the belt.

VOLTAGE RANGES
from 5 to 36 kV







31001 PEKE

Code	Ref.	Voltage ranges	Frequency	Length extended pole	Length folded pole
640104	PEKE-5/36	from 5 to 36 kV	50 / 60 Hz	125.5 cm (detector included)	44.3 cm (detector included)

CE



Medium voltage detector - Indoor / Outdoor

SPECTRA

Standard compact voltage detector with pole
Medium Voltage - Optical & Acoustic

Self-verification device by push button.
Operation with two AAA batteries.
Indoor use through integrated insulating telescopic pole.
Insulated pole according to RD 614/2001 standard. (included)
Outdoor use in dry condition only.
Work temperature range: -25ºC to 55ºC
Voltage presence indicator: By 2 led diode lamps and acoustic signal intermittent buzzer.
Supplied with a bag for the transportation of all set.

VOLTAGE RANGES
from 200 V to 5 kV
or from 50 V to 1 kV



Detector with the extended pole retracted.

31001 SPECTRA

Code	Ref.	Voltage ranges	Frequency	Length extended pole	Length folded pole
640175	**SPECTRA-200/5000**	from 200 V to 5 kV	50 / 60 Hz	125.5 cm (detector included)	44.3 cm (detector included)
640177	**SPECTRA-50/1000**	from 50 V to 1 kV			

CE







ACCESSORIES (INCLUDED)

- Universal pole adapter.
- Bag to transport the voltage detector with pole.



VTE

High resolution voltage detector with pole
Medium Voltage - Optical & Acoustic

Electronic voltage detector with micro controller and direct contact detection.New advanced technology acquisition that guarantees a perfect and safe indication even in conflicting electric field environments.

Voltage presence is indicated by high luminosity red LED and high acoustic pressure buzzer.
Voltage absence is indicated by high luminosity green LED.
Low battery is indicated by orange LED.
Self-checking system for its complete circuit by pressing test button.
Stops working when low battery.
Work temperature range: from -25ºC to +55ºC.
Self-ignition when voltage presence.
Auto turn-off into sleep mode after two minutes of voltage absence.
In this mode consumption is less than 1 µA.
Power supply: 9 V alkaline battery, type 6LR61 (included).
Indoor and outdoor use by appropriate insulating pole to the detector voltage range.
Connection to the pole by Universal head.
Supplied with carrying bag for pole and metallic box to store and transportthe voltage detector with battery included.

Manufactured according to IEC 61243:2003+A1:2009 and UNE-EN 61243-1:2006+A1:2011 standards (exept voltage range).

VOLTAGE RANGES
from 5 to 35 or 5 to 66 kV

31002 VTE-U

Code	Ref.	Voltage ranges	Frequency
641113	**VTE-5/36-U**	from 5 to 36 kV	50 / 60 Hz
641115	**VTE-5/66-U**	from 5 to 66 kV	

31002 VTE-P

Code	Ref.	Voltage ranges	Frequency	Insulating pole length
641103	**VTE-5/36-P**	from 5 to 36 kV	50 / 60 Hz	1.30 m
641105	**VTE-5/66-P**	from 5 to 66 kV		2 m

* Insulating pole included.



VOLTAGE DETECTORS

Medium voltage detector - Outdoor



VTE-25-U

AC voltage detector for fast speed train networks
Optical & Acoustic

Electronic voltage detector with micro controller and direct contact detection. New advanced technology acquisition that guarantees a perfect and safe indication even in conflicting electric field environments.

Voltage presence is indicated by high luminosity red LED and high acoustic pressure buzzer.
Voltage absence is indicated by high luminosity green LED.
Low battery is indicated by orange LED.
Self-checking system for its complete circuit by pressing test button.
Stops working when low battery.
Work temperature range: from -25ºC to +55ºC.
Self-ignition when voltage presence.
Auto turn-off into sleep mode after two minutes of voltage absence.
In this mode consumption in less than 1 µA.
Power supply: 9 V alkaline battery, type 6LR61 (included).
Indoor and outdoor use by appropriate insulating pole to the detector voltage range.
Connection to the pole by Universal head.
Supplied with carrying bag for pole and metallic box to store and transport the voltage detector with battery included.

Manufactured according to IEC 61243:2003+A1:2009 and UNE-EN 61243-1:2006+A1:2011 standards (exept voltage range).

VOLTAGE RANGES
from 25 kV

31002 VTE-25-U

Code	Ref.	Voltage ranges	Frequency
641120	**VTE-25-U**	25 kV	50 / 60 Hz



Medium voltage detector - Outdoor



VTM

IEC High resolution voltage detector
Medium Voltage - Optical & Acoustic

Electronic voltage detector with micro controller and direct contact detection. New advanced technology acquisition that guarantees a perfect and safe indication even in conflicting electric field environments.

Voltage presence is indicated by high luminosity red LED and high acoustic pressure buzzer.
Voltage absence is indicated by high luminosity green LED.
Low battery is indicated by orange LED.
Self-checking system for its complete circuit by pressing test button.
Stops working when low battery.
Work temperature range: from -25ºC to +55ºC.
Self-ignition when voltage presence.
Auto turn-off into sleep mode after two minutes of voltage absence. In this mode consumption is less than 1 µA.
Power supply: 9 V alkaline battery, type 6LR61 (included).
Indoor and outdoor use by appropiate insulating pole to the detector voltage range.
Connection to the pole by Universal head.
Supplied with metallic box with battery included.

According to IEC 61243:2003+A1:2009 and UNE-EN 61243-1:2006+A1:2011 standards

VOLTAGE RANGES
from 3 to 10 kV up to 22 to 66 kV
depending on the model



CE IEC 61243:2003+A1:2009
UNE-EN 61243-1:2006+A1:2011

31002 VTM

Code	Ref.	Voltage ranges	Frequency
645220	VTM-3/10-U	from 3 to 10 kV	50 / 60 Hz
645225	VTM-4/12-U	from 4 to 12 kV	
645230	VTM-10/30-U	from 10 to 30 kV	
645235	VTM-11/33-U	from 11 to 33 kV	
645240	VTM-15/45-U	from 15 to 45 kV	
645245	VTM-22/66-U	from 22 to 66 kV	

Medium voltage detector - Power Light



POWER LIGHT

IEC electronic voltage detector
Medium Voltage - Optical & Acoustic

Lamp in the top part with high-brightness, low-consumption LEDs, for use in dark places. Lamp use is independent of the detection system.
Voltage present indicator using multiple high-brightness red LEDs over 360º and buzzer-type intermittent acoustic signal.
Absence of voltage indicator with multiple high-brightness green LEDs over 360º.
Low battery indication by orange LED.
Self-checking system for the full circuit by pressing the test button.
Stops operating when the battery is low.
Working temperature range: -25ºC to +55ºC.
Auto-start-up with voltage presence.
Auto-power-down to standby after two minutes with absence of voltage. Power consumption is less than 1 µA in this mode.
Indoor and outdoor use by means of insulating pole appropriate to the detector voltage range.
Coupling to pole using Universal head.
2xAA high-capacity and high-durability batteries included.
Supplied with metallic box with batteries included.

According with standards IEC 61243:2003+A1:2009 and UNE-EN 61243-1:2006+A1:2011.

CE IEC 61243:2003+A1:2009
UNE-EN 61243-1:2006+A1:2011

VOLTAGE RANGES
from 1 to 3.3 kV up to 22 to 79 kV
depending on the model

31003 POWER LIGHT

Code	Ref.	Voltage ranges	Frequency
645266	POWER-1/3,3	from 1 to 3.3 kV	50 / 60 Hz
645260	POWER-3/10	from 3 to 10 kV	
645261	POWER-4/12	from 4 to 12 kV	
645262	POWER-10/30	from 10 to 30 kV	
645263	POWER-11/33	from 10 to 33 kV	
645267	POWER-10/36	from 10 to 36 kV	
645268	POWER-13/45	from 13 to 45 kV	
645264	POWER-15/45	from 15 to 45 kV	
645265	POWER-22/66	from 22 to 66 kV	
645269	POWER-22/79	from 22 to 79 kV	



POWER LIGHT

VOLTAGE RANGES
from 10 to 20 kV

Lamp in the top part with high-brightness, low-consumption LEDs, for use in dark places. Lamp use is independent of the detection system.
Voltage present indicator using multiple high-brightness red LEDs over 360° and buzzer-type intermittent acoustic signal.
Absence of voltage indicator with multiple high-brightness green LEDs over 360º.
Low battery indication by orange LED.
Self-checking system for the full circuit by pressing the test button.
Stops operating when the battery is low.
Working temperature range: -25°C to +55°C.
Auto-start-up with voltage presence.
Auto-power-down to standby after two minutes with absence of voltage. Power consumption is less than 1 µA in this mode.
Indoor and outdoor use by means of insulating pole appropriate to the detector voltage range. Coupling to pole using Universal head.
2xAA high-capacity and high-durability batteries included.
Supplied with metallic box with batteries included.

According with standards IEC 61243:2003+A1:2009 and UNE-EN 61243-1:2006+A1:2011.



NFC

Detector with free or configurable NFC (Near Field Communication).

NFC is a set of communication protocols for communication between two electronic that allows the exchange of data between devices.

IEC electronic voltage detector
+ Accessories
Medium Voltage - Optical & Acoustic

31003 POWER-10/20

Code	Ref.	Voltage ranges	Frequency
T645049	**POWER-10/20**	from 10 to 20 kV	50 / 60 Hz

CE IEC 61243:2003+A1:2009
UNE-EN 61243-1:2006+A1:2011



Kit items:

- 1 Rated voltaje – 10/20
- 1 Adapter electrode Nevers
- 1 Electrode Powerlight closed
- 1 Electrode Powerlight hook
- 1 Adapter from hexagonal-12
- to Universal head

VOLTAGE DETECTORS

Medium voltage detector - Power Light



POWER LIGHT

Electronic voltage detector
Medium Voltage - Optical & Acoustic

VOLTAGE RANGES
from 1 to 5 kV or from 5 to 79 kV

Lamp in the top part with high-brightness, low-consumption LEDs, for use in dark places. Lamp use is independent of the detection system.
Voltage present indicator using multiple high-brightness red LEDs over 360° and buzzer-type intermittent acoustic signal.
Absence of voltage indicator with multiple high-brightness green LEDs over 360º.
Low battery indication by orange LED.
Self-checking system for the full circuit by pressing the test button.
Stops operating when the battery is low.
Working temperature range: -25°C to +55°C.
Auto-start-up with voltage presence.
Auto-power-down to standby after two minutes with absence of voltage.
Power consumption is less than 1 µA in this mode.
Indoor and outdoor use by means of insulating pole appropriate to the detector voltage range. Coupling to pole using Universal head.
2xAA high-capacity and high-durability batteries included.
Supplied with metallic box with batteries included.

Manufactured according to IEC 61243:2003+A1:2009 and UNE-EN 61243-1:2006+A1:2011 standards (except voltage range).

31003 POWER LIGHT

Code	Ref.	Voltage ranges	Frequency
645280	**POWER-1/5**	from 1 to 5 kV	50 / 60 Hz
645285	**POWER-5/79**	from 5 to 79 kV	

HIGH
VOLTAGE DETECTOR
OPTICAL & ACOUSTIC

PROBABLY THE MOST RELIABLE
VOLTAGE DETECTOR
IN THE WORLD FOR HIGH VOLTAGE WORKS

- New advanced technology acquisition
- Direct contact detector
- 100% isolated from interferences from electromagnetic field
- Freedom of movement
- Perfect detection at any angle
- Long life battery
- Manufactured according to IEC 61243:2003+A1:2009 and UNE-EN 61243-1:2006+A1:2011 standards

sofamel
safety & connection

VOLTAGE DETECTORS

High voltage detector - Outdoor

VTA

IEC high tech voltage detector
High Voltage - Optical & Acoustic

Electronic voltage detector by micro controller and direct contact detection. New advanced technology acquisition by pulse of light that guarantees a perfect and safe indication even in conflicting electric field environments.
Work temperature range: from -25°C to +55°C.
Self-checking system for its complete circuit by pressing test button. Self-ignition when voltage presence.
Auto turn-off into sleep mode after two minutes of voltage absence. In this mode consumption is less than 1 µA.
Voltage presence is indicated by high luminosity red LED and high acoustic pressure buzzer.
Voltage absence is indicated by high luminosity green LED. Power supply 9 V alkaline battery, type 6LR61 (included).
Indoor and outdoor use by appropiate insulating pole to the detector voltage range.
Connection to the pole by Universal head.
Supplied with metallic box.

According to IEC 61243:2003+A1:2009 and UNE-EN 61243-1:2006+A1:2011 standards

CE IEC 61243:2003+A1:2009
UNE-EN 61243-1:2006+A1:2011





VOLTAGE RANGES
from 63 to 150 kV up to 225 to 420 kV
depending on the model

31004 VTA

Code	Ref.	Voltage ranges	Frequency
645162	**VTA-63/150-U**	from 63 to 150 kV	50 / 60 Hz
645164	**VTA-66/220-U**	from 66 to 220 kV	50 Hz
645165	**VTA-66/220-U**	from 66 to 220 kV	60 Hz
645172	**VTA-90/225-U**	from 90 to 225 kV	50 / 60 Hz
645184	**VTA-45/420-U***	from 45 to 420 kV	50 / 60 Hz
645182	**VTA-150/420-U**	from 150 to 420 kV	50 / 60 Hz
645186	**VTA-225/420-U***	from 225 to 420 kV	50 / 60 Hz

* In accordance to IEC 61243:2003+A1:2009 and UNE-EN 61243-1:2006+A1:2011 standards (except the voltage range).

VOLTAGE DETECTORS

DC voltage detector

DC voltage detector
with AC induced voltage indication
Optical & Acoustic





* Magnet applicable to the detector VTC-OAD I

Code	Ref.
645215	VTC-OAD
645216	VTC-OAD I *

CE

647 VTC-OAD

- **Field of application:** To be used in DC voltage electrical systems of up to 5000 DC, where there are adjacent AC systems of up to 25 kVA, not to be used in installations with only alternating current service voltage.
- **Working voltage range:** Direct current: 500 V < Vtdc < 5000 V
  AC induced voltage: 500 V < Vtac < 5000 V
- **Usage frequency:** DIRECT current
  ALTERNATING current 50-60 Hz
- **Operating Temperature:** -25°C to 55°C
- **Humidity range:** 20 to 96 %. Not apt for use in rainfall.
- **Indication of alert status:** By means of high luminosity green LED light. There is no voltage or it is below the detection thresholds.
- **Voltage presence indication:** Optical: fixed orange LED light when DC voltage presence.
  Flashing red LED light when AC induced voltage presence.
  Acoustic: Fixed buzzer when DC voltage presence. Alternated buzzer when AC voltage presence.
- **Battery:** 9 V, type 6LR61.
  Low battery indication by flashing green LED light and off when battery level is critical.
- **Ground cable:** Extra flexible cable with silicon sheath and 6 m length (possibility of other lengths at customer's request).
- **Insulation pole:** With universal head
- **Self-checking:** Full self-checking system with automatic disconnection after 2 minutes. WITHOUT DETECTION.
- **Automatic start-up:** Automatic start-up system using detection of voltage (approx. 400 Vdc).
- **Electrode:** Non-exchangeable. L type (without contact electrode extension).
- **Threshold voltage:** Between 350 to 490 V

VOLTAGE DETECTORS

DC voltage detector

DC voltage detector
Optical & Acoustic





* Magnet applicable to the detector VTC-OA I

Code	Ref.
645210	VTC-OA
645211	VTC-OA I *

CE

647 VTC-OA

- **Voltage range:** 500 V < Vt < 5000 V
- **Usage frequency:** DIRECT current
- **Operating temperature:** -25°C to 55°C
- **Humidity Range:** 20 to 96 %
- **Indication of alert status:** Through high luminosity green LED.
  There is no voltage or it is below the established detection threshold.
- **Indication of voltage presence:** Optical/Acoustic indication through high luminosity red LED and high pressure acoustic buzzer*.
- **Battery:** 9 V battery, type 6LR61
  Low battery indication by flashing green LED, when battery level is critical green led is off.
- **Earthing cable:** Extra flexible cable with silicon sheath and 6 m long
  (possibility of other lengths at customer's request).
- **Isulating pole:** With universal head.
- **Self-checking:** Full self-checking system with automatic disconnection after two minutes WITHOUT DETECTION.
- **Automatic start-up:** Automatic start-up system using detection of voltage (approx. 400V dc).
- **Electrode:** Possibility of exchanging electrode.
- **Threshold voltage:** Threshold 1 - From 350 to 490 V: Red led
  Threshold 2 - From 900 to 1100 V: Red and orange led

D-TUERI

A new era of Personal Voltage Detectors

MAXIMUM SAFETY



sofamel

360° Omnidirectional Detection

USB-C connection

Medium Voltage

Acoustic Signal

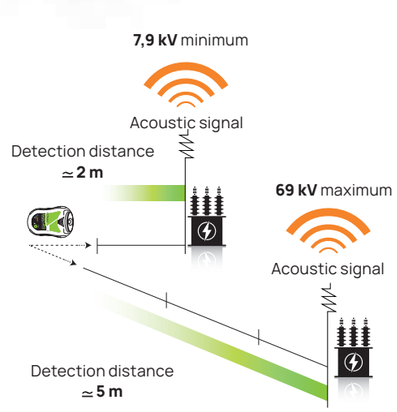
CE

VOLTAGE DETECTORS

Personal voltage detector

Omni-directional personal electric field detector
Medium Voltage - Optical & Acoustic





31006 D-TUERI PRO
7.9/69 kV

Additional individual safety device designed for personnel working in areas with electrical voltage, such as inspection tasks, cleaning operations, maintenance, and generally any work performed near live elements.

When the user is close to an electric field between 7.9 kV – 69 kV and exceeds a distance of approximately 2 metres for 7.9 kV and 5 metres for 69 kV, the detector emits a signal. The signal's frequency increases as the user gets closer to the live point. The alarm does not stop sounding until you move away from the dangerous zone.

360° Omnidirectional Detection

USB-C connection

Medium voltage

Acoustic Signal

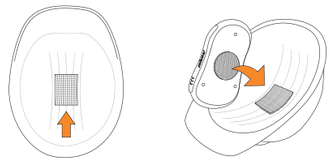
- Use in Distribution / Transformation centers and AC Airlines.
- Utilization range: Between 7.9-69 kV
- Operating frequency: 50 and 60 Hz
- Degree of protection: IP 65
- Luminous power: 2 W
- Power supply: Li ion battery 3.7 V 1050m Ah
- Supplied in an insulated box that includes the detector, a nylon carrying case, charger and USB cable.

Code	Ref.
645257	D-TUERI PRO

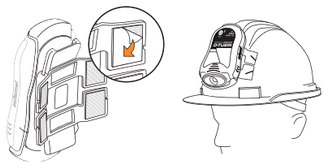
CE

Placement
The detector can be placed both **INSIDE** and **OUTSIDE**,
depending on the characteristics and requirements of the helmet.

INSIDE



OUTSIDE



Personal voltage detector

Omni-directional personal electric field detector
Medium Voltage - Optical & Acoustic

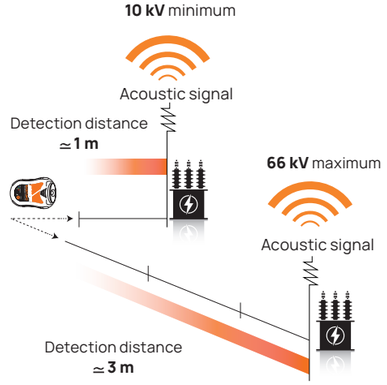


31006 D-TUERI EXPERT
10/66 kV

Additional safety element for individual use suitable for power line operators carrying out maintenance and in general all works close to an electric field.

When the user is close to an electric field between 10 kV – 66 kV and exceeds a distance of approximately 1 metres for 10 kV and 3 metres for 66 kV, the detector emits a signal. The alarm does not stop sounding until you move away from the dangerous zone.

360° Omnidirectional Detection · USB-C connection · Medium voltage · Acoustic Signal



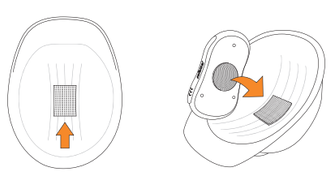
- Use in Distribution / Transformation centers and AC Airlines
- Utilization range: Between 10-66 kV
- Operating frequency: 50 and 60 Hz
- Degree of protection: IP65
- Luminous power: 2 W
- Power supply: Li ion battery 3.7 V 1050 mAh
- Supplied in an insulated box that includes the detector, a nylon carrying case, charger and USB cable.

Code	Ref.
645255	D-TUERI EXPERT

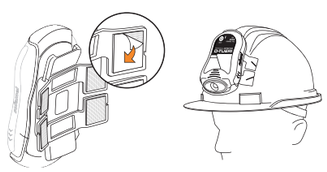
CE

Placement
The detector can be placed both **INSIDE** and **OUTSIDE**,
depending on the characteristics and requirements of the helmet.

INSIDE



OUTSIDE



VOLTAGE DETECTORS

Personal voltage detector

Omni-directional personal electric field detector
Medium Voltage - Optical & Acoustic

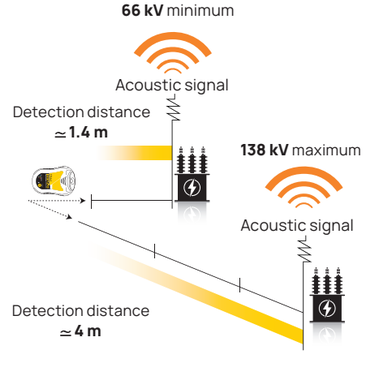


31006 D-TUERI PRO
66/138 kV

Additional safety device for individual use, specifically designed for transformer stations where the operator works in areas with very limited distance to the danger zone.

When the user is close to an electric field between 66 kV – 138 kV and exceeds a distance of approximately 1.4 meters for 66 kV and 4 meters for 138 kV, the detector emits a signal. The signal's frequency increases as we get closer to the live point. The alarm does not stop sounding until you move away from the dangerous zone.

360° Omnidirectional Detection · USB-C connection · Medium voltage · Acoustic Signal



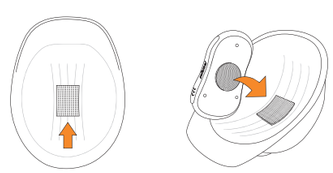
- Use in Distribution / Transformation centers and AC Airlines
- Utilization range: Between 66-138 kV
- Operating frequency: 50 and 60 Hz
- Degree of protection: IP 65
- Luminous power: 2 W
- Power supply: Li ion battery 3.7 V 1050 mAh
- Supplied in an insulated box that includes the detector, a nylon carrying case, charger and USB cable.

Code	Ref.
645258	D-TUERI PRO 66/138 kV

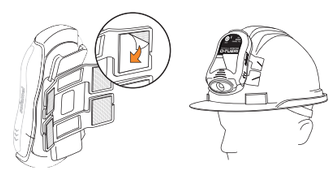
CE

Placement
The detector can be placed both **INSIDE** and **OUTSIDE**,
depending on the characteristics and requirements of the helmet.

INSIDE



OUTSIDE



Personal voltage detector

Omni-directional personal electric field detector
Medium Voltage - Optical & Acoustic



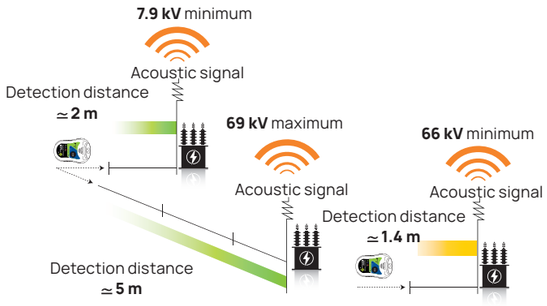
31006 D-TUERI DUAL
7.9/69 kV - 66 kV

Additional safety element for individual use indicated for power line operators who carry out maintenance, repairs and other work close to live lines with the possibility of switching to a less sensitive operating mode and getting closer to the points in electrical tension.

Mode 7.9/69 kV
When the user is close to an electric field between 7.9 kV – 69 kV and exceeds a distance of approximately 2 meters for 7.9 kV and 5 meters for 69 kV, the detector sounds a signal. The alarm does not stop sounding until you move away from the dangerous zone.

Mode 66 kV
When the user is close to an electric field of 66 kV and exceeds a distance of approximately 1.4 meters the detector sounds a signal. The alarm does not stop sounding until you move away from the dangerous zone.

360° Omnidirectional Detection | USB-C connection | Medium voltage | Acoustic Signal



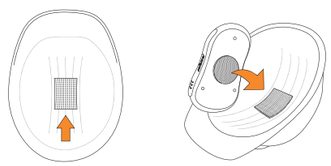
- Use in Distribution / Transformation centers, Substations and AC Airlines
- Utilization range: Between 7.9-69 kV
- Operating frequency: 50 and 60 Hz
- Degree of protection: IP 65
- Luminous power: 2 W
- Power supply: Li ion battery 3.7 V 1050 mAh
- Supplied in an insulated box that includes the detector, a nylon carrying case, charger and USB cable.

Code	Ref.
648300	D-TUERI DUAL 7.9/69 kV - 66 kV

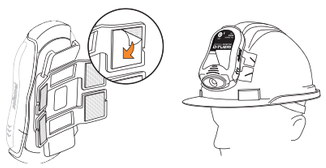
CE

Placement
The detector can be placed both **INSIDE** and **OUTSIDE**, depending on the characteristics and requirements of the helmet.

INSIDE



OUTSIDE



VOLTAGE DETECTORS

Personal voltage detector

Omni-directional personal electric field detector
Medium Voltage - Optical & Acoustic



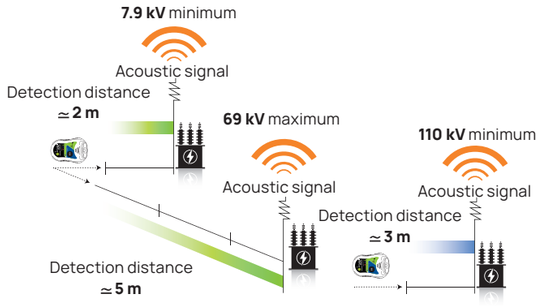
31006 D-TUERI DUAL
7.9/69 kV - 110 kV

Additional safety element for individual use indicated for power line operators who carry out maintenance, repairs and other work close to live lines with the possibility of switching to a less sensitive operating mode and getting closer to the points in electrical tension.

Mode 7.9/69 kV
When the user is close to an electric field between 7.9 kV – 69 kV and exceeds a distance of approximately 2 meters for 7.9 kV and 5 meters for 69 kV, the detector sounds a signal. The alarm does not stop sounding until you move away from the dangerous zone.

Mode 110 kV
When the user is close to an electric field of 110 kV and exceeds a distance of approximately 3 meters the detector sounds a signal. The alarm does not stop sounding until you move away from the dangerous zone.

360° Omnidirectional Detection | USB-C connection | Medium voltage | Acoustic Signal



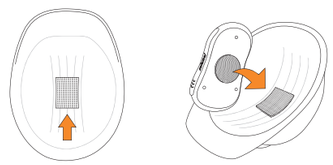
- Use in Distribution / Transformation centers, Substations and AC Airlines
- Utilization range: Between 7.9-110 kV
- Operating frequency: 50 and 60 Hz
- Degree of protection: IP 65
- Luminous power: 2 W
- Power supply: Li ion battery 3.7 V 1050 mAh
- Supplied in an insulated box that includes the detector, a nylon carrying case, charger and USB cable.

Code	Ref.
648310	D-TUERI DUAL 7.9/69 kV - 110 kV

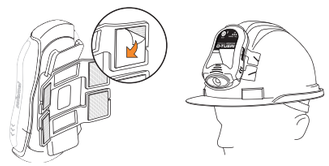
CE

Placement
The detector can be placed both **INSIDE** and **OUTSIDE**, depending on the characteristics and requirements of the helmet.

INSIDE



OUTSIDE



Omni-directional personal electric field detector
Medium Voltage - Optical & Acoustic



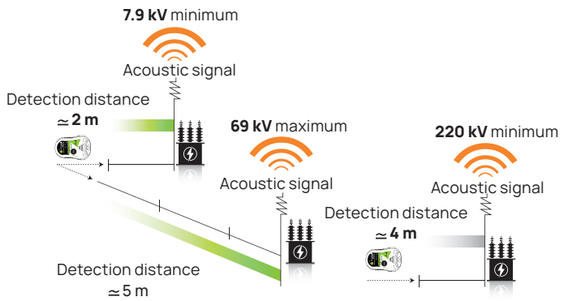
31006 D-TUERI DUAL
7.9/69 kV - 220 kV

Additional safety element for individual use indicated for power line operators who carry out maintenance, repairs and other work close to live lines with the possibility of switching to a less sensitive operating mode and getting closer to the points in electrical tension.

Mode 7.9/69 kV
When the user is close to an electric field between 7.9 kV – 69 kV and exceeds a distance of approximately 2 meters for 7.9 kV and 5 meters for 69 kV, the detector sounds a signal. The alarm does not stop sounding until you move away from the dangerous zone.

Mode 220 kV
When the user is close to an electric field of 220 kV and exceeds a distance of approximately 4 meters the detector sounds a signal. The alarm does not stop sounding until you move away from the dangerous zone.

360° Omnidirectional Detection | USB-C connection | Medium voltage | Acoustic Signal



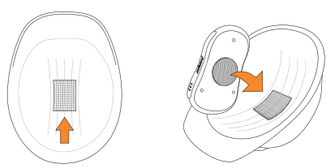
- Use in Distribution / Transformation centers, Substations and AC Airlines.
- Utilization range: Between 7.9-220 kV
- Operating frequency: 50 and 60 Hz
- Degree of protection: IP 65
- Luminous power: 2 W
- Power supply: Li ion battery 3.7 V 1050 mAh
- Supplied in an insulated box that includes the detector, a nylon carrying case, charger and USB cable.

Code	Ref.
648320	D-TUERI DUAL 7.9/69 kV - 220 kV

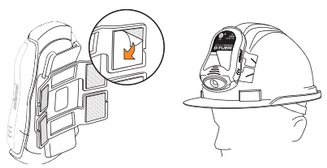
CE

Placement
The detector can be placed both **INSIDE** and **OUTSIDE**, depending on the characteristics and requirements of the helmet.

INSIDE



OUTSIDE



VOLTAGE DETECTORS

Personal voltage detector

Omni-directional personal electric field detector
Medium Voltage - Optical & Acoustic



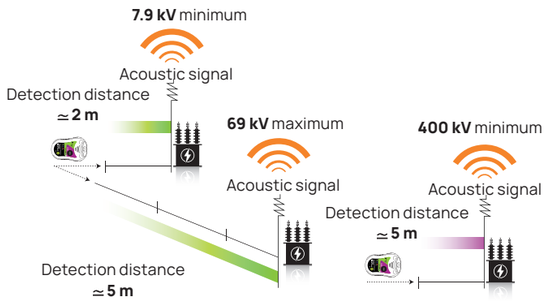
31006 D-TUERI DUAL
7.9/69 kV - 400 kV

Additional safety element for individual use indicated for power line operators who carry out maintenance, repairs and other work close to live lines with the possibility of switching to a less sensitive operating mode and getting closer to the points in electrical tension.

Mode 7.9/69 kV
When the user is close to an electric field between 7.9 kV – 69 kV and exceeds a distance of approximately 2 meters for 7.9 kV and 5 meters for 69 kV, the detector sounds a signal. The alarm does not stop sounding until you move away from the dangerous zone.

Mode 400 kV
When the user is close to an electric field of 220 kV and exceeds a distance of approximately 5 meters the detector sounds a signal. The alarm does not stop sounding until you move away from the dangerous zone.

360° Omnidirectional Detection | USB-C connection | Medium voltage | Acoustic Signal



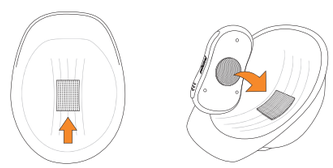
- Use in Distribution / Transformation centers, Substations and AC Airlines
- Utilization range: Between 7.9-400 kV
- Operating frequency: 50 and 60 Hz
- Degree of protection: IP 65
- Luminous power: 2 W
- Power supply: Li ion battery 3.7 V 1050 mAh
- Supplied in an insulated box that includes the detector, a nylon carrying case, charger and USB cable.

Code	Ref.
648330	D-TUERI DUAL 7.9/69 kV - 400 kV

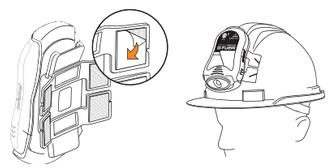
CE

Placement
The detector can be placed both **INSIDE** and **OUTSIDE**, depending on the characteristics and requirements of the helmet.

INSIDE



OUTSIDE



Omni-directional personal electric field detector
Medium Voltage - Optical & Acoustic



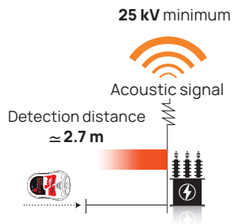
31006 D-TUERI PRO
25 kV

An additional individual safety element. This personal detector functions to alert the operator when approaching an electric field, thereby helping to prevent accidents. It is designed to be used in repair and maintenance work on high-speed railway installations operating with 25 kV alternating current.

When the user is close to an electric field of 25 kV and exceeds a distance of approximately 2.7 meters the detector sounds a signal. The beeping frequency increases as the user gets closer to the live point. The alarm does not stop sounding until you move away from the dangerous zone.



Omnidirectional Detection | USB-C connection | Medium voltage | Acoustic Signal



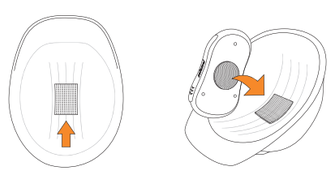
- Use in high-speed railway installations.
- Utilization range: 25 kV
- Operating frequency: 50 and 60 Hz
- Degree of protection: IP 65
- Luminous power: 2 W
- Power supply: Li ion battery 3.7 V 1050 mAh
- Supplied in an insulated box that includes the detector, a nylon carrying case, charger and USB cable.

Code	Ref.
654256	D-TUERI PRO 25 kV

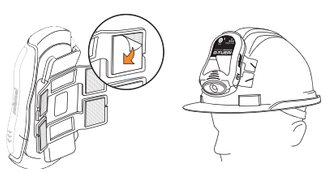
CE

Placement
The detector can be placed both **INSIDE** and **OUTSIDE**, depending on the characteristics and requirements of the helmet.

INSIDE



OUTSIDE



VOLTAGE DETECTORS

Personal voltage detector

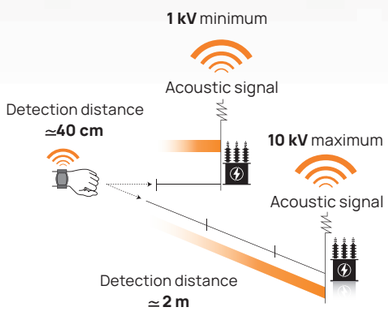
D-WATCH

FOR USE IN DISTRIBUTION CENTERS AND PLACES WITH REDUCED MOBILITY
MEDIUM VOLTAGE - ACOUSTIC

1-10 kV



Additional security element for individual use.
When the operator approaches an electric field between 1 kV - 10 kV and exceeds a distance of approximately 40 cm for 1 kV and 2 metres for 10 kV, the detector emits a sound to warn the operator that he is in a dangerous area. The alarm will not stop until the operator moves away from the voltage source. The device is always alert.



31006 D-WATCH

- Use in Distribution / Transformation centers, Substations and AC Airlines
- Utilization range: Between 7.9-400 kV
- Operating frequency: 50 and 60 Hz
- Degree of protection: IP 65
- Luminous power: 2 W
- Power supply: Li ion battery 3.7 V 1050 mAh
- Supplied in an insulated box that includes the detector, a nylon carrying case, charger and USB cable.

Code	Ref.
645680	D-WATCH

CE

COMBO PRO

D-TUERI PRO + D-WATCH



D-TUERI PRO
7.9/69 kV

D-WATCH
1/10 kV



The kit is sold in one special metallic box.

Elements of the kit:

- 1 D-Tueri PRO personal detector
- Helmet attachment accessories
- Charger and USB cable
- 1 nylon carrying case for transport the D-Tueri
- 1 D-Watch personal detector
- 1 nylon carrying case for transport the D-Watch

31006 COMBO PRO

Code	Ref.
648250	COMBO PRO

VOLTAGE DETECTORS

Personal voltage detector

COMBO EXPERT

D-TUERI EXPERT + D-WATCH



D-TUERI EXPERT
10/66 kV

D-WATCH
1/10 kV



The kit is sold in one special metallic box.

Elements of the kit:

- 1 D-Tueri EXPERT personal detector
- Helmet attachment accessories
- Charger and USB cable
- 1 nylon carrying case for transport the D-Tueri
- 1 D-Watch personal detector
- 1 nylon carrying case for transport the D-Watch

31006 COMBO EXPERT

Code	Ref.
648260	COMBO EXPERT

COMBO PRO 66/138 kV

D-TUERI PRO 66/138 kV + D-WATCH



D-TUERI
PRO 66/138 kV
66/138 kV

D-WATCH
1/10 kV



Elements of the kit:

- 1 D-Tueri PRO personal detector
- Helmet attachment accessories
- Charger and USB cable
- 1 nylon carrying case for transport the D-Tueri
- 1 D-Watch personal detector
- 1 nylon carrying case for transport the D-Watch

31006 COMBO PRO
66/138 kV

Code	Ref.
648270	COMBO PRO 66/138 kV

VOLTAGE DETECTORS

Personal voltage detector

COMBO DUAL

D-TUERI DUAL + D-WATCH



D-TUERI
DUAL
7.9/69 kV
66 kV

D-WATCH
1/10 kV



The kit is sold in one special metallic box.

Elements of the kit:

- 1 D-Tueri DUAL 7.9/69 kV - 66 kV personal detector
- Helmet attachment accessories
- Charger and USB cable
- 1 nylon carrying case for transport the D-Tueri
- 1 D-Watch personal detector
- 1 nylon carrying case for transport the D-Watch

31006 COMBO DUAL
7.9/69 kV - 66 kV

Code	Ref.
648290	COMBO DUAL 7.9/69 kV - 66 kV

COMBO DUAL

D-TUERI DUAL + D-WATCH



D-TUERI
DUAL
7.9/69 kV
110 kV

D-WATCH
1/10 kV



The kit is sold in one special metallic box.

Elements of the kit:

- 1 D-Tueri DUAL 7.9/69 kV - 110 kV personal detector
- Helmet attachment accessories
- Charger and USB cable
- 1 nylon carrying case for transport the D-Tueri
- 1 D-Watch personal detector
- 1 nylon carrying case for transport the D-Watch

31006 COMBO DUAL
7.9/69 kV - 110 kV

Code	Ref.
648220	COMBO DUAL 7.9/69 kV - 110 kV

VOLTAGE DETECTORS

Personal voltage detector

COMBO DUAL

D-TUERI DUAL + D-WATCH



D-TUERI
DUAL
7.9/69 kV
220 kV

D-WATCH
1/10 kV



The kit is sold in one special metallic box.

Elements of the kit:

- 1 D-Tueri DUAL 7.9/69 kV - 220 kV personal detector
- Helmet attachment accessories
- Charger and USB cable
- 1 nylon carrying case for transport the D-Tueri
- 1 D-Watch personal detector
- 1 nylon carrying case for transport the D-Watch

31006 COMBO DUAL
7.9/69 kV - 220 kV

Code	Ref.
648230	COMBO DUAL 7.9/69 kV - 220 kV

COMBO DUAL

D-TUERI DUAL + D-WATCH



D-TUERI
DUAL
7.9/69
400 kV

D-WATCH
1/10 kV



The kit is sold in one special metallic box.

Elements of the kit:

- 1 D-Tueri DUAL 7.9/69 kV - 400 kV personal detector
- Helmet attachment accessories
- Charger and USB cable
- 1 nylon carrying case for transport the D-Tueri
- 1 D-Watch personal detector
- 1 nylon carrying case for transport the D-Watch

31006 COMBO DUAL
7.9/69 kV - 400 kV

Code	Ref.
648240	COMBO DUAL 7.9/69 kV - 400 kV

VOLTAGE DETECTORS

Personal voltage detector

COMBO PRO 25 kV

D-TUERI DUAL + D-WATCH



D-TUERI
PRO
25 kV

D-WATCH
1/10 kV



The kit is sold in one special metallic box.

Elements of the kit:

- 1 D-Tueri PRO 25 kV personal detector
- Helmet attachment accessories
- Charger and USB cable
- 1 nylon carrying case for transport the D-Tueri
- 1 D-Watch personal detector
- 1 nylon carrying case for transport the D-Watch

31006 COMBO PRO
25 kV

Code	Ref.
648275	COMBO PRO 25 kV

SYNCRO

VOLTAGE DETECTOR FOR PHASES CONCORDANCE

MAXIMUM CONTROL IN THREE-PHASE NETWORKS FROM 1 TO 79 KV

OPTICAL & ACOUSTIC

- Wide range of working voltages (from 1 kV to 79 kV)
- Clear 360º indication thanks to illumination in the housing
- Long detection distance (up to 50m)
- Light weight and small dimensions
- Easy to use
- Indication of voltage on the emitter
- 16-bit microcontroller
- 2.4 GHz wireless communication
- Response time < 500ms
- Phase comparison based on zero crossing algorithm

sofamel
Safety & connection

Wireless voltage detector

SYNCRO

Wireless voltage detector for phase concordance
Medium Voltage - Optical & Acoustic



RX
RECEIVER

TX
TRANSMITTER

Wireless detector for phase concordance verification of a network, it allows to control all types of three-phase networks from 1 to 79 kV.

Maximum functional reliability offering the possibility of measurement even through obstacles, such as walls, doors, etc.

Guaranteed detection distance up to 50 m.

According to UNE-EN 61481-1:2015 standard.

31003 SYNCRO

- Voltage range: from 1 to 79 kV
- Frequency: 50 - 60 Hz
- Use: Indoor/Outdoor use with the insulating pole according to model/range of voltage of the testers used.
- Signaling: Optical and acoustic by LED diodes and buzzer.
- Class A: $\pm 10^{\circ} < \phi p \leq \pm 30^{\circ}$
- Climatic category: N, climatic conditions of use and storage, temperature from -25ºC to +55ºC, humidity from 20 to 96 %.
- Power supply: AA LR06 type battery, automatic disconnection system sleep mode (battery saving).
- Self-verification: Integrated device for self-verification of operation.

Code	Ref.
645287	SYNCRO

Bipolar voltage detector





Voltimetric pole
Low and Medium - Optical & Acoustic

Bipolar voltage detector with digital display OLED to be used in MV networks.
Internal and external use in dry environment.
Voltage range: from 0 kV to 6 kV AC.
Auto turn-off to standby mode after two minutes WITHOUT VOLTAGE DETECTION. In this mode consumption is less than 1 µA.
Double indication of concordance-discordance by LED lights, reading on digital display.
Removable antenna.
Power supply: 9 V alkaline battery, type 6LR61.

Functionalities:
Phase comparator.
Voltage meter (True RMS)

31007 PV0/6

- Rated voltage: from 0 to 6 kV AC
- LED optical indication
- Frequency: 50 Hz AC
- Type: resistive
- S class with extension of the contact electrode.
- Climatic category N, climatic conditions for use and storage, temperature from -25°C to +55°C, and humidity from 20 to 96%.
- Indoor and outdoor use in dry environment.
- Supplied with metallic box.

Code	Ref.	Length of wire	Hz	kV
650450	PV0/6	2 m	50	0 to 6

Consult for other frequencies.

Permanent voltage detector



CUSTODIAN
PERMANENT

For use in distribution centers
Medium and High voltage - Optical

Custodian is permanently positioned to indicate presence of tension by a light.
For use indoors, in the rooms of medium and high voltage in the transformation centers.
It is placed on bars or cables with voltage from 5 to 138 kV. Possibility of exchange of the contact electrode by the user.

31001 CUSTODIAN

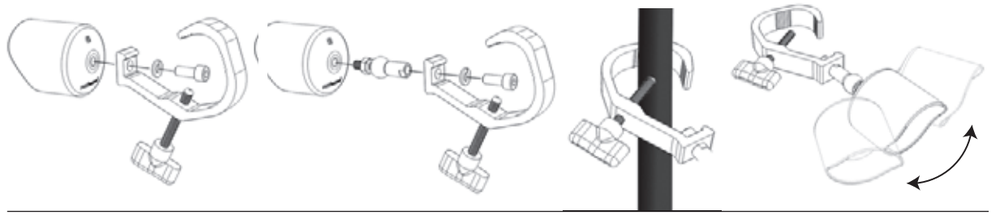
- Phase-Earth voltage of use: 2.9 - 79.6 kV
- Phase-phase voltage of use: 5 - 138 kV
- Clamp opening: 22 - 53 mm
- Connection interface: M8 female
- Rotating orientation 30° in any direction
- Indoor use
- Protection degree IP65 (test pending)
- Supplied in a carton box

Code	Ref.
640250	CUSTODIAN

CE

Assembly	Anchored to busbars or cables with voltages from 5 to 138 kV

Option 1 - Fixed Option 2 - Adjustable



Rescue panoplies

In the event of an electrical accident, fast intervention is essential. The panel contains all the rescue tools in a single place making it accessible to all users when an intervention is necessary.

POSSIBILITY OF CONFIGURATION TO MEASURE



31101 SZ-51B

Composed of a 1 x 1.6 m board that contains the following elements:

- 1 BS-45 rescue pole
- 1 5-36 kV voltage detector with pole
- 1 plastic case for gloves
- 1 pair of dielectric gloves (class 3)
- 1 VC-300/25 insulated wire cutter
- 1 resuscitator
- 1 45 kV insulating stool
- 1 pair of insulating boots (class 2)
- 1 first aid plate
- 1 instruction plate

Product supplied with screws and nail plug (to hang).

Code	Description	Ref.
690130	Spanish	**SZ-51B**
690130 I	English	**SZ-51B**
690130 F	French	**SZ-51B**

* For other configurations, please inquire.

RESCUE AND FIRST AID

Rescue panoplies

In the event of an electrical accident, fast intervention is essential. The panel contains all the rescue tools in a single place making it accessible to all users when an intervention is necessary.

POSSIBILITY OF CONFIGURATION TO MEASURE



31101 SZ-51M

Composed of a 1 x 1.6 m board that contains the following elements:

- 1 BS-45 rescue pole
- 1 5-36 kV voltage detector with pole
- 1 plastic case for gloves
- 1 pair of dielectric gloves (class 3)
- 1 VC-300/25 insulated wire cutter
- 1 resuscitator
- 1 45 kV insulating stool
- 1 pair of insulating shoes
- 1 first aid plate
- 1 instruction plate

Product supplied with screws and nail plug (to hang).

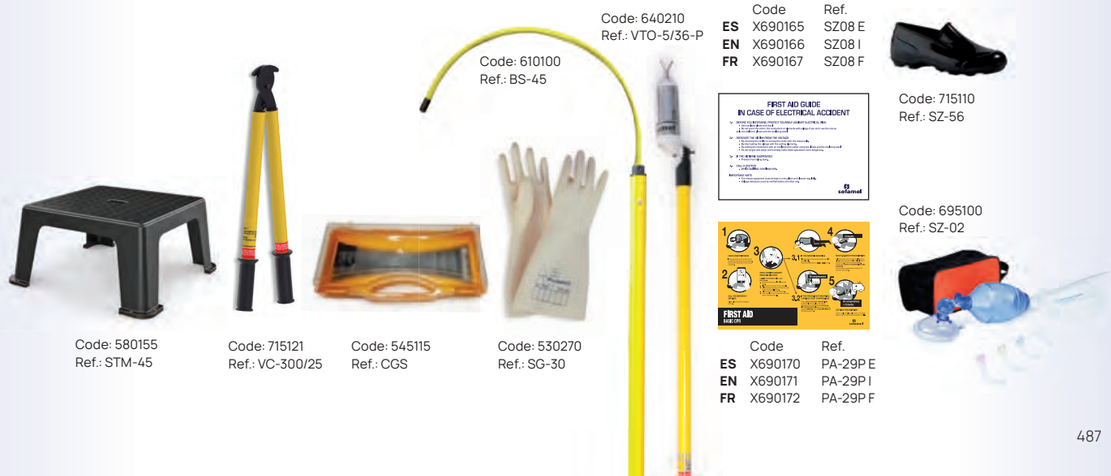
Code	Description	Ref.
690110	Spanish	**SZ-51M**
690110 I	English	**SZ-51M**
690110 F	French	**SZ-51M**

* For other configurations, please inquire.



	Code	Ref.
ES	X690165	SZ08 E
EN	X690166	SZ08 I
FR	X690167	SZ08 F

	Code	Ref.
ES	X690170	PA-29P E
EN	X690171	PA-29P I
FR	X690172	PA-29P F



	Code	Ref.
ES	X690165	SZ08 E
EN	X690166	SZ08 I
FR	X690167	SZ08 F

	Code	Ref.
ES	X690170	PA-29P E
EN	X690171	PA-29P I
FR	X690172	PA-29P F

Rescue panoplies

In the event of an electrical accident, fast intervention is essential. The panel contains all the rescue tools in a single place making it accessible to all users when an intervention is necessary.

POSSIBILITY OF CONFIGURATION TO MEASURE



31101 SZ-51AC

Consists of a 1 x 1.6 m board with the following items:

- 1 36 kV insulating stool
- 1 rescue pole BS-45
- 1 plastic box for gloves
- 1 pair of class 0 gloves
- 1 60 cm x 1 m insulating mat with working voltage 1 kV
- 1 pneumatic glove tester SG-117
- 1 first-aid kit SZ-06
- 1 1.2 x 1.8 m fireproof blanket
- 1 resuscitator
- 1 ABS padlock C/ABS-25 red
- 1 first aid diagram
- 1 diagram with the five golden rules for automotive

Product supplied with screws and nails (for hanging).

Code	Description	Ref.
690230	Spanish	**SZ-51AC**
690230 I	English	**SZ-51AC**
690230 F	French	**SZ-51AC**

* For other configurations, please inquire.

RESCUE AND FIRST AID

Rescue panoplies

In the event of an electrical accident, fast intervention is essential. The panel contains all the rescue tools in a single place making it accessible to all users when an intervention is necessary.

POSSIBILITY OF CONFIGURATION TO MEASURE



31101 SZ-51AB

Consists of a 1 x 1.6 m board with the following items:

- 1 36 kV insulating stool
- 1 rescue pole BS-25
- 1 CTL-1000 professional multimeter with True RMS
- 1 plastic box for gloves
- 1 pair of class 0 gloves
- 1 60 cm x 1 m insulating mat with working voltage 1 kV
- 1 resuscitator
- 1 first aid diagram
- 1 diagram with the five golden rules for automotive

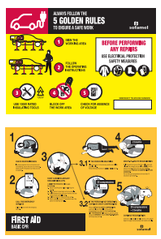
Product supplied with screws and nails (for hanging).

Code	Description	Ref.
690209	Spanish	**SZ-51AB**
690209 I	English	**SZ-51AB**
690209 F	French	**SZ-51AB**

* For other configurations, please inquire.



	Code	Ref.
ES	X725000	CRO-29P
EN	X725001	CRO-29P I
FR	X725002	CRO-29P F

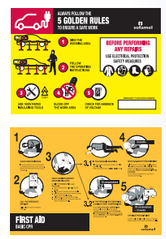


	Code	Ref.
ES	X690170	PA-29P E
EN	X690171	PA-29P I
FR	X690172	PA-29P F





	Code	Ref.
ES	X725000	CRO-29P
EN	X725001	CRO-29P I
FR	X725002	CRO-29P F



	Code	Ref.
ES	X690170	PA-29P E
EN	X690171	PA-29P I
FR	X690172	PA-29P F

Manoeuvering and rescue kit



The essential and handy safety kit



31102 KRM-4001

The kit is sold in one special black plastic box.

Code	Ref.
690114	KRM-4001

* For other compositions, please consult.

Elements of the kit:

- 1 1.5 m telescopic pole of three sections
- 1 optical and acoustical detector from 5 to 36 kV with bag
- 1 rescue hook with universal head
- 1 pair of dielectric gloves SG-40 T10 stored in a nylon bag
- 1 insulating mat AD4-0610/40C of 60 cm x 1 m, working
- voltage 36 kV
- 1 resuscitator
- 1 neck immobilizer
- 1 fire resistant blanket SZ-180 of 1.2 x 1.8 m
- 1 stretcher



RESCUE AND FIRST AID

First aid material



31103 SZ-02
Standard resuscitator

Portable resuscitator designed to be used in emergency situations. It provides pulmonary ventilation for those people whose respiratory function is deteriorated. Includes transparent mask with pneumatic edge and connection for oxygen. It is supplied with a carrying bag.

Code	Ref.
695100	SZ-02



30603 SZ-56
Insulating shoes

A pair of overshoes made of insulating material to move around the accident area with insulation from the floor.
Up to 1000 V.

Code	Ref.
715110	SZ-56



31103 SZ-05
First aid kit

Material included.
Box which contains the necessary items for first aid.

Code	Ref.	Wraparound	Dimensions
700100	SZ-05	Metallic	37 x 30 x 13 cm



31103 SZ-06
First aid kit

Material included.
Box which contains the necessary items for first aid.

Code	Ref.	Wraparound	Dimensions
700110	SZ-06	Plastic	38 x 26 x 13 cm

RESCUE AND FIRST AID

First aid material



31103 SZ-07
Stretcher

180x55 cm canvas stretcher with metal bars that can be taken apart into three parts. Folded 70 x 10 x 10 cm. Supplied with carrying bag.

Code	Ref.
705100	SZ-07

CEE 93/42 Sanitary products





30503 SZ
Fire-resistant blankets

Fire-resistant blankets made of flameproof fabric based on fiberglass wich is coated both sides with special high temperature resistant silicone.
Immediate use device.
It stands up to temperatures of 1100°C for more than 15 min.

Especially efficient where fire extinguishers use in inadvisable.
Supplied in a rigid red color plastic case.
According to UNE-EN-1869:97

Code	Ref.	Dimensions
710100	SZ-100	100 x 100 cm
710110	SZ-120	120 x 120 cm
710120	SZ-180	120 x 180 cm

UNE - EN - 1869:97

Wires



31104 SZ-57
Wire cutter

Insulated wire cutter indicated for cutting cables up to Ø 25 mm. Incorporates metallic blades and two handles made of polyester reinforced with fibreglass of 32 mm diameter.

Code	Ref.	Length (mm)	Insolation	Weight
715120	SZ-57/25	670	25 kV	2.7 kg
715125	SZ-57/36	830	36 kV	2.9 kg



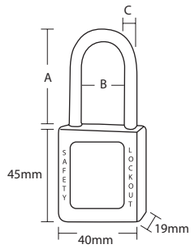
31104 VC-300
Wire cutter

Insulated wire cutter indicated for cutting cables up to Ø 25 mm. Incorporates metallic blades and two handles made of polyester reinforced with fibreglass of 32 mm diameter.

Code	Ref.	Length (mm)	Insolation	Weight
715121	VC-300/25	620	25 kV	1.18 kg
715126	VC-300/36	720	36 kV	1.3 kg

PADLOCKS

Padlocks

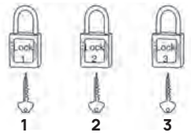




Metal shank padlocks

Padlocks for blocking off a single work area and/or area in discharge.
Available in three different colours depending on their use.





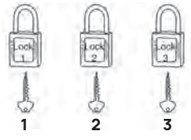
DIFFERENT KEYS

31201 C/ABS-25
ABS security padlock

Body made of ABS with high impact resistance, UV protection, low and high temperature resistance.
Includes "danger" and "property of" markings.
Blue, red and yellow colours.
Dimensions: 40 x 45 x 19 mm.
With a different key for each padlock.

Code	Ref.	Colours	A	B	C
761100	C/ABS-25 AZ		25	20	6
761103	C/ABS-25 RJ		25	20	6
761106	C/ABS-25 AM		25	20	6





DIFFERENT KEYS

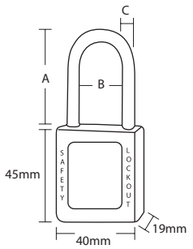
31201 C/ABS-38
ABS security padlock

Body made of ABS with high impact resistance, UV protection, low and high temperature resistance.
Includes "danger" and "property of" markings.
Blue, red and yellow colours.
Dimensions: 40 x 45 x 19 mm.
With a different key for each padlock.

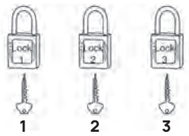
Code	Ref.	Colours	A	B	C
761101	C/ABS-38 AZ		38	20	6
761108	C/ABS-38 RJ		38	20	6
761110	C/ABS-38 AM		38	20	6

Nylon shank padlocks

Padlocks for blocking off a single work area and/or area in discharge.
Available in three different colours depending on their use.







DIFFERENT KEYS

31201 C/COM-38-DK
Composite security padlock

Body made of composite.
Non-conductive. Does not produce sparks. Dielectric test.
Appropriate for use in environments which entail inflammable or explosive risk.
Blue, red and yellow colours.
Dimensions: 40 x 45 x 19 mm
With a different key for each padlock.

Code	Ref.	Colours	A	B	C
761102	C/COM-38-DK AZ		38	20	6
761107	C/COM-38-DK RJ		38	20	6
761109	C/COM-38-DK AM		38	20	6





SINGLE KEYS

31201 C/COM-38-SK
Composite security padlock

Body made of composite.
Non-conductive. Does not produce sparks. Dielectric test.
Appropriate for use in environments which entail inflammable or explosive risk.
Blue, red and yellow colours.
Dimensions: 40 x 45 x 19 mm
With same key for each padlock.

Code	Ref.	Colours	A	B	C
761113	C/COM-38-SK AZ		38	20	6
761112	C/COM-38-SK RJ		38	20	6
761114	C/COM-38-SK AM		38	20	6



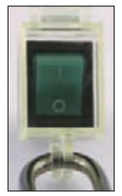


31202 P/PU-29
Protective cover for pushbutton

Made of transparent resin.
Used for preventing an unwanted operation being carried out by mistake.
Used for pushbuttons up to Ø 29 mm.

Code	Ref.
762100	P/PU-29







31202 P/IN-28
Protective cover for switch

Made of transparent resin.
Used for preventing an unwanted operation being carried out by mistake.
Used for switches of 28 mm long x 22.5 mm wide.

Code	Ref.
762101	P/IN-28





31202 P/EM
Cover for pushbutton

Made of transparent resin.
Used for preventing an unwanted operation being carried out by mistake.

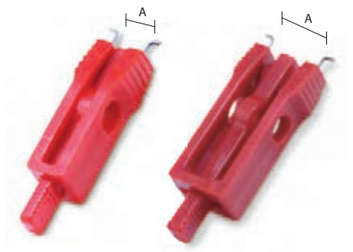
Code	Ref.	Installation hole Ø
762102	P/EM-22	22 mm
762103	P/EM-30,5	30.5 mm



31202 P/DMT
Lockout for switches

Made of nylon.
Automatic lockout for switches using stainless steel saw-tooth mechanism.
Adjustable to cover a wider range.

Code	Ref.	Dimensions
762110	P/DMT	47 x 32 x 15 mm



P/DM-11 P/DM-20

31202 P/DM
Lockout for switches

Made of nylon.
Lockout for switches, circuit breakers, differentials and power control switches.



Code	Ref.	Dimensions	A
762104	P/DM-11	57.4 x 14.5 x 14 mm	11 mm
762105	P/DM-20	68.3 x 23.3 x 314 mm	20 mm



31202 P/DIG-41
Lockout for switches



Made of nylon.
Lockout for automatic switches using a stainless steel saw-tooth system. Thanks to its full adjustablity, it allows encompassing a wider range.

Code	Ref.	Dimensions	Description
762106	P/DIG-41	68.3 x 48.3 x 27.6 mm	For circuit breakers with maximum dimensions of 41 x 15.8 mm



31202 P/DIP-9
Lockout for switches



The shell is made of ABS resin material and the main body is made of durable material.
Its design allows an easy and fast installation.

Code	Ref.	Dimensions	Description
762107	P/DIP-9	68.5 x 23.5 x 14 mm	For circuit breaker ≤10mm, no width limit.



31202 P/DIPA-9
Lockout for switches



Made of nylon.
Lockout for automatic switches using a stainless steel saw-tooth system. Thanks to its full adjustability, it allows encompassing a wider range.

Code	Ref.	Dimensions
762108	P/DIPA-9	93 x 34.3 x 28 mm



31102 P/BOL-450
Pouch for storing plugs

Made of break-resistant nylon.
Ideal for safe-keeping of any size electrical connectors.

Code	Ref.	Dimensions
762109	P/BOL-450	450 x 250 mm









31203 P/VAL
Protective for valves



Made of ABS, anti-blow with high wear resistance.
Efficient operation in extreme conditions.
Temperature range from -20°C to 100°C.
Protects from accidental opening of the valve.
Label for identifying the person responsible.

Code	Ref.	Dimensions
763100	P/VAL-63R	25 mm - 63 mm
763101	P/VAL-127	63 mm - 127 mm
763102	P/VAL-165	127 mm - 165 mm
763103	P/VAL-254	165 mm - 254 mm



31203 EV-52
Lockout hasps

Used for blocking different sized gate valves as well as multiple valves.
Lighter than chains, the device is easy to transport and use.
Cable made of Ø 5 mm plasticised steel and 2.0 m long.
Holds six padlocks.

Code	Ref.
763104	EV-52





31203 EV-318
Lock-and-tag device with adjustable tie cable

Consists of safety clamp and 4 mm multi-filament strong and flexible steel cable insulated with a clear plastic coating (PVC-free).
Adhesive safety label to identify the person responsible for installation of device.
Used to block gate valves of different sizes, and to block multiple valves at once.
Lighter than chains, the device is easy to carry and use.
Cable made from laminated steel Ø 3 mm and 1.8 m. long. Can fit five locks.

Code	Ref.
763105	EV-318

Lockouts

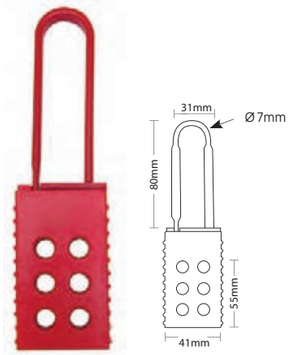


EN-6/38 EN-6/25

31204 EN-6
Lockout hasps

Protects the equipment from being opened accidentally.
Holds six padlocks.
Shackle made of steel with polypropylene-covered handle

Code	Ref.	Dimensions	Ø Ring
764100	**EN-6/25**	115 x 45 mm	26 mm
764101	**EN-6/38**	130 x 60 mm	39 mm



31204 EA-7818
Lockout hasps

Protects the equipment from being opened accidentally. Holds six padlocks. Fully insulated lockout. Made of polyamide.
Dielectric protection.
Non-conductive. Anti-spark.

Code	Ref.	Medidas	Dimensions ring
764102	**EA-7818**	157 x 45 mm	78 x 78 mm



31204 EAL-3628
Lockout hasps

Made of anodized aluminium with high anti-corrosion protection.
Identification by name, department and comments label.
Holds six padlocks.

Code	Ref.	Dimensions	Dimensions ring
764103	**EAL-3628**	188 x 76 mm	36 x 28 mm

Containers



31205 SB-12
Lock box

After machine or process is locked out, the keys can be kept in the lock box.
Each authorised person can place a personal padlock in the box as to prevent it from being opened.
Ensures that no single employee has access to the box unless all the employees have removed their padlocks.
Holds 12 padlocks + master padlock.
Supplied without products.

Code	Ref.	Dimensions
765100	**SB-12**	260 x 103 x 152 mm

Containers

Lockout station

Panel made of ABS.
Door made of high-resistance polycarbonate.
Used for organising daily use of padlocks and labels.





31205 LS-4

Code	Ref.	Dimensions	Capacity
765101	**LS-4**	300 x 210 x 60 mm	Supplied without products
765111	**LS-4-D**	300 x 210 x 60 mm	Supplied with: 4 padlocks (cod. 761108) 2 lockout hasps (cod. 764101) 25 labels (cod. 765103)



31205 LS-10

Code	Ref.	Dimensions	Capacity
765102	**LS-10**	486 x 300 x 60 mm	Supplied without products
765112	**LS-10-D**	486 x 300 x 60 mm	Supplied with: 10 padlocks (cod. 761108) 3 lockout hasps (cod. 764101) 25 labels (cod. 765103)

Aluminium signs

Triangle with lightning screen-printing, black border and yellow background.

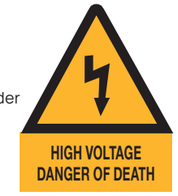


31301 Electrical hazard

Code	Ref.	Dimensions
720100	AE-10S	105 mm
720110	AE-14S	148 mm
720120	AE-21S	210 mm
720130	AE-29S	297 mm

UNE-EN ISO 7010

Triangle with lightning screen-printing, black border and yellow background. Text: "HIGH VOLTAGE DANGER OF DEATH".



31301 High voltage

Code	Ref.	Dimensions
720140 I	CE-10S	105 mm
720150 I	CE-14S	148 mm
720160 I	CE-21S	210 mm
720170 I	CE-29S	297 mm

UNE-EN ISO 7010

Triangle with lightning screen-printing, black border and yellow background. Text: "RETURN VOLTAGE DANGER OF DEATH".



31301 Return voltage

Code	Ref.	Dimensions
720180 I	CR-10S	105 mm
720190 I	CR-14S	148 mm
720200 I	CR-21S	210 mm
720210 I	CR-29S	297 mm

UNE-EN ISO 7010

Circular sign of manoeuvre prohibition.



31301 Manoeuvring forbidden

Code	Ref.	Dimensions
720220	PM-10S	105 mm
720230	PM-21S	210 mm

UNE-EN ISO 7010

SIGNS AND BEACONS

Adhesive plastic signs

Triangle with lightning screen-printing, black border and yellow background.



31302 Electrical hazard

Code	Ref.	Dimensions
725100	AE05ADH	52 mm
725110	AE10ADH	105 mm
725115	AE21ADH	210 mm

UNE-EN ISO 7010

Triangle with lightning and 230 V screen-printing, black border and yellow background.



31302 Electrical hazard 230V

Code	Ref.	Dimensions
725120	VT230V55	52 mm
725130	VT230V10	105 mm

UNE-EN ISO 7010

Triangle with lightning and 400 V screen-printing, black border and yellow background.



31302 Electrical hazard 400V

Code	Ref.	Dimensions
725140	VT400V55	52 mm
725150	VT400V10	105 mm

UNE-EN ISO 7010

Triangle with Earthing symbol screen-printing, black border and yellow background.

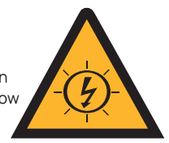


31302 Earthing

Code	Ref.	Dimensions
725155	TT05ADH	52 mm
725160	TT10ADH	105 mm

UNE-EN ISO 7010

Screen printed triangle with the photovoltaic identification symbol, black outline and yellow background.



31302 Photovoltaic installation

Code	Ref.	Dimensions
725170	IF10ADH	105 mm

UNE-EN ISO 7010



31302 Risk electric / hybrid car

Self-adhesive label to place on windows and windshields of damaged electric and hybrid vehicles.

Code	Ref.	Dimensions
725010	SA-HEV	280 x 210 mm

UNE-EN ISO 7010

Adhesive plastic signs and PVC signs



Prohibition of operation

31302 Type A signs

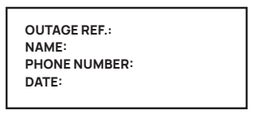
Rectangular adhesive signs printed on one side.
Dimensions: 85 x 120 mm.

31302 Type B signs

Rectangular PVC signs printed on one side.
Dimensions: 150 x 200 mm and 1 mm thickness.

Code	Ref.	Type	Dimensions
725180 I	**PC120A**	A	85 x 120 mm
730180 I	**PC200B**	B	150 x 200 mm

UNE-EN ISO 7010



31302 Neutral identification label

Rectangular adhesive signs printed on one side.
Dimensions: 120 x 50 mm.

Code	Ref.	Dimensions
725185 I	**EN50A**	120 x 50 mm

UNE-EN ISO 7010

Rectangular warning signs can be Type A or Type B, depending on the installation to be signaled and its location.









31302 Type A Signs

Rectangular adhesive signs printed on one side, measuring 85 x 120 mm.

31303 Type B Signs

Rectangular PVC signs printed on one side, measuring 150 x 200 mm and 1 mm thick.

TYPE A: 85 x 120 mm

Code	Ref.	Description
725181 I	**ZD120A**	Discharge area
725182 I	**ZT120A**	Work area
725183 I	**PTR120A**	Return voltage hazard
725184 I	**RE120A**	Electrical risk

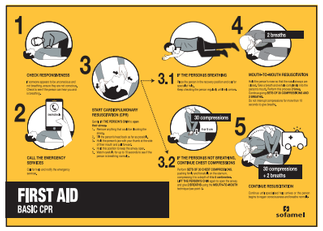
UNE-EN ISO 7010

TYPE B: 150 x 200 mm

Code	Ref.	Description
730181	**ZD200B**	Discharge area
730182	**ZT200B**	Work area
730183	**PTR200B**	Return voltage hazard
730184	**RE200B**	Electrical risk

UNE-EN ISO 7010

PVC signs



31303 First aid

Sofamel

Code	Ref.	Language	Dimensions
730100	**PA-42P**	Spanish	297 x 420 mm
730101	**PA-42P**	English	297 x 420 mm
730102	**PA-42P**	French	297 x 420 mm
730110	**PA-29P**	Spanish	210 x 297 mm
730111	**PA-29P**	English	210 x 297 mm
730112	**PA-29P**	French	210 x 297 mm

UNE-EN ISO 7010 Available in other languages on request.



31303 First aid

Endesa

Code	Ref.	Language	Dimensions
730103	**PA-EN**	Spanish	420 x 297 mm

UNE-EN ISO 7010



31303 First aid

Iberdrola

Code	Ref.	Language	Dimensions
730104	**PA-ID**	Spanish	420 x 297 mm

UNE-EN ISO 7010

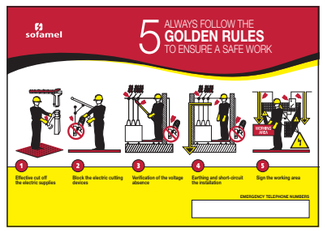


31303 Prerequisites

Code	Ref.	Language	Dimensions
730120	**RTE-42P**	Spanish	297 x 420 mm
730121	**RTE-42P**	English	297 x 420 mm
730122	**RTE-42P**	French	297 x 420 mm
730130	**RTE-29P**	Spanish	210 x 297 mm
730131	**RTE-29P**	English	210 x 297 mm
730132	**RTE-29P**	French	210 x 297 mm

UNE-EN ISO 7010 Available in other languages on request.

PVC signs



31303 Five golden rules
Sofamel

Code	Ref.	Language	Dimensions
730140	**CRO-42P**	Spanish	420 x 297 mm
730144	**CRO-42P**	English	420 x 297 mm
730146	**CRO-42P**	French	420 x 297 mm

UNE-EN ISO 7010

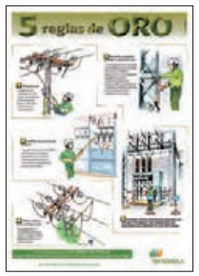
Available in other languages on request.



31303 Five golden rules
Endesa

Code	Ref.	Language	Dimensions
730143	**CRO-EN**	Spanish	420 x 297 mm

UNE-EN ISO 7010



31303 Five golden rules
Iberdrola

Code	Ref.	Language	Dimensions
730141	**CRO-IB**	Spanish	420 x 297 mm

UNE-EN ISO 7010

Printed on cardstock.



31303 Five golden rules for electric / hybrid vehicles

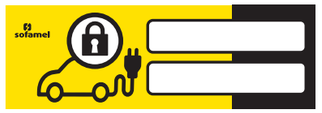
Code	Ref.	Language	Dimensions
730003	**CRO-HEV**	Spanish	297 x 420 mm
730003I	**CRO-HEV**	English	297 x 420 mm
730003F	**CRO-HEV**	French	297 x 420 mm

UNE-EN ISO 7010

Available in other languages on request.

SIGNS AND BEACONS

PVC signs



31303 For electric / hybrid vehicles

Code	Ref.	Dimensions
730001	**cp-hev**	450 x 150 mm

UNE-EN ISO 7010



31303 Signal for electric / hybrid car risk post

Code	Ref.	Dimensions
730002	**SS-hev**	450 x 150 mm

UNE-EN ISO 7010

Polycarbonate signs

Triangle with lightning screen-printing, black border and yellow background. Text: "HIGH VOLTAGE DANGER OF DEATH".



31304 High voltage

Code	Ref.	Dimensions
735100 I	**CE-14PCI**	148 mm
735110 I	**CE-21PCI**	210 mm

UNE-EN ISO 7010

Signs tapes and beacon tapes



For underground cables signalling.
Made of 150 mm yellow color PVC.
500 m rolls.
Text: "WARNING! ELECTRIC CABLES UNDERGROUND".

31305 Sign tape

Code	Ref.	Marking	Dimensions
740100 I	**CCS-01AM**	Neutral	150 mm x 500 m
740110 I	**CCS-01AM/IB**	Iberdrola	150 mm x 500 m
740140 I	**CCS-01AM/UF**	Fenosa	150 mm x 500 m
740153 I	**CCS-01AM/END**	Endesa	150 mm x 500 m

UNE-EN ISO 7010



31305 ST-62A
Work area delimiting

25 m work area delimiting tape reel. Please consult for other dimensions.

Code	Ref.
740180	**ST-62A**

UNE-EN ISO 7010



BEACON TAPES

Tapes for other uses in work areas. Ideal for areas where access cannot be prevented and there is a specific work area to tape off. These tapes are not a substitute for work area cordons. Made from polyethylene laminate 80 mm wide and printed on both sides in yellow/black and white/red colour strips.



31305 ST-63
Beacon tapes

Red and white polyethylene beacon tape.
250 m rolls and 8 cm wide.

Code	Ref.	Colour
740160	**ST-63**	Red and white



UNE-EN ISO 7010

31305 ST-64
Beacon tapes

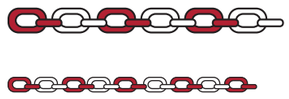
Black and yellow polyethylene beacon tape.
250 m rolls and 8 cm wide.

Code	Ref.	Colour
740170	**ST-64**	Black and yellow



UNE-EN ISO 7010

Demarcation





31306 Polyethylene chain

High resistant red and white sign chain. 25 m rolls.

Code	Ref.	Dimensions
745110	**SP-52A**	29 x 52 x 7.5 mm
745100	**SP-35A**	20 x 35 x 5 mm

31306 SP-01A
Chain support

Code	Ref.	Model	Height	Ø	Weight
745140	**SP-01A**	With base	1 m	60 mm	10 kg



31306 ST-70
Signs flags

Red flag with lightning.

Code	Ref.	Dimensions
750100	**ST-70**	60 x 35 cm

UNE-EN ISO 7010



31306 ST-71
Banner

Red banner with lightning.

Code	Ref.	Dimensions
750110	**ST-71**	60 x 35 cm

UNE-EN ISO 7010

Demarcation



31306 ST-72
Hangings signs

Code	Ref.	Length
750120 I	**ST-72**	1.20 m

UNE-EN ISO 7010



31306 ST-73
Hangings signs

Code	Ref.	Length
750130 I	**ST-73**	1.20 m

UNE-EN ISO 7010



31306 ST-74
Hangings signs

Code	Ref.	Length
750140 I	**ST-74**	1.20 m

UNE-EN ISO 7010



31306 ST-75
Hangings signs

Code	Ref.	Length
750150 I	**ST-75**	1.20 m

UNE-EN ISO 7010



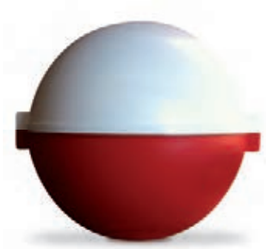
31306 VS-80
Extending barriers

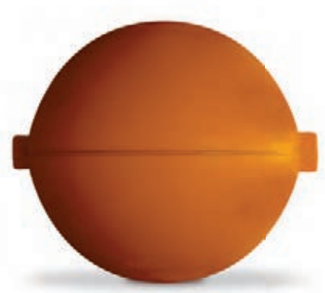
Iron extending barrier with 3.5 m reflective band.

Code	Ref.
755100	**VS-80**

SIGNS AND BEACONS

Spheres





Daytime signaling beacon for wiring to indicate and warn aircraft and to prevent accidents. The signaling beacon is made of polyethylene with fiberglass and has high resistance to UV rays. Designed with a low aerodynamic coefficient, it features accessories that allow for quick installation and adjustment, even from a helicopter. It can be installed on live cables, guard cables, and fiber optic cables.

31307 SAE-400
Beacon for cable

External dimensions: 400 mm in diameter.
For cables with a diameter of 9 to 30 mm.
Available colors: RED-WHITE / RED-RED.

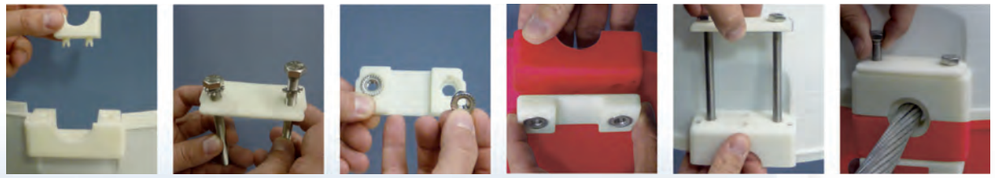
Code	Ref.	Ø	Weight
590100	**SAE-400**	400 mm	2.5 kg

31307 SAE-600
Beacon for cable

External dimensions: 600 mm in diameter.
For cables with a diameter of 9 to 30 mm.
Available colors: ORANGE.

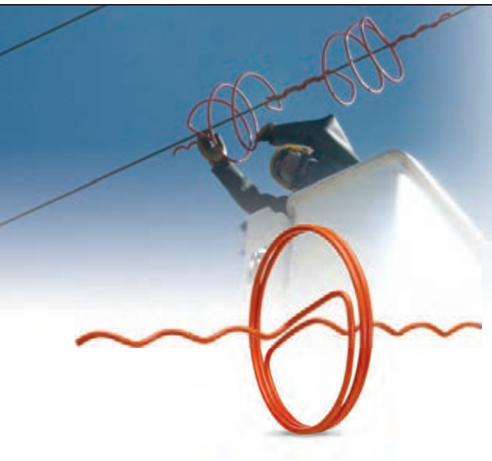
Code	Ref.	Ø	Weight
590104	**SAE-600**	600 mm	2.7 kg

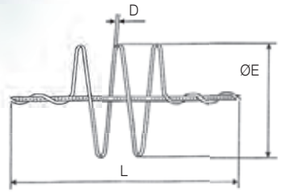
* Available upon request.





Spirals





31401 SPD
Bird anticollision devices

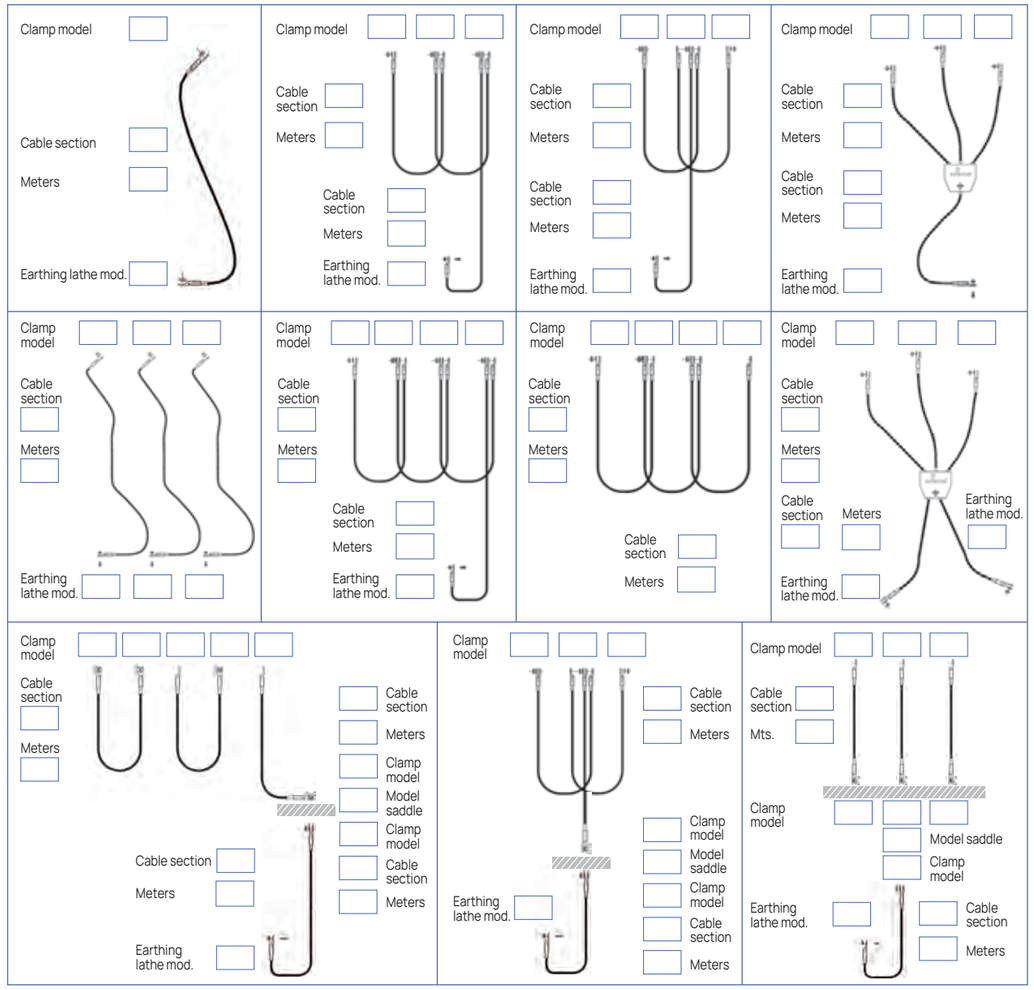
Double fixing spiral of orange color PVC, to signalize the overhead lines in passing areas od migratory birds.
Resistance UV rays.

Code	Ref.	UNE type	Cable diameter Min. (mm)	Cable diameter Max. (mm)	ØE (mm)	L (mm)	D (mm)
591120	SPD-7,00/9,50	LA-30 LA-40 LA-56	7.00	9.50	350	1000	12
591125	SPD-9,51/13,40	LA-78 LA-80	9.51	13.40			
591130	SPD-13,41/17,50	LA-110 LA-145	13.41	17.50			
591135	SPD-17,51/21,80	LA-180 LA-240 LA-280	17.51	21.80			
591140	SPD-42-7/9,5	LA-30 LA-40 LA-56	7.00	9.50	420		
591145	SPD-42-9,51/13,40	LA-78 LA-80	9.51	13.40			
591150	SPD-42-13,41/17,50	LA-110 LA-145	13.41	17.50			
591155	SPD-42-17,51/21,80	LA-180 LA-240 LA-280	17.51	21.80			



Equipment configuration schemes

A SCHEME EARTHING EQUIPMENTS



B AUXILIARY MATERIAL

	Un.	Model		Un.	Model
☐ Pole			☐ Earthing rod		
☐ Grip			☐ Spool		
☐ Plastic case			☐ Others		
☐ Nylon bag			☐ Others		

C CODING

ICC /Máx. ..... kA/1s Installation voltage ..... Entry date .....

Description .....



Tools

Multifunctional electrician scissors 514
Cable cutters..... 516
Crimping tools for non insulated terminals 518
Crimping tools for insulated and non-insulated ferrules.....522
Crimping tools for insulated terminals.....525
Crimping tool for solar connectors 525
Multipurpose tools 526
Stripping tools 527
Other tools.....529
Stripping tools for MV cables 530
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MULTIFUNCTIONAL ELECTRICIAN SCISSORS

Scissors with triple function, crimping, stripping and cutting



30112 TS-50

Premium professional scissors 3 in 1: crafted with stainless steel for super high resistance and durability. Featuring high-hardness blades and an anti-slip serrated edge for precise cutting. The handles are lightweight, robust, and made from impact-resistant plastic material, with embedded anti-slip ridges for a secure grip.

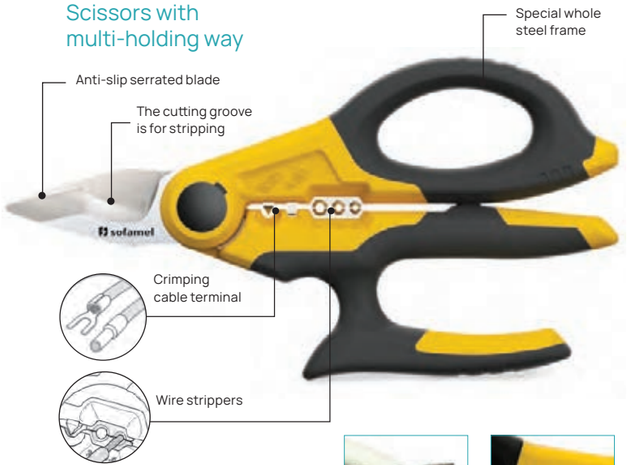
- 1 crimping function.
- 2 stripping functions.
- Cutting wire function.
- Anti-slip serrated blade.
- Special whole steel frame.
- Blades are whole frame.
- Scissor carrying case included. (belt-adjustable)



3in1 crimping stripping cutting

Code	Ref.	Max. cutting range	Crimping range	Stripping capacity between handles	Length	Weight
316000	TS-50	50 mm²	2.5-6 mm²	1.5/2.5 mm²	160 mm	0.15 kg

Scissors with multi-holding way



30112 TS-70

Premium professional scissors 3 in 1: crafted with the stainless steel for super high resistance and durability. Featuring high-hardness blades and an anti-slip serrated edge for precise cutting. Ergonomically-designed for comfortable, precise, and durable use. Extended capacity for stripping, crimping and cutting.

- 2 crimping functions.
- 3 stripping functions.
- Cutting wire function.
- Blades are whole frame.
- Handles crafted from impact-resistant plastic.
- Anti-slip ridges made of TPR.
- Ergonomic design.
- Scissor carrying case included. (belt-adjustable)



3in1 crimping stripping cutting

Code	Ref.	Max. cutting range	Crimping range	Stripping capacity between handles	Length	Weight
316001	TS-70	70 mm²	2.5-6 mm²	1.5/2.5/4 mm²	170 mm	0.18 kg

MULTIFUNCTIONAL ELECTRICIAN SCISSORS

Multi-function heavy duty electrician scissors, crimping, stripping and cutting



30112 TS-95

New Generation Professional Scissors: capable of cutting cables up to 95 mm². These scissors are equipped with a convenient wire stripping function compatible with cable sizes ranging from 0.34 mm² to 6 mm² (AWG 22-10). Crafted from high-quality, durable stainless steel, they are built to withstand the rigors of daily use.

- 2 crimping functions.
- 7 stripping functions.
- 3 cutting wire functions.
- Blades are whole frame.
- High Hardness Blades.
- Enhanced Grip and egronomic design.
- Scissor carrying case included. (belt-adjustable)

4in1 crimping stripping cutting



Code	Ref.	Max. cutting range	Crimping range	Stripping capacity between handles	Length	Weight
316002	TS-95	95 mm²	2.5-6 mm²	0.34-6 mm² (AWG 22-10)	204 mm	0.26 kg



30701 BP-7/18
Universal belt pouch

- Superior quality, strong and durable
- Sold separately



Code	Ref.	Dimensions
600165	BP-7/18	180 x 74 x 37 mm

For copper
and aluminium cables



20101 SF-21

For copper and aluminium cables
up to 16 mm².
Not for cutting steel or steel wire.

Code	Ref.	Length	Weight
380120	**SF-21**	160 mm	0.19 kg



20101 SF-30

For copper and aluminium cables
up to 35 mm².
Not for cutting steel or steel wire.

Code	Ref.	Length	Weight
380130	**SF-30**	210 mm	0.36 kg



20101 SF-31

For copper and aluminium cables
up to 50 mm².
Not for cutting steel or steel wire.

Code	Ref.	Length	Weight
380140	**SF-31**	235 mm	0.50 kg







For copper and aluminium cables









20101 SF-36A

- Light weight, compact structure, easy operation.
- Suitable for narrow space work.
- Clean and smooth cut without crushing and deformation.
- Innovative two-stage ratchet drive and high torque
- transmission, one hand or two hands easy operation.

Code	Ref.	Max. cutting range	Length	Weight
380010	**SF-36A**	≤Ø 36 mm 300 mm²	250 mm	0.61 kg

Single conductor cable, solid

Single conductor cable, fine and multiple strands

20101 SF-60A

- Light weight, compact structure, easy operation.
- Suitable for narrow space work.
- Clean and smooth cut without crushing and deformation
- Innovative two-stage ratchet drive and high torque
- transmission, one hand or two hands easy operation.

Code	Ref.	Max. cutting range	Length	Weight
380020	**SF-60A**	≤Ø 60 mm 500 mm²	310 mm	0.84 kg

Multiple conductor cable, multiple strands and solid

CABLE CUTTERS

For copper and aluminium conductor and communication cable





20101 SF-240

- For cutting copper and aluminium conductors as well as multiple stranded cables.
- Favourable transmission ratio due to double lever.
- Blade: high-grade chrome vanadium electric steel, forged, hardened, replaceable blades.
- Handles material: steel.

Code	Ref.	Max. cutting range	Length	Weight
380028	**SF-240**	≤Ø 35 mm 240 mm²	565 mm	2.15 kg

Single conductor cable, solid

Single conductor cable, fine and multiple strands

20101 SF-500

- For cutting copper and aluminium conductors as well as multiple stranded cables.
- Favourable transmission ratio due to double lever.
- Blade: high-grade chrome vanadium electric steel, forged, hardened, replaceable blades.
- Handles material: steel.

Code	Ref.	Max. cutting range	Length	Weight
380029	**SF-500**	≤Ø 55 mm 500 mm²	745 mm	4.48 kg

Multiple conductor cable, multiple strands and solid

CRIMPING TOOLS FOR NON INSULATED TERMINALS

Manual crimping tools by punching







New generation manual crimping tool, engineered for robust performance and unparalleled comfort. This tool features an ergonomic design that minimizes strain and maximizes efficiency, making it the ideal choice for professionals seeking superior crimping capabilities.

Ergonomic Handle: the tool's ergonomic handle provides a comfortable grip, reducing hand fatigue during extended use.

Robust Construction: built to withstand rigorous use, this crimping tool is crafted from high-quality materials, ensuring long-lasting durability.

Precision Punch Crimping: with advanced punch mechanism, specifically designed for tubular terminals made of copper and aluminum.

20102 SF-P70

- For copper and aluminum tubular terminals (type T, TL, TBE)
- from 6 to 70 mm².
- Adjustment by section screw.
- Steel alloy handles.
- Not suitable for solid bimetallic terminals.

Code	Ref.	Crimping range	Length	Weight
385015	**SF-P70**	6-70 mm²	462 mm	2.08 kg

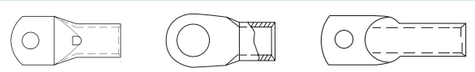
20102 SF-P150

- For copper and aluminum tubular terminals (type T, TL, TBE)
- from 10 to 150 mm².
- Adjustment by section screw.
- Steel alloy handles.

Not suitable for solid bimetallic terminals.

Code	Ref.	Crimping range	Length	Weight
385020	**SF-P150**	10-150 mm²	706 mm	3.34 kg

Copper tubular lugs



CRIMPING TOOLS FOR NON INSULATED TERMINALS

New generation hexagonal crimping tools

The crimping tools SF-70 and SF-120 are used for standard electrical connections.

The crimping dies are made from the most durable steel and feature a long service life, precise crimping diameter, and exceptional crimping effectiveness. Specially designed for our tubular terminals, series T, TL, TBE, among others.

















20102 SF-70

- For tubular copper terminals from 6 to 70 mm².
- Section adjustment by revolver system.
- Hexagonal compression.
- Not suitable for solid bimetallic terminals.

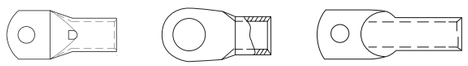
Code	Ref.	Crimping range	AWG	Length	Weight
380024	**SF-70**	6-70 mm²	10-2/0	430 mm	1.75 kg

20102 SF-120

- For tubular copper terminals from 10 to 120 mm².
- Section adjustment by revolver system.
- Hexagonal compression.
- Not suitable for solid bimetallic terminals.

Code	Ref.	Crimping range	AWG	Length	Weight
380025	**SF-120**	10-120 mm²	7-4/0	625 mm	3.2 kg

Copper and aluminium tubular lugs





CRIMPING TOOLS FOR NON INSULATED TERMINALS

Ratchet terminal crimping tools

The enhanced ratchet system requires less force.
All crucial components of our new crimping tools have undergone s pecial hardening, ensuring high efficiency and prolonged lifespan.

20102 SF-6D

- For cable lugs from 0.5 to 6 mm².
- Punching compression.
- Not suitable for solid bimetallic terminals.





Code	Ref.	Crimping range	AWG	Length	Weight
380021	**SF-6D**	0.5-6 mm²	20-10	180 mm	0.25 kg

20102 SF-16D

- For cable lugs from 2.5 to 16 mm².
- Punching compression.
- Not suitable for solid bimetallic terminals.





Code	Ref.	Crimping range	AWG	Length	Weight
380022	**SF-16D**	2.5-16 mm²	13-5	275 mm	0.44 kg

20102 SF-35D

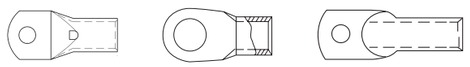
- For cable lugs from 10 to 35 mm².
- Punching compression.
- Not suitable for solid bimetallic terminals.





Code	Ref.	Crimping range	AWG	Length	Weight
380023	**SF-35D**	10-35 mm²	8-1/0	335 mm	0.65 kg

Copper and aluminium tubular lugs



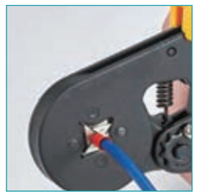


CRIMPING TOOLS FOR INSULATED AND NON-INSULATED FERRULES

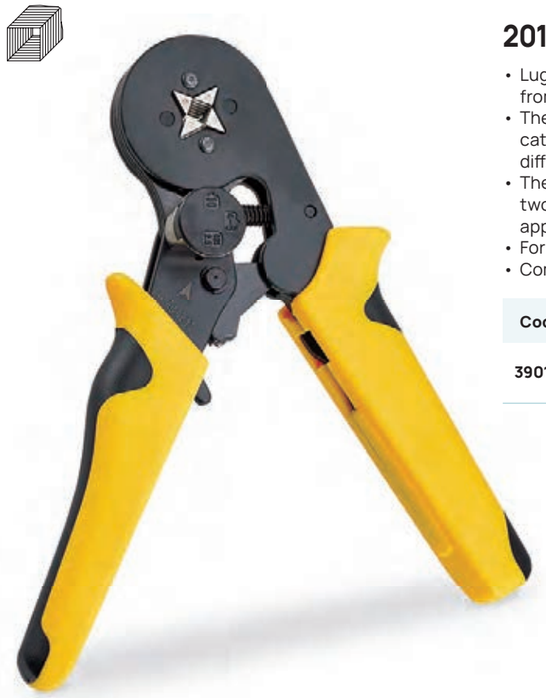
Mini-Type self-adjustable crimping plier

Insulated and non-insulated ferrules







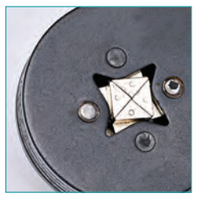


20104 SF-42

- Lugs are effortlessly inserted into the crimping pliers from the side.
- The adaptive crimping pliers accommodate lug specifications within the crimp range, eliminating the need to differentiate between terminal sizes.
- They are compatible with all single-line bushings and two-wire bushing lugs within the specified application range.
- For cord end terminals from 0,5 to 6 mm².
- Compression system by squared diaphragm.

Code	Ref.	Crimping range	AWG	Length	Weight
390125	**SF-42**	0.25-10 mm²	26-7	175 mm	0.4 kg





We've made significant improvements to our SF-42 tool.
The new SF-42 has a quick pressure adjustment knob. The pressure adjustment knob is divided into three pressure output files: 0.25-2.5 mm², 4-6 mm², 10 mm².
The number of times the crimping pliers has been used has been increased from 30,000 to 60,000 times after the adjustment knob is improved.

For the used of crimping of insulated and non-insulated bushing terminals. It is automatically adjusted according to the cross-sectional area of the terminals during crimping to facilitate the crimping operation of terminals of different sizes. After the bushings are crimped into a square shape It ensures the best contact surface and is DIN compliant.

When the crimping is not the same size, simply pull the adjustment knob to the corresponding specification and then reset.

CRIMPING TOOLS FOR INSULATED AND NON-INSULATED FERRULES

These crimping tools for ferrules, featuring punch compression, combine simplicity and convenience. Their durable and ergonomic design ensures reliable performance and a long lifespan, making them ideal for applications that require precision and efficiency.









20104 SF-55

- For insulated and non-insulated ferrules of 10, 16, 25, 35 and 50 mm².
- With ratchet device.
- Punching compression.

Code	Ref.	Crimping range	AWG	Length	Weight
390180	**SF-55**	10-50 mm²	8-1/0	320 mm	0.72 kg

20104 SF-6

- For insulated and non-insulated ferrules of 0.50 to 16 mm².

Code	Ref.	Crimping range	AWG	Length	Weight
390100	**SF-6**	0.5-16 mm²	22-6	220 mm	0.29 kg

CRIMPING TOOLS FOR INSULATED AND NON-INSULATED FERRULES

Compression using ratchet mechanism

Improvements have been implemented in the tool, including the dies, the vertex of the angular press, and the handle design, all aligned with human-centered engineering principles. These advanced improvements result in a more efficient user experience, simplifying operation and enhancing comfort.

20104 SF-10W

- For insulated and non-insulated ferrules from 0.25 to 10 mm².
- Compression using ratchet mechanism.







Code	Ref.	Crimping range	AWG	Length	Weight
380031	SF-10W	0.25-10 mm²	23-7	205 mm	0.48 kg







20104 SF-35W

- Insulated and non-insulated ferrules from 10 to 35 mm².
- Compression using ratchet mechanism.







Code	Ref.	Crimping range	AWG	Length	Weight
380032	SF-35W	10-35 mm²	5-2	205 mm	0.55 kg







CRIMPING TOOLS FOR INSULATED TERMINALS

The precise dies and the integral locking mechanism with self-release ensure high-quality crimping performance, even after multiple uses. The ergonomic design, with optimal center of gravity balance, the superior angular press, and the handle designed according to human engineering principles, make operation easier and more comfortable.

20104 SF-6J

- For insulated terminals from 0.5 to 6 mm².
- Compression using ratchet mechanism.







Code	Ref.	Crimping range	AWG	Length	Weight
380034	SF-6J	0.5-6 mm²	20-10	205 mm	0.48 kg





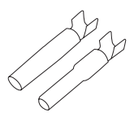


Crimping tool for solar connectors

20103 SF-MC4

- Crimping tool for solar connectors to 2.5-6 mm² cables for photovoltaic installations.







Code	Ref.	Crimping range	Length	Weight
380033	sf-MC4	2.5-6 mm²	205 mm	0.49 kg







MULTIPURPOSE TOOLS

Multipurpose tool 5 in 1





20104 SF-5

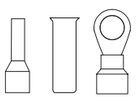
The 5-in-1 multipurpose tool offers versatility by combining several functions and optimizes space in the toolbox. Increases efficiency by reducing changeover times between tools and improves productivity. Its ergonomic design provides comfort, reducing fatigue and improving work precision. Its compact design makes it easy to transport for professionals on the go. Made with high quality materials, it guarantees durability and long-lasting, reliable performance.

Multipurpose tool 5 in1:
- Wire cutter.
- Crimping insultated terminals from 1,5 to 6,0 mm².
- Crimping non insulated terminals from 1,5 to 6,0 mm².
- Wire stripper from 0,75 to 6,0 mm².
- Iron screw cutter from M2.6 to M5.

Code	Ref.	Crimping range	Length	Weight
395100	**SF-5**	1.5-6 mm²	220 mm	0.48 kg

Multipurpose tool
that includes 5 sets of dies





20104 SF-C

The SF-C includes five sets of interchangeable dies. This versatility makes it an all-in-one solution for various crimping tasks, offering efficiency and convenience in a single device.

Multipurpose tool that includes 5 sets of dies:
- Insulated terminals from 0.5-6 mm².
- Cord end terminals from 0.25-10 mm².
- Cord end terminals from 10-35 mm².
- Twin cord end terminals from 2X(0.5-6 mm²).
- Non-insulated terminals from 0.5-10 mm².

Supplied with a carrying bag and screwdriver to facilitate changing dies.



Code	Ref.	Crimping range	Length	Weight
380035	**SF-C**	According to the die	243 mm	0.75 kg

STRIPPING TOOLS

For stripping the plastic
or rubber insulation











20105 SF-D10

- For stripping the plastic or rubber insulation of the single, multiple cables and wires of 0.02-6 mm².
- With wire cutter for copper and aluminum wires, multiple strand up. to 6 mm².
- No damaging of the conductor core, long lifetim.

Code	Ref.	Stripping range	Length	Weight
380026	**SF-D10**	0.02-6 mm²	190 mm	0.15 kg



For stripping the plastic
or rubber insulation

20105 PL-6

- Stripping diameter can be adjusted automatically for different wire cross sections.
- Precise blade design without damaging the conductor cores.
- During stripping, the wire is held firm by clamping jaws.
- With adjustable length stop, with a spring returns the stripper to the starting position, long lifetime.

Code	Ref.	Stripping range	Length	Weight
380030	**PL-6**	0.25-2.5 mm²	170 mm	0.25 kg

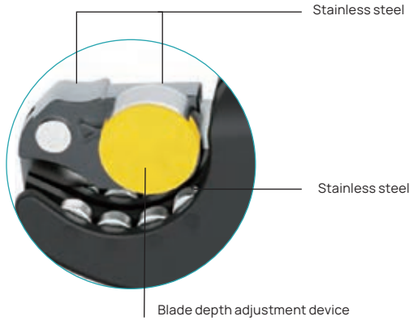




STRIPPING TOOLS

For stripping the plastic or rubber insulation







20105 SF-D30

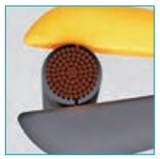
- Minimizes the risk of injury while stripping cables, ensuring a secure operation every time.
- The straightforward design allows for quick and easy use.
- Designed with ergonomics in mind, the handle provides a comfortable and firm grip, reducing hand strain during prolonged use.
- For stripping the plastic or rubber insulation of the single, multiple cables and wires of 10-300 mm².
- No damaging of the conductor core, long lifetime.

Code	Ref.	Stripping range	Length	Weight
380027	**SF-D30**	Ø 8-30 mm / 10-300 mm²	176 mm	0.13 kg

Code	Model
380037	Spare blade for SF-D30







Wire stripper





20105 SF-38

- Designed for fast, safe and accurate stripping of PE, PVC, rubber and other materials. Ideal for fibre optic cables, providing accurate stripping on multi-fibre cables.
- Suitable for cable diameters from 4 to 25 mm.
- Allows rotary or longitudinal cuts along the length of the cable for end stripping.
- Spiral cut facilitates removal of tougher jackets.
- Spring-loaded bracket secures the cable firmly to the blade for a controlled cut.
- Ergonomic design for ease of use and storage.
- Long lasting blade for easy depth adjustment.

Code	Ref.	Stripping range	Length	Weight
400110	**SF-38**	4-25 mm	136 mm	0.13 kg

OTHER TOOLS

Cable ties









20106 SF-39

- The SF-39 tensioning tool is designed to efficiently tension and cut plastic or metal ties. It offers consistent use over many cycles and is equipped with padded non-slip handles for increased comfort and control.

Code	Ref.	Tie width	Length	Weight
405100	**SF-39**	2.4-9.0 mm	195 mm	0.3 kg

Multifunctional cross wrench



20106 SF-LC

- Versatile industrial tool, ideal for opening electrical panels, gas boxes, cabinet doors, toolboxes, and other locking systems. Also suitable for screwing and unscrewing (Phillips PH2 and flat PL6.5). Perfect for electricians, building maintenance personnel, utility workers, among others.

- Material: High-quality zinc alloy.
- Robust structure for prolonged use.
- Compact and easy-to-carry design.

Code	Ref.	A	B	A	B	A	B	A	B	C	Length	Weight
		A B		A B		A 45°		A B C				
20106001	**SF-LC**	14 mm	8 mm	12 mm	6 mm	14 mm	9 mm	14 mm	9 mm	5.5 mm	72 mm	0.1 kg

20105 UCS-25-LV/MV

- Universal wire stripper for external BT/MT insulation.
- Include replaceable blade.
- Include tool holder case to attach to the belt.

Not suitable for working under tension.





Applicable for:


Communication cable


LV cable (PLV insulation)


MV cable (PVC constructed)


MV cable (PLV insulation)

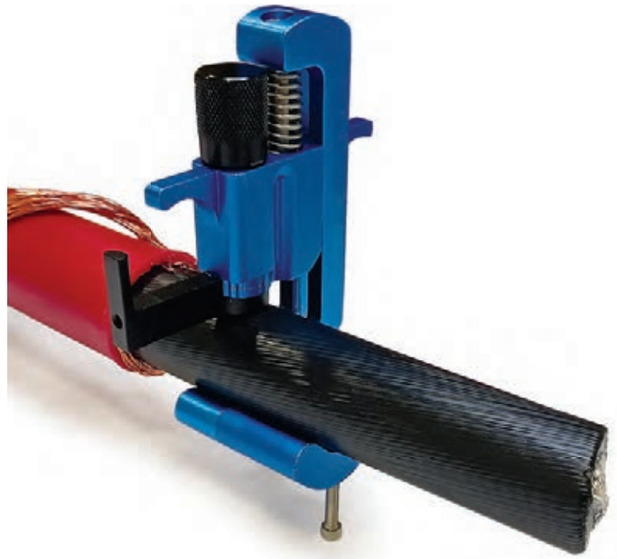
Code	Ref.	Cable Ø	Cutting thickness	Length	Weight
400006	UCS-25-LV/MV	≥25 mm	0-5 mm	160 mm	0.2 kg

Code	Ref.	Description
400007	SB UCS-25	Replacement blade



Includes a tool belt pouch designed to keep the UCS-25 always within reach, making work easier and improving efficiency. Superior quality, sturdy, and durable.

STRIPPING TOOLS FOR MV CABLES



Cable stripper for strippable semi-conductor layer

20105 CSSL-40

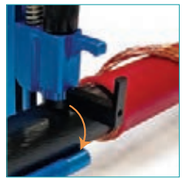
- Application: To strip 10/11 kV or 20/22 kV Strippable Semiconductor.
- Adjustable cutting depth, max. 2 mm, adjustable range of rotary knob is 0-0.9 mm, each adjustable depth is 0.1 mm.
- Applicable cable Ø: 16-41 mm.
- Blade min. hardness: 52 HRC.
- Include a pliers and tool holder briefcase.

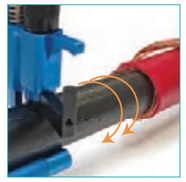




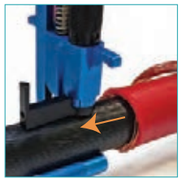
Peeling process
There are two methods for stripping the semiconducting layer:

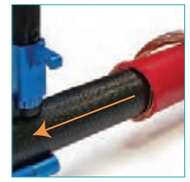
1. Spiral cutting

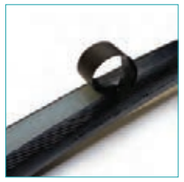




2. Longitudinal cutting







Code	Ref.	Layer Ø	Cutting thickness	Tool dimensions	Briefcase dimensions	Tool Weight	Briefcase Weight
400008	CSSL-40	16-41 mm	5 mm	120x60x50 mm	240x210x70 mm	0.21 kg	0.43 kg

Code	Ref.	Model	Hardness
400009	CSSL-40	Spare blade for CSSL-40	52 HRC

Cable stripping tool for non-removable semiconductor layer



20105 CSNL-54

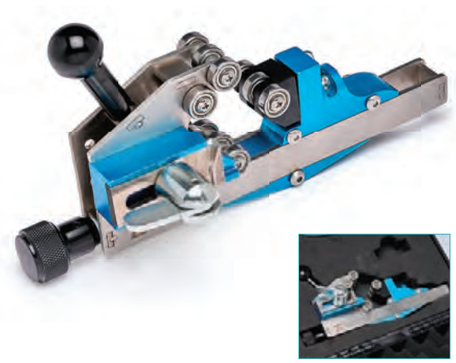
Tool for stripping non-removable semiconductor layers of 10, 20 and 35 kV power cables (Ø of the cable: 16-51 mm). It has a small radius of rotation (maximum only 90 mm). It can be operated in narrow space and operated on a cable with more than three cores.
The bearing are flexible and easy to rotate, making it easy for the operator to strip the cable.

- Applied to 35 kV non-strippable semi-conductor.
- With chamfer on blade, leaving chamfer on semi-conductor.
- One-way stripping.
- Can be fixed tightly on cable.
- Offers stripping depths ranging from 0 to 1.5 mm.
- Compatible with cable diameters ranging from 30 mm to 54 mm.
- Ensures a secure fixation.
- Lightweight design.
- Include tool holder briefcase.

Code	Ref.	Cable Ø	Stripping depth	Weight	Dimensions (mm)
400010	**CSNL-54**	30-54 mm	0-1.5 mm	0.6 kg	180x95x47

Code	Ref.	Model
400011	**SB CSNL-54**	Spare blade for CSNL-54

Cable stripper for primary insulation



20105 CSML-54

Suitable for stripping main insulation of 10 kV, 20 kV and 35 kV cables. Features both slice and rotary cutting functions, with adjustable blade angles for versatility.

- Equipped with a replaceable blade for extended usage.
- Adjustable stripping depth ranging from 0 to 15 mm.
- Compatible with cable diameters ranging from 15 mm to 54 mm.
- Lightweight design.
- Include tool holder briefcase.

Code	Ref.	Cable Ø	Stripping depth	Weight	Dimensions (mm)
400024	**CSML-54**	15-54 mm	0-15 mm	0.7 kg	180x95x47

Code	Ref.	Model
400025	**SB CSML-54**	Spare blade for CSML-54

STRIPPING TOOLS FOR MV CABLES

Cable stripper for primary insulation



20105 CSML-25/240

The tool is designed to remove the insulation of ethylene propylene rubber (G7) or cross-linked polypropylene (XLPE) from 10/11 kV or 20/22 kV cables with the following cross-sectional areas: 25, 35, 50, 70, 95, 120, 150, 185, and 240 mm².

- Include tool holder briefcase.



Code	Ref.	Working range	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
400023	**CSML-25/240**	20 kV	234×122×46 mm	440x360x125 mm	0.35 kg (handle + a peeling head)	0.6 kg





20105 CSML-H

Cable stripper for main layer
(Handle only)

The tool is designed to remove the insulation of ethylene propylene rubber (G7) or cross-linked polypropylene (XLPE) from 10/11 kV or 20/22 kV cables with the following cross-sectional areas: 25, 35, 50, 70, 95, 120, 150, 185, and 240 mm².

Code	Ref.	Working range	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
400013	**CSML-H**	20 kV	234×122×46 mm	440x360x125 mm	0.35 kg (handle + a peeling head)	0.6 kg

Code	Ref.	Working range	Use with CSML	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
400014	**CSML-I 25**	20 kV	25 mm²	234×122×46 mm	440x360x125 mm	0.35 kg (handle + a peeling head)	0.6 kg
400015	**CSML-I 35**		35 mm²				
400016	**CSML-I 50**		50 mm²				
400017	**CSML-I 70**		70 mm²				
400018	**CSML-I 95**		95 mm²				
400019	**CSML-I 120**		120 mm²				
400020	**CSML-I 150**		150 mm²				
400021	**CSML-I 185**		185 mm²				
400022	**CSML-I240**		240 mm²				

Tool for chamfering primary insulation



20105 TCML-60

The TCML-60 tool is vital to ensure cable safety, efficiency and durability, as well as to comply with electrical safety regulations. Application range: Ø 15 - 60 mm.
Recommended Use: Suitable for all types of primary insulation. Designed for precise chamfered cuts (3 x 45°) on medium voltage (MV) cables.
Secure positioning on the cable with a clamp system.
Equipped with PTFE plates for smooth sliding on the cable, eliminating the need for silicone paste.
Replaceable blade for prolonged use.
Maximum rotation diameter: 200 mm.
Note: Not intended for pencilling.

Included in the Set:
- TCML-60: Tool for chamfered cuts of primary insulation.
- Tool holder briefcase.

Code	Ref.	Cable Ø	Weight	Dimensions (mm)
400027	**TCML-60**	15-54 mm	0.39 kg	180x95x47

STRIPPING TOOLS FOR MV CABLES



20105 TCA-76

Universal chain cutter
for cable armor of Ø 20-76 mm

Chain cutter, made of steel. For stripping the armor of cables Ø 20-76 mm. Cuts very effectively, with just a quarter turn for a complete cut.

Code	Ref.	Weight	Dimensions (mm)
400005	**TCA-76**	0.58 kg	250x80x22

KIT 1 MV-SP. Stripping tools
MV cable with strippable semiconductor layer



20105 KIT 1 MV-SP

This kit of tools is designed for stripping medium voltage (MV) cables with a strippable semiconducting layer. Its operation is straightforward and efficient, ensuring proper cable preparation for electrical installation.

The standard kit includes:

- 400006 universal cable stripper for external insulation LV/MV.
- 400013 cable stripper for main layer.
- 400008 cable stripper for strippable semiconductor layer.
- 316000 scissors TS-50.
- 400016 insert CSML 50 mm².
- 400018 insert CSML 95 mm².
- 400020 insert CSML 150 mm².
- 400022 insert CSML 240 mm².
- 400029 grease tube.
- 410115 insulated knife 190 mm.
- 570140 hydroalcoholic towelette.
- High quality case with foam.

The case can accommodate up to eight inserts, with a selectable cross-section ranging from 25 mm² to 240 mm².

Code	Ref.	Weight	Dimensions (mm)
400030	**KIT 1 MV-SP**	3.5 kg	465x355x145



STRIPPING TOOLS FOR MV CABLES

KIT 2 MV-SN. Stripping tools
MV Cable with non-strippable semiconductor layer



20105 KIT 2 MV-SN

This kit of tools is designed for stripping medium voltage (MV) cables with a non-strippable semiconducting layer. Its operation is straightforward and efficient, ensuring proper cable preparation for electrical installation.

The standard kit includes:

- 400006 universal cable stripper for external insulation LV/MV.
- 400010 cable stripper for non-strippable semiconductor layer.
- 400024 cable stripper for main layer Ø 54 mm.
- 570140 hydroalcoholic towelette.
- 400029 grease tube.
- High quality case with foam.

Code	Ref.	Weight	Dimensions (mm)
400031	**KIT 2 MV-SN**	3.5 kg	465x355x145



KIT 3 MV-A-SP. Stripping tools
MV armoured cables with strippable semiconductor layer



20105 KIT 3 MV-A-SP

This toolkit ensures high-quality work, facilitating the process of preparing cables for subsequent connection and use.

The standard kit includes:

- 400006 universal cable stripper for external BT/MT insulation.
- 400008 wire stripper for peelable semiconducting layer Ø 16-41 mm.
- 400024 wire stripper for main layer Ø 54 mm.
- 400027 tool for chamfering the main layer Ø 15-60 mm.
- 570140 hydroalcoholic wipe.
- 400029 grease tube.
- 400005 universal chain cutter armed cable Ø 20-76 mm.
- High quality suitcase with foam.

Code	Ref.	Weight	Dimensions (mm)
400032	**KIT 3 MV-A-SP**	4.0 kg	465x355x145



HYDRAULIC HAND-TOOLS







Hydraulic crimping

20201 EC-5

- The buckle-type design offers a blend of lightness and strength for quick installation and disassembly. Its rotating crimping head adapts to different angles effortlessly.
- A dual-speed hydraulic system with a built-in safety valve ensures fast, precise crimping. Automatic pressure release upon reaching preset levels ensures quality, speed, and operator safety.
- An external manual pressure relief valve allows for easy pressure release.
- The hydraulic valve, made from special steel, guarantees durability and longevity.
- Small size allows working in reduced spaces.
- Include tool holder briefcase.

Code	Ref.	Crimping force	Nominal Pressure	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
411000	**EC-5**	50 kN	60 MPa	380x130x65 mm	530x420x130 mm	2.7 kg	3.0 kg

Crimping range

Copper lugs	10-240 mm²
Thin-walled Al lugs	16-150 mm²
Crimpis (CRC, CRS, CRA)	up to 70 mm²

Available dies

HD5 copper and aluminium cable lugs/butt-connectors and pin terminals by hexagonal compression
Copper: up to 240 mm²
Aluminium: up to 150 mm²

CDC5 copper and aluminium compression clamps by elliptical/circular compression
Up to 70 mm²







Hydraulic crimping

20201 EC-13C

- The C-shaped opening design enables swift crimping, making it easy to handle and position.
- 180° rotary head with quick opening.
- Incorporates audible safety valve that limit the maximum working force to 130 kN.
- Two speeds: one fast to approach and one slow to crimp.
- The handle is designed with self-locking, to ensure that the tool is in a completely un-pressurized state after use, which improves the service life.
- The hydraulic valve is made of special steel, sturdy and durable.
- Include tool holder briefcase.



Code	Ref.	Crimping force	Nominal Pressure	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
411001	**EC-13C**	130 kN	70 MPa	630x135x71 mm	875x340x130 mm	6.9 kg	3.5 kg

Crimping range

Copper lugs and splices	up to 400 mm²
Aluminium lugs and splices	up to 300 mm²
H type, C type clamps and bimetallic lugs (hexagonal crimp only)	up to 240 mm²

Available dies

HD13 copper and aluminium cable lugs and butt-connectors by hexagonal compression
Copper: up to 400 mm²
Aluminium: up to 300 mm²

CD13 copper and aluminium Compression clamps by circular compression
Copper: Main and tap up to 185 mm²
Aluminium: Main up to 300 mm² and tap au to 70 mm²

HYDRAULIC HAND-TOOLS







Hydraulic crimping

20201 EC-13U

- Universal head for all types of crimping, including deep stepped crimping.
- 180° rotary head with quick opening.
- Incorporates audible safety valve that limits the maximum working force to 130 kN.
- Two speeds: one fast to approach and one slow to crimp.
- Include tool holder briefcase.



The EC-13U tool comes with the "C" adapter for hexagonal crimping.
The rest of the adapters and dies are available separately.

Includes adapter to convert "H" head to "C" head.



Code	Ref.	Crimping force	Nominal Pressure	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
411002	**EC-13U**	130 kN	70 MPa	587x72x144 mm	875x340x130 mm	5.84 kg	3.5 kg

Crimping range

Copper lugs and splices	up to 400 mm²	**Bimetallic lugs (Stepped deep punching)**	up to 240 mm²
Aluminium lugs and splices	up to 300 mm²	**H type, C type clamps**	up to 240 mm²

Available dies

HD13 copper and aluminium cable lugs and butt-connectors by hexagonal compression
Copper: up to 400 mm²
Aluminium: up to 300 mm²

CD13 copper and aluminium compression clamps by circular compression
Copper: up to 185 mm²
Aluminium: main up to 300 mm² and tap up to 70 mm²



MP-L/PP bimetallic cable lugs by deep punching compression
Up to 240 mm²



MP-S/PP aluminium multi voltage joints by deep punching compression
Up to 240 mm²

Note: choose the adapter according to section, to be used together with the corresponding punch and die.

HYDRAULIC HAND-TOOLS





Hydraulic cutting

Suitable for cutting ACSR cable, copper, aluminum, steel wire, and steel rope up to Ø 45 mm

20201 ET-45

- Latch head with two blades design.
- Two stage pumping action.
- Automatic retraction when the maximum pressure is reached.
- Heated treated special steel for the blades.
- Light and compact structure.
- Cutting head with snap closure and blade guide, rotates 270°.
- Quick feed with double hydraulic cylinder.
- Automatic pressure safety valve.
- Manual return in any position.
- Include tool holder briefcase.



Code	Ref.	Nominal Pressure	Maximum cutting force	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
411004	**ET-45**	70 MPa	90 kN	646x152x75 mm	875x340x130 mm	6.25 kg	3.5 kg

Cutting range

ACSR, copper and aluminium	With a diameter less than 45 mm (≤1000 mm²)	**Steel strand**	150 mm² Ø 20 mm

Spare blades



Fixed cutting blade
Weight: 120 g



Moveable cutting blade
Weight: 100 g

ELECTROHYDRAULIC TOOLS



Battery-powered hydraulic crimping tool

20202 EBC-5

- 180 degree swivel head.
- 2-speed hydraulic system.
- Independently designed oil return system can safety retract without electricity.
- The trigger switch and return button are separately and activated by only one hand.
- Built-in chip, with memory function, can stop automatically when crimping is completed, realize intelligent crimping.
- The crimping cycle data is automatically stored on a memory card for transfer to PC via USB cable interface (Bluetooth available separately).
- OLED display provides battery capacity, operational and service crimping cycled, bluetooth information, etc.
- Automatic retraction when the maximum pressure is reached.
- LED lightning for work in dark environments.
- Rubber grip to have low noise and vibration.
- Include tool holder briefcase.



Battery type	Battery changer
18 V 4.0 Ah, Li-ion	ASC 55



Code	Ref.	Nominal Pressure	Maximum crimping force	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
412000	**EBC-5**	60 MPa	50 kN	325x313x94 mm	670x470x135 mm	4.6 kg (incl. battery)	4.5 kg

Crimping range

Copper lugs	10-240 mm²
Thin-walled Al lugs	16-150 mm²
Crimpis (CRC, CRS, CRA)	up to 70 mm²

Available dies



HD5 copper and aluminium cable lugs/butt-connectors and pin terminals by hexagonal compression
Copper: up to 240 mm²
Aluminium: up to 150 mm²



CDC5 copper and aluminium compression clamps by elliptical/circular compression
Up to 70 mm²



Battery-powered hydraulic crimping tool

20202 EBC-13C

- C-shaped head that rotates 180 degrees.
- 2-speed hydraulic system.
- Independently designed oil return system can safety react without electricity.
- The trigger switch and return button are separately and activated by only one hand.
- Built-in chip, with memory function, can stop automatically when crimping is completed, realize intelligent crimping.
- Crimping cycle data is automatically stored on a memory card for transfer to PC by USB interface.
- OLED display provides information on battery capacity, crimping cycles, and service cycles.
- Automatic retraction when the maximum pressure is reached.
- LED lightning for work in dark environments.
- Rubber grip to have low noise and minimal vibration.
- Include tool holder briefcase.





Battery type	Battery changer
18 V 4.0 Ah, Li-ion	ASC 55

Code	Ref.	Nominal Pressure	Maximum crimping force	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
412001	**EBC-13C**	70 MPa	130 kN	385×325×95 mm	670x470x135 mm	7.7 kg (incl. battery)	4.5 kg

Crimping range

Copper terminals and sleeves	up to 400 mm²
Aluminium terminals and sleeves	up to 300 mm²

Available dies

HD13 copper and aluminium cable lugs and butt-connectors by hexagonal compression
Copper: up to 400 mm²
Aluminium: up to 300 mm²
Bimetallic: up to 240 mm²

CD13 copper and aluminium compression clamps by circular compression
Copper: main up to 185 mm² and tap up to 185 mm²
Aluminium: main up to 300 mm² and tap up to 70 mm²



ELECTROHYDRAULIC TOOLS



Battery operated insulated hydraulic crimping tool 22 kV

20202 EBC-13LW

- Ideal for operations in proximity to power sources, including substations, medium voltage lines, catenary systems, and other similar environments.
- The C-type head allows for crimping at various angles, adapting to diverse crimping needs.
- Equipped with both automatic and mechanical oil return systems (oil return without electricity), ensuring the safety of the equipment during power failures without affecting subsequent use.
- Enables data transmission between the tool and a host computer via Bluetooth or USB data cable connection.
- OLED screen, combined with touch buttons, provides real-time display of various tool states, enhancing operational intelligence.
- The housing contains rubber in its composition to minimize noise and vibrations.
- High-intensity LED lamp beads cover the entire crimping area, ensuring visibility for night work.
- Include tool holder briefcase.





Battery type	Battery changer
18 V 4.0 Ah, Li-ion	ASC 55

Code	Ref.	Nominal Pressure	Maximum crimping force	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
412002	**EBC-13LW**	70 MPa	130 kN	390x325x94 mm	670x470x135 mm	7.8 kg (incl. battery)	4.5 kg

Crimping range

Copper cable terminals and splicing sleeves	400 mm²
Aluminium cable terminals and splicing sleeves	300 mm²

Available dies

HD13 copper and aluminium cable lugs and butt-connectors by hexagonal compression
Copper: up to 400 mm²
Aluminium: up to 300 mm²
Bimetallic: up to 240 mm²

CD13 copper and aluminium compression clamps by circular compression
Copper: main up to 185 mm² and tap up to 185 mm²
Aluminium: main up to 300 mm² and tap up to 70 mm²











New generation battery
operated hydraulic crimping tool

20202 EBC-13U

- Universal crimping head for all types of crimping, including deep staggered punch crimping.
- 180 degree swivel head.
- 2-speed hydraulic system.
- Independently designed oil return system can safety retract without electricity.
- The trigger switch and return button are separately and activated by only one hand.
- Built-in chip, with memory function, can stop automatically when crimping is completed, realize intelligent crimping.
- Crimping cycle data is automatically stored on a memory card for transfer to PC by USB interface or bluetooth.
- OLED display provides battery capacity, operational and service crimping cycled, bluetooth information, etc.
- Automatic retraction when the maximum pressure is reached.
- LED lightning for work in dark environments.
- Rubber grip to have low noise and minimal vibration.
- Include tool holder briefcase.





Includes AD-13U/13C adapter
to convert "H" head to "C" head.

Battery type	Battery changer
18 V 4.0 Ah, Li-ion	ASC 55

Code	Ref.	Nominal Pressure	Maximum crimping force	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
412003	**EBC-13U**	70 MPa	130 kN	363x334x95 mm	670x470x135 mm	6.7 kg (incl. battery)	4.5 kg

Crimping range

Copper lugs and splices	400 mm²	**Bimetallic lugs (Stepped deep punching)**	240 mm²
Aluminium lugs and splices	300 mm²	**H type, C type clamps**	240 mm²

Available dies



HD13 copper and aluminium cable lugs and butt-connectors by hexagnal compression
Copper: up to 400 mm²
Aluminium: up to 300 mm²
Bimetallic: up to 240 mm²



CD13 copper and aluminium compression clamps by circular compression
Copper: Up to 185 mm²
Aluminium: Main up to 300 mm² and tap up to 70 mm²



MP-L/PP bimetallic cable lugs by deep punching compression
Up to 240 mm²



MP-S/PP aluminium multi voltage joints by deep punching compression
Up to 240 mm²

Note: choose the adapter according to section, to be used together with the corresponding punch and die.



ELECTROHYDRAULIC TOOLS



Battery-powered hydraulic
cutting tool

20202 EBT-45

- The head is adjustable to facilitate cutting at various angles.The independently designed oil return system ensures safe retraction without reliance on electricity.
- A two-speed hydraulic system guarantees swift and high-quality cutting.
- Post-cutting, the section surface remains perfect without loose strands.
- Equipped with a built-in high-pressure safety valve, which automatically releases pressure when it reaches maximum levels, safeguarding both tools and operators.
- LED lighting enhances convenience and safety during cutting operations.
- Extra comfortable handling.
- Rubber grip to have low noise and minimal vibration.
- Include tool holder briefcase.





Battery type	Battery changer
18 V 4.0 Ah, Li-ion	ASC 55

Code	Ref.	Nominal Pressure	Maximum cutting force	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
412030	**EBT-45**	70 MPa	130 kN	460x325x95 mm	670x470x135 mm	8 kg (incl. battery)	4.5 kg

Cutting range

ACSR, copper and aluminium	With a diameter less than 45 mm (≤1000mm²)
Steel strand	150 mm² Ø 20 mm

Spare blades



Fixed cutting blade
Weight: 120 g



Moveable cutting blade
Weight: 100 g





Battery-powered hydraulic crimping tool, mini series

20202 EBC-6M

- Suitable for crimping operations in confined spaces, such as electrical cabinets, narrow boxes, and similar environments.
- Very lightweight and easy to handle, this tool ensures maximum efficiency and comfort.
- Flip top style for easy access to the fittings.
- Head rotates 360-degree.
- Automatic pressure relief.
- External LED display, easy to read and record usage information.
- High performance, high capacity 18 V lithium battery with power display, equipped with fast charger.
- Two LED working lights help work easier in dark area.
- PP plastic housing and carrying case, sturdy and durable.
- Include tool holder briefcase.





Battery type	Battery changer
18 V 4.0 Ah, Li-ion	ASC 55

Code	Ref.	Nominal Pressure	Maximum crimping force	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
412004	**EBC-6M**	55 MPa	62 kN	415x125x90 mm	530x420x130 mm	2.99 kg (incl. battery)	4.5 kg

Crimping range

Copper tubular terminals and sleeves	up to 300 mm²
Aluminum tubular terminals and sleeves	up to 185 mm²



MINI BATTERY POWERED CRIMPING TOOLS



Battery-powered hydraulic crimping tool, mini series, without dies

20202 EBC-6SM

- No need to change dies; Crimping is carried out with the self-adjusting punch, which automatically adapts to the section of the cable used.
- Suitable for pressing operations in narrow spaces.
- Lightweight, fast pressing speed, easy to operate. All data can be easily read through the smart display. Connection to the computer via USB for convenient management of various parameters.
- The closed head is fully rotatable.
- High-performance, high-capacity 18 V lithium battery with power display, equipped with Metabo brand fast charger.
- Two LED work lights help you work easier in dark areas.
- PP plastic shell, durable.
- Includes tool case.





Battery type	Battery changer
18 V 4.0 Ah, Li-ion	ASC 55

Code	Ref.	Nominal Pressure	Maximum crimping force	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
412007	**EBC-6SM**	55 MPa	60 kN	418x121x90 mm	530x420x130 mm	2.8 kg	4.5 kg

Crimping range

Copper terminal	10-300 mm²
Aluminum terminal	16-240 mm²



BATTERY WIRE RATCHET CUTTER



Battery wire
ratchet cutter

20202 EBT-54

- It cuts the cable in seconds, without any effort, which optimizes time and significantly reduces the operator's working hours.
- Ensures a precise and clean cut that preserves the internal conductors, ensuring the integrity and functionality of the cable.
- Designed for class 1, 2 and 5 copper and aluminum cables; armored cable and ACSR cable.
- The blade, made of forged steel alloy and with a Specialized heat treatment, withstands prolonged and demanding use.
- With a rational, lightweight and portable design, it offers efficient functionality and effortless operation.
- Includes one Makita battery of 5.0 Ah and a fast charger of the same brand.
- Includes tool case.





Battery type	Charger power supply
DC 18 V 5.0 Ah 54 Wh Lition-ion	AC 220 V 50-60 Hz

Code	Ref.	Nominal Pressure	Maximum cutting force	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
412006	**EBT-54**	54 MPa	62 kN	340x190x110 mm	450x400x150 mm	2.6 kg	1.8 kg

Cutting range

Copper cables, aluminum cables, armored cables, and ACSR cables	Up to 54 mm, ≤560 mm²



HYDRAULIC HEADS AND PUMPS







Hydraulic head 13T

20203 CH-13C

- Hydraulic C type head with quick connection to a hydraulic drive with a maximum pressure of 700 bar.
- Made of specially treated sealed steel.
- Interchangeable dies.
- Include tool holder briefcase.

Available dies



HD13 Copper and aluminium cable lugs and butt-connectors by hexagonal compression
Up to 400 mm² copper
Up to 300 mm² aluminium
Up to 240 mm² bimetallic

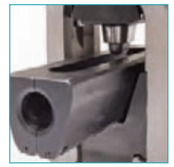


CD13 Copper and aluminium Compression clamps by circular compression
Copper: Main up to 185 mm² and tap up to 185 mm²
Aluminium: Main up to 300 mm² and tap up to 70 mm²

Code	Ref.	Crimping force	Rated pressure	Pump dimensions	Briefcase dimensions	Pump weight	Briefcase weight
413001	**CH-13C**	130 kN	700 bar	289x119x72 mm	450x370x120 mm	5.5 kg	2.5 kg







Hydraulic head 13T

20203 CH-13U

- Universal crimping head for all types of crimping, including deep stepped crimping.
- Made of specially treated steel.
- Flip-top head: Simplifies the positioning and insertion of the dies.
- Quick connection with lock.
- Comes with adapter for hexagonal crimping.
- Include tool holder briefcase.

Available dies



HD13 Copper and aluminium cable lugs and butt-connectors by hexagonal compression
Up to 400 mm² copper, up to 300 mm² aluminium
Up to 240 mm² aluminium



CD13 Copper and aluminium Compression clamps by circular compression
Copper: Up to 185 mm²
Aluminium: Main up to 300 mm² and tap up to 70 mm²



MP-L/PP Bimetallic cable lugs by deep punching compression
Up to 240 mm²



MP-S/PP Aluminium multi voltage joints by deep punching compression
Up to 240 mm²

Code	Ref.	Crimping force	Rated pressure	Pump dimensions	Briefcase dimensions	Pump weight	Briefcase weight
413000	**CH-13U**	130 kN	700 bar	248x93x76 mm	450x370x120 mm	3.5 kg	2.5 kg







Universal hydraulic head 20T

20203 CH-20P

- This 20-ton universal hydraulic head is designed for all types of crimping applications, including hexagonal, deep indent, and circular crimping.
- It accommodates all sections up to 630 mm² with the use of different adapters, ensuring versatile compatibility.
- Despite its powerful capabilities, the head is lightweight, easy to handle, and of exceptional quality.
- It comes with a convenient carrying case for easy transport and storage.

Available dies

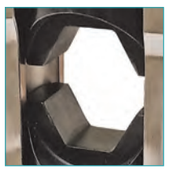
Hexagonal compression on copper or aluminum conductors, under various regulations or specifications from 10 mm² to 630 mm².

Circular compression in copper and aluminum clamps, like CRC, CRA and CRS, all ranges.
Placed in round, to obtain a compact round shape.

Deep stepped punching, in bimetallic terminals and sleeves up to 630 mm².

Code	Ref.	Crimping force	Rated pressure	Pump dimensions	Briefcase dimensions	Pump weight	Briefcase weight
413003	**CH-20P**	200 kN	700 bar	305x116x95 mm	450x370x120 mm	6 kg	2.5 kg







Hydraulic head 25T

20203 CH-25

- U-type crimping head, sturdy and durable.
- Pin-type for easy access to the fitting.
- Quick coupler for easy disassembly.
- Powered by a single-acting hydraulic pump.
- Light weight, suitable for overhead line work.
- Includes tool case.

Available dies



HD25 Hexagonal dies
Up to 630 mm² Cu.

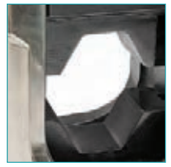
Adapter for transitioning to small sections 13T



Code	Ref.	Crimping force	Rated pressure	Pump dimensions	Pump weight
413002	**CH-25**	250 kN	700 bar	360x130x130 mm	5 kg

HYDRAULIC HEADS AND PUMPS







Hydraulic head 45T

20203 CH-45

- U-type crimping head, sturdy and durable.
- Pin-type crimping head for easy access to the fitting.
- Quick coupler for easy disassembly.
- Powered by single acting hydraulic.
- Flat base, keep vertical level.
- Includes tool case.

Available dies



HD45 Hexagonal dies
Up to 800 mm² Cu.

Code	Ref.	Crimping force	Rated pressure	Pump dimensions	Pump weight
413004	CH-45	450 kN	700 bar	265x140x115 mm	11 kg

* Available upon request





Hydraulic head 60T

20203 CH-60

- Ideal for ACSR overhead lines, splice sleeves, and clamps for power transmission lines from 110 kV to 220 kV.
- The head features a fixed upper die seat that can be quickly rotated and opened, facilitating crimping operations on mid-span and end fittings.
- Equipped with a quick coupler for easy disassembly.
- Operates on a single-acting hydraulic system.
- Includes a steel carrying case.

Available dies



HD60 Hexagonal dies
Cu/Al up to Ø 60 mm
Stell up to Ø 26 mm

Crimping range

Copper and aluminium terminals	Ø 60 mm
Steel terminals	Ø 26 mm

Code	Ref.	Crimping force	Rated pressure	Pump dimensions	Briefcase dimensions	Pump weight	Briefcase weight
413005	**CH-60**	600 kN	700 bar	270x160x320 mm	295x220x350 mm	25 kg	4 kg

* Available upon request



Hydraulic head 60T

20203 CH-60A

- Ideal for ACSR overhead lines, splicing sleeves, and strain clamps for 110 kV to 220 kV power transmission lines.
- The head features a fixed upper die seat that can be rotated and quickly opened, facilitating mid-span and end crimping operations.
- Equipped with a quick coupler for easy and swift disassembly.
- Operated by a single-acting hydraulic system.
- Include steel case.

Available dies



HD60 Hexagonal dies
Cu/Al up to Ø 60 mm
Stell up to Ø 26 mm

Crimping range

Copper and aluminium terminals	Ø 60 mm
Steel terminals	Ø 26 mm

Code	Ref.	Crimping force	Rated pressure	Pump dimensions	Briefcase dimensions	Pump weight	Briefcase weight
413008	**CH-60A**	600 kN	700 bar	240x220x450 mm	490x240x300 mm	20 kg	4 kg

* Available upon request





Hydraulic head 100T

20203 CH-100

- Double acting hydraulic head, reducing piston reset time.
- Quick connector for easy disassembly.
- Ideal for ACSR overhead lines, tensile clamps for 110 kV and 200 kV underground cable sleeves.
- Includes steel case.

Available dies

HD100
Cu/Al up to Ø 76 mm
Stell up to Ø 36 mm

Crimping range

Copper and aluminium terminals	Ø 76 mm
Steel terminals	Ø 36 mm

Code	Ref.	Crimping force	Rated pressure	Pump dimensions	Pump weight
413006	**CH-100**	1000 kN	700 bar	280x180x365 mm	31 kg

* Available upon request

HYDRAULIC HEADS AND PUMPS



Battery-operated hydraulic tool

20202 EB-7

The EB-7 is a hydraulic pump designed for crimping terminals and sleeves, standing out for its superior handling and time savings. This tool provides efficiency and ease of use for all crimping needs. Ideal for 13T heads.
Head not included.



Code	Ref.	Rated pressure	Pump dimensions	Briefcase dimensions	Pump weight	Briefcase weight
412015	**EB-7**	700 bar	240x334x95 mm (hose not included)	670x470x135 mm	4.4 kg	4.5 kg



20204 BH-700

Hydraulic pedal pump designed to operate hydraulic heads for both cutting and crimping.

- Includes a 3-meter high-pressure flexible hose with automatic lock.
- Automatic double-acting device.
- Operates with hydraulic heads at 700 bar pressure.
- Robust and aesthetic design.
- Includes a tool holder briefcase for easy transport and storage.



20204 BH-700M

- Same configuration as BH-700.
- Includes a pressure gauge.
- Robust and aesthetic design.
- Includes a tool holder briefcase for easy transport and storage.



Code	Ref.	Rated pressure	Pump dimensions	Briefcase dimensions	Pump weight	Briefcase weight
415000	**BH-700**	700 bar	560x180x205 mm (hose not included)	705x200x215 mm	8.8 kg	5 kg
415001	**BH-700M**					

Portable hydraulic pump operated by battery



20204 BHM-7

Portable next-generation electro-hydraulic pump, powered by a 24 V 5.0 Ah Li-Ion battery for extended operation.

A full charge allows approximately 150 crimps of 120 mm² copper terminals.

Technical features:
- 1h fast charging
- Remaining battery power displayed after each crimp.
- Pressure release button to release pressure at any time.
- Utomatic shut-off and pressure retention when reaching the maximum level.
- For heads up to 100T.

Including:
- 24 V 5.0 Ah Battery
- Charger
- Wired controller
- 2 m hose with quick couplers
- Carrying bagpack

Code	Ref.	Rated pressure	Voltage	Li-ion battery protection	Dimensions	Weight
415004	**BHM-7**	70 MPa / 700 bar	24 V	24 V / 5.0 Ah	391x335x162 mm	9.2 kg

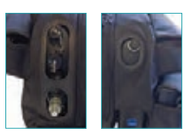
* Available upon request



20204 BHM-7A

Enhanced Intelligent Functions:
- It includes an advanced crimping management system, configurable to monitor, transmit data, and track the work process in detail.
- An integrated pressure sensor monitors the process in real time, ensuring accuracy and efficiency.
- Data storage capacity supports up to 200,000 crimping records.
- The wireless remote control module allows operation at long distances, up to 50 meters without obstacles, providing flexibility and convenience.
- The integrated GPS positioning module offers real-time location tracking and information transmission via a 4G network, enhancing management and security.
- The temperature detection and alarm system monitors on the LCD panel and alerts the user with a specific pattern in case of failure, ensuring operational safety.





Carrying backpack for the BHM-7 and BHM-7A pumps

Including:
- 24 V, 5.0 Ah Battery
- Charger
- Wired controller
- 2 m hose with quick couplers
- Carrying bagpack
- Remote controller

Code	Ref.	Rated pressure	Voltage	Li-ion battery protection	Dimensions	Weight
415002	**BHM-7A**	70 MPa / 700 bar	24 V	24 V / 5.0 Ah	391x335x162 mm	9.2 kg

* Available upon request

HYDRAULIC HEADS AND PUMPS

Remote cutting unit



20203 KH-120LV

The KH-120LV Insulated Kit is suitable for cutting low, medium, and high voltage cables that may be accidentally energized (up to 220 kV), in order to prevent accidents during repair and maintenance work. It is equipped with a 10-meter long high-capacity dielectric flexible hose. The 24 V / 5.0 Ah lithium battery ensures extended operating time.

Including:
- Insulated hydraulic pump
- Hydraulic cutting head
- Insulated hose of 10 meters
- Tool bag
- Remote controller

Safety
An integrated safety valve automatically releases pressure when it reaches the maximum level, protecting both tools and operators.

Features:
a. Automatic shutdown after cutting.
b. Cutting operation reminder.
c. Pump body includes an oil return button for manual control without electricity.
The hydraulic oil used is insulating hydraulic oil.

Code	Ref.	Cutting range	Rated pressure	Reservoir capacity	Oil circuit	Flow rate	Dielectric strenght	Oil hose lenght
430000	**KH-120LV**	Ø 120 mm	70 MPa / 700 bar	1.0 L	Single action	0,6 L / min	220 kV	10 m

Dimension of pump	Power supply	Control mode	Carrying method
390x163x323 mm	**24 V 5,0 Ah**	The remote control range reaches 50 meters without obstacles.	a. One hended b. On the shoulder c. Backpack

* Available upon request

Cutting head with insulated hose of 10 meters



20203 CT-120M

The CT-120M head is suitable for cutting live cables (up to 220 kV) to prevent accidents during repair and maintenance work. It is equipped with a 10-meter long high-capacity dielectric flexible hose.

Including:
- Hydraulic cutting head
- Special insulating hose
- Tool bag







Code	Ref.	Cutting range	Operating voltage	Insulation hose length	Cutting head size	Weight
430001	**CT-120M**	Ø 120 mm	220 kV	10 m	556x185 mm	9.6 kg

* Available upon request

HYDRAULIC HEADS AND PUMPS

Double-acting Electrohydraulic pump



20204 BGD-8

Equipped with a pressure gauge to monitor working pressure at all times.
Automatically switches between high and low pressure as per job requirements to enhance efficiency.
Compatible with a wide range of hydraulic heads.

Including:
- Multifunctional operation handle
- 2 m hose with quick couplers

Bluetooth transmission
4G module transmit data through the network

Code	Ref.	Rated pressure	High pressure flow	Low pressure flow	Reservoir capacity	Dimension of Hydraulic pump	Hydraulic pump Weight
415003	**BGD-8**	80 MPa	1.2 L/min.	5-8 L/min.	≥2.3 L	582x372x395 mm	44 kg

* Available upon request

Accessories



20205 Insulated hoses

Insulated hoses are used to connect hydraulic cutting or crimping heads to the hydraulic pump, ensuring safe distances and keeping the operator out of harm's way. These hoses provide essential protection and reliability for various hydraulic applications.

Code	Ref.	Length
413050	**Insulated hoses**	5 m
413100	**Insulated hoses**	10 m
413150	**Insulated hoses**	15 m

* Available upon request



30901 Earthing lead

Earthing lead featuring a lathe at one end and a reinforced terminal at the other. Specifically designed for grounding the cutting or crimping head, this essential component ensures a secure connection. Is connected to an earthing rod. With copper cable 25 mm² and 6 meters long.

Code	Ref.	Section	Length
667060	**P-TR12-02506**	25 mm²	6 m

ACCESSORIES



30911 Hexagonal grounding rod

The ER-1Z hexagonal earthing rod is designed to be easily driven into the ground, with a pointed end that facilitates effortless insertion. Made of galvanized F-111 material, it ensures durability and reliable grounding performance.

Code	Ref.	Length
667150	**ER-1Z**	1 m





30911 Suitcase with wheels

Ideal for transporting hydraulic kits or earthing and short-circuiting devices. It ensures easy and convenient mobility, providing a reliable solution for safely moving equipment to various job sites..

Code	Ref.	Dimensions
620061	**SOFABOX**	855x577x400 mm



Folding steel leg
Allow horizontal storage of the suitcase.





Folding handles
The suitcase has handles on the top, bottom, and one side to make transport easy at all times.



Robust wheels
The robust design of the wheels allows comfortable movement even on difficult-to-access terrain.

INSULATED TOOL KITS



30701 BEC
Compact tool bag

- **Content:**

Code	Description:
410005	Insulated universal plier 180 mm
410046	Insulated flathead screwdriver 3 x 100 mm
410047	Insulated flathead screwdriver 4 x 100 mm
410051	Insulated "Phillips" screwdriver 1 x 80 mm
316000	TS-50 Scissors

Insulated tools 1000 V
(according to EN 60900, IEC 900 VDE 0682-201)

Code	Version	Dimensions
600171	BEC-5 tool bag with equipment	180 x 270 x 50 mm
600170	BEC-V tool bag without equipment	



30121 KBT-1000/19

- **Content:**

Code	Description:
410005	Insulated universal plier 180 mm
410015	Insulated needle nose plier 200 mm
410025	Insulated wire-cutting plier 180 mm
410115	Insulated knife 180 mm
410046	Insulated flathead screwdriver 3 x 100 mm
410047	Insulated flathead screwdriver 4 x 100 mm
410048	Insulated flathead screwdriver 5.5 x 125 mm
410050	Insulated "Phillips" screwdriver 0 x 60 mm
410051	Insulated "Phillips" screwdriver 1 x 80 mm
410052	Insulated "Phillips" screwdriver 2 x 175 mm
410096	Insulated open-ended spanner 10 mm
410203	Insulated open-ended spanner 12 mm
410097	Insulated open-ended spanner 13 mm
410098	Insulated open-ended spanner 14 mm
410100	Insulated open-ended spanner 17 mm
410101	Insulated open-ended spanner 19 mm
410105	Insulated wire-cutting plier 230 mm
635360	Multimeter CTL-1000
600162	Protective case with pouches for organising tools OHB-350

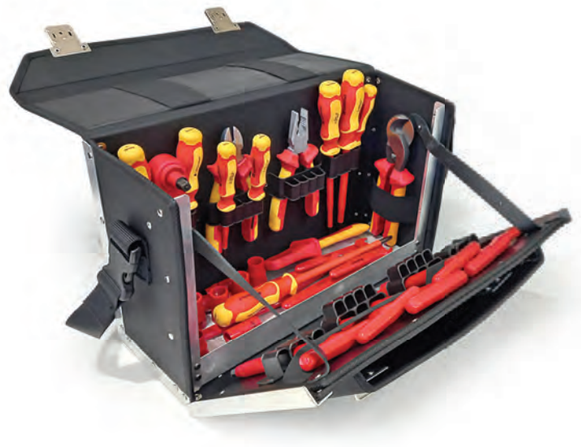


1000 V insulated tools and voltage meters
(according to EN 60900, IEC 900 VDE 0682-201)

Code	Version	Dimensions
410200	KBT-1000/19	200 x 350 x 50 mm
600162	OHB-350 Briefcase without tools	







30121 KT-1000/37

- **Con tent:**

Code	Description:
410005	Insulated universal plier 180 mm
410015	Insulated needle nose plier 200 mm
410025	Insulated wire-cutting plier 180 mm
410115	Insulated knife 190 mm
410046	Insulated flathead screwdriver 3 x 100 mm
410047	Insulated flathead screwdriver 4 x 100 mm
410048	Insulated flathead screwdriver 5.5 x 125 mm
410049	Insulated flathead screwdriver 8 x 175 mm
410050	Insulated "Phillips" screwdriver 0 x 60 mm
410051	Insulated "Phillips" screwdriver 1 x 80 mm
410052	Insulated "Phillips" screwdriver 2 x 100 mm
410053	Insulated "Phillips" screwdriver 3 x 150 mm
410056	Insulated 4 mm hex key
410057	Insulated 5 mm hex key
410058	Insulated 6 mm hex key
410059	Insulated 8 mm hex key
410060	Insulated 9 mm hex key
410061	Insulated 10 mm hex key
410065	Ratchet wrench 3/8"
410075	Insulated long extension 3/8" 300 mm
410086	Insulated 8 mm socket spanner 3/8"
410088	Insulated 10 mm socket spanner 3/8"
410083	Insulated 11 mm socket spanner 3/8"
410001	Insulated 12 mm socket spanner 3/8"
410089	Insulated 13 mm socket spanner 3/8"
410090	Insulated 14 mm socket spanner 3/8"
410093	Insulated 19 mm socket spanner 3/8"
410094	Insulated 17 mm socket spanner 3/8"
410096	Insulated open-ended spanner 10 mm
410203	Insulated open-ended spanner 12 mm
410097	Insulated open-ended spanner 13 mm
410098	Insulated open-ended spanner 14 mm
410100	Insulated open-ended spanner 17 mm
410101	Insulated open-ended spanner 19 mm
410105	Insulated wire-cutting plier 230 mm
600161	Small front-opening tool case MAF-430

Code	Version	Dimensions
410220	KT-1000/37	300 x 430 x 200 mm
600161	MAF-430 case without tools	

1000 V insulated tools
(according to EN 60900, IEC 900 VDE 0682-201)





30121 KTS-1000/56

Code	Version	Dimensions
410210	KTS-1000/56	280 x 430 x 250 mm
600160	BKE-1680D M bag without tools	



- **Content:**

Code	Description:
410005	Insulated universal plier 180 mm
410015	Insulated needle nose plier 200 mm
410025	Insulated wire-cutting plier 180 mm
410035	Insulated knife 180 mm
410046	Insulated flathead screwdriver 3 x 100 mm
410047	Insulated flathead screwdriver 4 x 100 mm
410048	Insulated flathead screwdriver 5.5 x 125 mm
410049	Insulated flathead screwdriver 8 x 175 mm
410051	Insulated "Phillips" screwdriver 1 x 80 mm
410052	Insulated "Phillips" screwdriver 2 x 100 mm
410053	Insulated "Phillips" screwdriver 3 x 150 mm
410105	Insulated wire-cutting plier 230 mm
410072	Insulated 3 mm Allen key
410073	Insulated 4 mm Allen key
410074	Insulated 6 mm Allen key
410081	Insulated adjustable spanner 250 mm
410082	Insulated pliers wrench 250 mm
410065	Ratchet wrench 3/8"
410075	Insulated long extension 3/8" 300 mm
410086	Insulated 8 mm socket spanner 3/8"
410088	Insulated 10 mm socket spanner 3/8"
410001	Insulated 12 mm socket spanner 3/8"
410089	Insulated 13 mm socket spanner 3/8"
410090	Insulated 14 mm socket spanner 3/8"
410093	Insulated 19 mm socket spanner 3/8"
410094	Insulated 17 mm socket spanner 3/8"
410201	Insulated open-ended spanner 8 mm
410096	Insulated open-ended spanner 10 mm
410202	Insulated open-ended spanner 11 mm
410203	Insulated open-ended spanner 12 mm
410097	Insulated open-ended spanner 13 mm
410098	Insulated open-ended spanner 14 mm
410100	Insulated open-ended spanner 17 mm
410101	Insulated open-ended spanner 19 mm
565099	White helmet SP-181
570120	Face shield SP-182
600151	Holdall bag BA-0.6 x 10
585001	Insulating blanket class 0 MA0-1010 1x1 m
595114	6 Insulated clamps for blankets 50 mm 1 kV AC / 1.5 kV DC
595200	5 Insulating cable caps class 0 6-16 mm²
530160	Dielectric glove SG-50 T10
540114	Leather over glove SG-C
635360	Multimeter CTL-1000
595010	Black insulating tape 10 m 0.15 mm PVC
595030	Yellow/green insulating tape 20 m 0.15 mm PVC
595040	Blue insulating tape 10 m 0.15 mm PVC
595060	Grey insulating tape 10 m 0.15 mm PVC
595070	Brown insulating tape 10 m 0.15 mm PVC
595080	Red insulating tape 10 m 0.15 mm PVC
600160	Bag for insulated tools and electrical kits BKE-1680D M

1000 V insulated tools
(according to EN 60900, IEC 900 VDE 0682-201)





1000V / 22
IEC 60900

30102 PH
Insulated "Phillips" screwdriver

Code	Ref.	mm	mm
410050	**PH0x60**	0	60
410051	**PH1x80**	1	80
410052	**PH2x100**	2	100
410053	**PH3x150**	3	150



1000V / 22
IEC 60900

30104 PL
Insulated flathead screwdriver

Code	Ref.	mm	mm	mm
410041	**PL2.5x75**	2,5	0,4	75
410046	**PL3x100**	3	0,5	100
410042	**PL3.5x100**	3,5	0,6	100
410047	**PL4x100**	4	0,8	100
410048	**PL5.5x125**	5,5	1	125
410043	**PL6.5x150**	6,5	1,2	150
410049	**PL8x175**	8	1,2	175



1000V / 22
IEC 60900

30103 POZ
Insulated "Pozidriv" screwdriver

Code	Ref.	mm	mm
410110	**POZ-0X60**	0	60
410111	**POZ-1X75**	1	75
410112	**POZ-2X100**	2	100
410113	**POZ-3X150**	3	150



1000V / 22
IEC 60900

30107 TX
Insulated "TORX" screwdriver

Code	Ref.	mm	mm
410130	**TX-10X80**	10	60
410131	**TX-15X80**	15	75
410132	**TX-20X100**	20	75
410133	**TX-25X100**	25	75
410134	**TX-30X110**	30	100



1000V / 22
IEC 60900

30111 Screwdriver set
Insulated flathead and "Phillips" screwdrivers

- **Content:**

Flathead Screwdrivers:

410046 Insulated flathead screwdriver PL3x100 mm
410047 Insulated flathead screwdriver PL4x100 mm
410048 Insulated flathead screwdriver PL5.5x125 mm
410049 Insulated flathead screwdriver PL8x175 mm

"Phillips" Screwdrivers:

410050 Insulated "Phillips" screwdriver PH0x3x60 mm
410051 Insulated "Phillips" screwdriver PH1x4.5x80 mm
410052 Insulated "Phillips" screwdriver PH2x6x175 mm
410053 Insulated "Phillips" screwdriver PH3x8x200 mm

Code	Ref.
410045	**Set of insulated flathead and "Phillips" screwdrivers**

Pliers



1000V / 22
IEC 60900

30110 PFC-200
Insulated bent needle nose plier - 200 mm

Code	Ref.	Length
410021	**Plier PFC-200**	200 mm

- For gripping, bending, cutting, and manipulating wires or cables in confined or hard-to-reach spaces.
- Its curved tip design allows for access to difficult angles and provides greater precision when working with small or delicate components.



1000V / 22
IEC 60900

30110 AU
Insulated universal plier

Code	Ref.	Length
410005	**Plier AU-180**	180 mm
410010	**Plier AU-200**	200 mm

- With gripping zones for flat and round materials, very versatile.
- For cutting soft and hard wire.
- Head with extra flat shape and laterally rounded.
- Made of tempered steel and chrome finish.

PLIERS



1000V / 22
IEC 60900

30110 AC-160
Insulated wire-cutting plier - 160 mm

Code	Ref.	Capacity	Length
410026	Plier AC-160	Ø 1.6 mm	160 mm

- To cut cable, nails, metal mesh and plates.
- Suitable for cutting copper and aluminum cables.
- Its compact design allows for use in tight spaces.



1000V / 22
IEC 60900

30110 AC-200
Insulated wire-cutting plier - 200 mm

Code	Ref.	Capacity	Length
410025	Plier AC-200	Ø 1.6 mm	200 mm

- To cut cable, nails, metal mesh and plates.
- Suitable for cutting copper and aluminum cables.
- Its compact design allows for use in tight spaces.



1000V / 22
IEC 60900

30110 PF
Insulated needle nose plier - 200 mm

Code	Ref.	Length
410015	Plier PF-200	200 mm

- Stretched gripping surface.
- For holding cables, thin parts or small components size.
- To access narrow places that are difficult to access.



1000V / 22
IEC 60900

30110 AC-230
Insulated wire-cutting plier - 230 mm

Code	Ref.	Length
410105	Plier AC-230	230 mm

- Suitable for cutting copper and aluminum cables.
- Ergonomic bi-material handles for a comfortable grip.
- It allows repetitive operations to be carried out, without causing fatigue.

Adjustable spanner



1000V / 22
IEC 60900

30117 LAJ
Adjustable spanner - 250 mm

Code	Ref.	Length
410081	LAJ-250	250 mm

- Excellent performance and long service life.
- It has a manual adjustment screw for a fast and precise adjustment of the width of the mouth.
- For fixing elements of all sizes, thanks to its mobile jaw.

PLIERS WRENCH



1000V / 22
IEC 60900

30110 APL
Pliers wrench - 250 mm

Code	Ref.	Length
410082	APL-250	250 mm

- Large opening capacity, to hold rods/tubes.
- Easy access to nuts and connections.
- High resistance to torsion and bending.

Knives



1000V / 22
IEC 60900

30113 CA-180
Insulated flat-blade knife - 180 mm

Code	Ref.	Length
410035	Knife CA-180	180 mm

- Blade specially adapted to cut the outer sheath of cables without damaging the inner conductors.
- With hook blade.
- Double edged blade.
- Comfortable dual component handle.



1000V / 22
IEC 60900

30113 CA-190
Insulated knife - 190 mm

Code	Ref.	Length
410115	Knife CA-190	190 mm

- Suitable for cutting cables of various sizes and types without damaging the internal wires.
- Ideal for use in electrical panels and other installations where active circuits are handled.
- The handle is ergonomically designed for a comfortable grip, reducing fatigue during prolonged use.
- The knife blade is durable and sharp, allowing for precise and long-lasting cuts. It is partially coated and the handle is insulated, which prevents the risk of accidental short circuits and enhances safety while working with electrical components.

SPANNERS

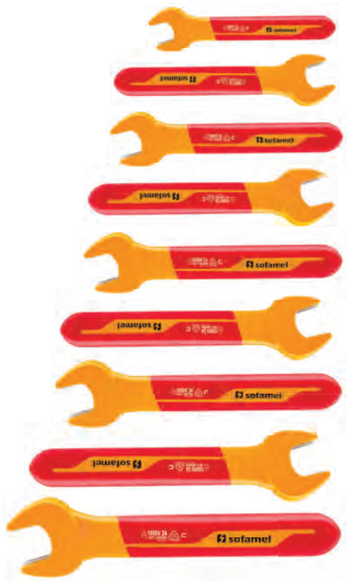


1000V / 22
IEC 60900

30117 LF
Insulated open-ended spanner

Code	Ref.	Spanner	Length
410201	**Spanner LF-8**	8	80 mm
410096	**Spanner LF-10**	10	100 mm
410202	**Spanner LF-11**	11	110 mm
410203	**Spanner LF-12**	12	120 mm
410097	**Spanner LF-13**	13	130 mm
410098	**Spanner LF-14**	14	140 mm
410099	**Spanner LF-16**	16	160 mm
410100	**Spanner LF-17**	17	170 mm
410101	**Spanner LF-19**	19	190 mm

- The LF insulated open-end wrenches are essential tools for professionals working in the electrical sector, offering safety and efficiency in various applications related to the installation and maintenance of electrical systems.
- Angled head to facilitate tightening.
- Material: hardened steel.
- Insulation material: PP/TPR.



1000V / 22
IEC 60900

30117 Set of insulated open-ended spanners
Insulated fixed wrench set

Code	Ref.
410095	**Set of insulated open-ended spanners**

- **Contents:**
  8 mm open-ended spanner - 80 mm long.
  10 mm open-ended spanner - 100 mm long.
  11 mm open-ended spanner - 110 mm long.
  12 mm open-ended spanner - 120 mm long.
  13 mm open-ended spanner - 130 mm long.
  14 mm open-ended spanner - 140 mm long.
  15 mm open-ended spanner - 150 mm long.
  16 mm open-ended spanner - 160 mm long.
  17 mm open-ended spanner - 170 mm long.
  19 mm open-ended spanner - 190 mm long.

KEYS



1000V / 22
IEC 60900

30115 T HEX
Insulated T shaped hex key

Code	Ref.	Key	Dimensions
410056	**Key T HEX - 4**	4	90 x 200 mm
410057	**Key T HEX - 5**	5	
410058	**Key T HEX - 6**	6	
410059	**Key T HEX - 8**	8	
410060	**Key T HEX - 9**	9	
410061	**Key T HEX - 10**	10	

- T-handle HEX wrenches are designed for tasks that require efficient and comfortable force application, making them ideal for jobs that need precise torque application.
- Material: hardened steel.
- Insulation material: PP/TPR.



1000V / 22
IEC 60900

30115 LVT-210
Insulated T-handle wrench 3/8"

Code	Ref.	Dimensions
410102	**LVT-210**	158 x 210 mm

- Ergonomic T-shaped design for better grip and force application.
- Quick-release function.
- Suitable for electrical work and use on live cables or installations.
- Material: Chrome vanadium steel.
- Finish: Matte chrome.



1000V / 22
IEC 60900

30111 Kit LHT
Set of insulated T shaped hex keys

Code	Ref.
410055	**Set of insulated T shaped hex keys**

- **Contents:**
  410056 4 mm T shaped hex key - 90 x 200 mm
  410057 5 mm T shaped hex key - 90 x 200 mm
  410058 6 mm T shaped hex key - 90 x 200 mm
  410059 8 mm T shaped hex key - 90 x 200 mm
  410060 9 mm T shaped hex key - 90 x 200 mm
  410061 10 mm T shaped hex key - 90 x 200 mm

KEYS



1000V / 22
IEC 60900

30119 LA90
L-shaped hex key

Code	Ref.	Length
410072	**Insulated key LA90-3**	3 mm
410073	**Insulated key LA90-4**	4 mm
410074	**Insulated key LA90-6**	6 mm

- Allen wrenches LA90 are used in various applications, especially where direct access to hexagonal screws is limited or uncomfortable. The 90º design allows access to screws located in tight or hard-to-reach spaces where a straight wrench would not be practical.
- Material: hardened steel.
- Insulation material: PP/TPR.



1000V / 22
IEC 60900

30116 EL
Insulated extension for 3/8" ratchet

Code	Ref.	Length
410240	**Extension EL-3/8**	125 mm
410075	**Extension EL-3/8**	300 mm

- Used to access nuts and bolts located in hard-to-reach places.
- Particularly useful in electrical panels and distribution boxes where access may be limited.
- Material: hardened steel.
- Insulation material: PP/TPR.



1000V / 22
IEC 60900

30116 LC-3/8
Insulated ratchet wrench for 3/8" ratchet

Code	Ref.	Dimensions
410065	**Insulated key LC-3/8**	3/8"

- Facilitates work in confined spaces where continuous back-and-forth movement is required.
- The ratchet mechanism allows for fast and efficient work by eliminating the need to constantly reposition the tool.
- The handle design provides a comfortable and secure grip, reducing fatigue during extended use.
- Material: hardened steel.
- Insulation material: PP/TPR.

SOCKETS



1000V / 22
IEC 60900

30116 Set of insulated 3/8" sockets
Hexagon/female sockets

Code	Ref.
410085	Set of insulated 3/8" sockets Hexagon/female sockets

- **Contents:**
  8 mm insulated socket 3/8"
  10 mm insulated socket 3/8"
  11 mm insulated socket 3/8"
  12 mm insulated socket 3/8"
  13 mm insulated socket 3/8"
  14 mm insulated socket 3/8"
  17 mm insulated socket 3/8"
  19 mm insulated socket 3/8"

Insulated collar on each socket to prevent arcing.



1000V / 22
IEC 60900

30116 LVA
Insulated Allen sockets 3/8"

Code	Ref.	⬡	mm	mm
410106	**LVA-4**	4	22,8	77
410107	**LVA-5**	5		
410108	**LVA-6**	6		
410109	**LVA-8**	8		

These tools are designed to work with electrical systems of up to 1000 V, offering additional protection against electric shocks.

- Standards: DIN 7422, DIN 3120.
- Material: Chrome vanadium steel.
- Finish: Matte chrome.



Electrical fixing and fasteners

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Cable Pathway Solutions

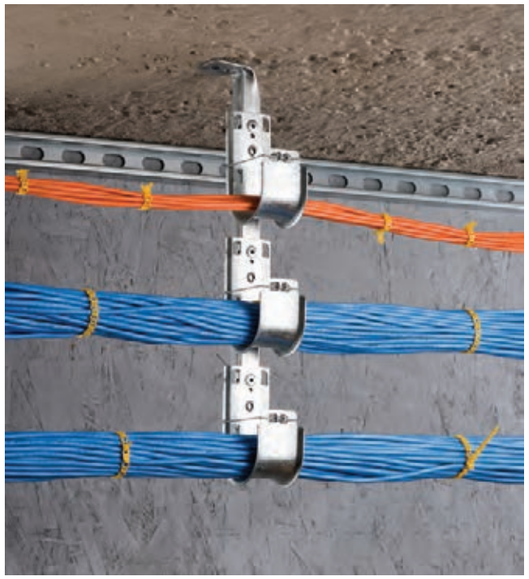
FIND YOUR IDEAL CABLE MANAGEMENT SOLUTION

We are always looking for more ways to lower your total installation costs, reduce the use of tools and elevate safety by incorporating new features into our product portfolio.

That is one of the reasons that our extensive portfolio is designed to deliver superior fastening solutions for your challenges. From start to finish, nVent CADDY has solutions to meet you where you're at; from steel to concrete and an ever-expanding cable management range.

Backed by our extensive customer service and dedication to contractors' demand, nVent CADDY offers products you know and trust, and are suitable for thousands of electrical/datacom applications – from snap clips to metal pressure clips and J-Hooks to a full range of Wire Basket Trays.

Trust nVent CADDY to bring you the highest quality electrical and datacom solutions for the lowest total installed cost.



CONTINUOUS VS. NON-CONTINUOUS SYSTEMS

Continuous support systems consist of cable trays or other supports that run along the entire length of a cable run.

In Power over Ethernet (PoE) applications, Wire Basket Tray is ideal in allowing heat dissipation and for ease of installation of cable bundle seperation to avoid heat buildup.

Alternatively, non-continuous options provide support at intervals for cables. J-hooks, popular for electrical/datacom applications, are an example of a non-continuous support component that supports cables at a lower cost than cable trays while providing strong heat-dissipation performance. nVent CADDY J-Hook System is the only J-Hook that provides proper bend radius helping ensure quality performance and connectivity.

Non continuous pathway support solutions, like J-hooks are up to 70% faster to install than continuous solutions, are often more cost-effective and tend to require less material.

Many contractors and designers are more accustomed to continuous solutions, like cable trays, especially for open-ceiling installations, and thus favor them in most applications.

Regardless of your preference, nVent CADDY offers a wide variety of both continuous and non-continuous fixing, fastening and support products, providing many options for effective cable management design and installation.





Continuous Cable Supports

OVERVIEW

Whatever your project details, nVent CADDY WBT Performance Cable Tray System has a solution (standard or custom) to meet your lead times and budgets, and to exceed your expectations.

NVENT CADDY WBT INDUSTRY FIRSTS

- nVent CADDY WBT PreForm saves installation time and labor, while providing a better engineered install
- nVent CADDY WBT Waterfall for vertical elevation changes without the need to cut and configure
- WBTForm provides a solid flame-rated polymer insert for bottom and sides. WBTForm colors allow tray and form to match an unlimited combination of environments
- UL Certified painted tray means no need to remove paint at splice points to ground/bond
- Cable Dropout for pathway bottom cable exits in various sizes
- nVent CADDY Non-Continuous Cable Pathway Supports available to create secondary pathway outside the main tray

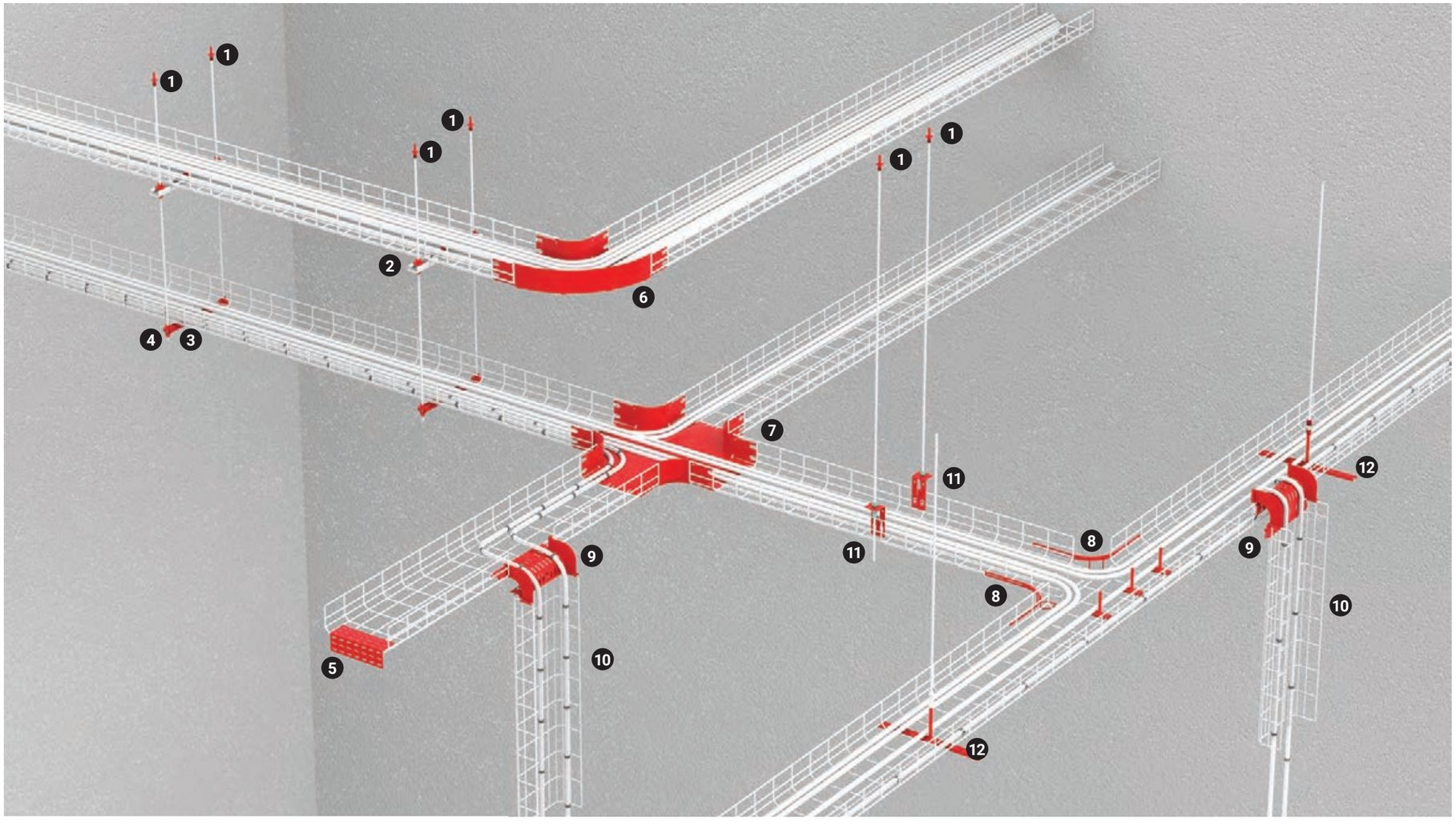
Find more details





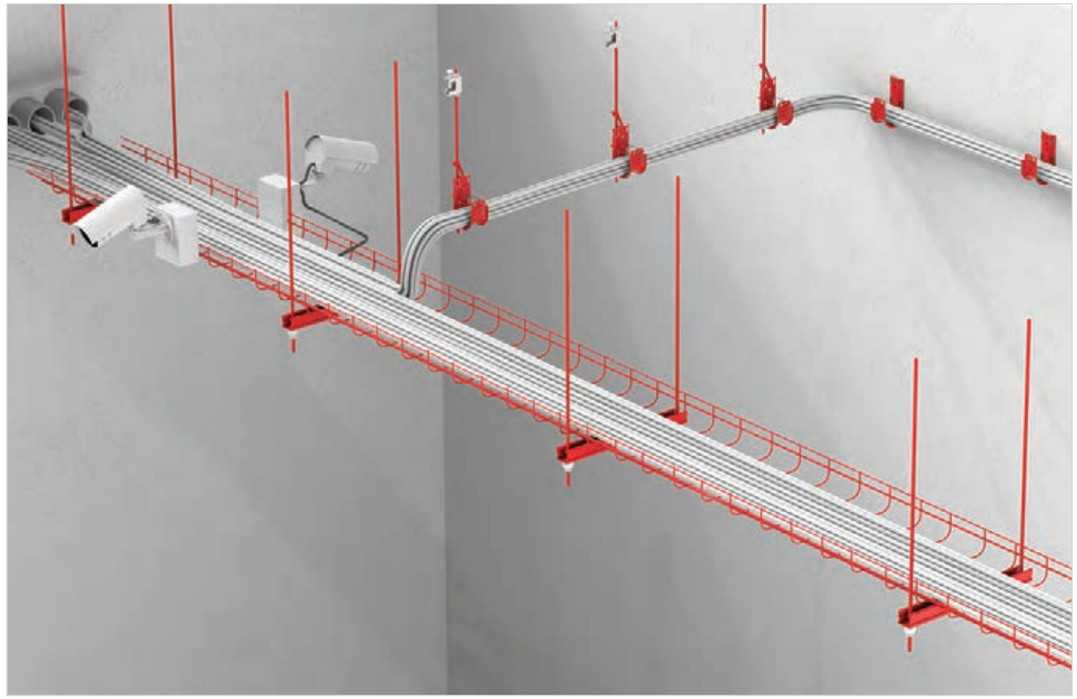






1. **nVent CADDY BSZ-M Concrete Screw,** BSZM
2. **nVent CADDY SNSW Flanged Nut,** SNSWM
3. **nVent CADDY Telescoping Strut Replacement, No Nut,** TSR1220N
   nVent CADDY Telescoping Strut Replacement, Retrofit, TSR1220R
4. **nVent CADDY SN Series Nut,** SNM
5. **nVent CADDY WBT Performance Cable Tray Termination Support,** WBTTERM
6. **nVent CADDY WBT Performance Cable Tray PreForm Elbow 90°,** WBTR90
7. **nVent CADDY WBT Performance Cable Tray PreForm Intersection,** WBTI
8. **nVent CADDY WBT Performance Cable Tray Radius Corner Splice,** WBTRCSPLICE
9. **nVent CADDY WBT Performance Cable Tray Waterfall,** WBTWTRFALL
10. **nVent CADDY Self-Cutting Cable Tie,** CADTIESC
11. **nVent CADDY Wire Basket Support Clip,** WBS2
12. **nVent CADDY WBT Performance Cable Tray Center Support,** WBTCTSPRT

Cable Tray Installation Solutions





The nVent CADDY range of cable tray and basket installation accessories provide a faster installation of trapezed cable tray and basket pathways reducing the total installed costs, while improving safety during installation.

Enabling contractors to hang cable tray and basket threaded rod more efficiently and facilitate prefabrication of trapezes and cable tray/basket components, reducing installation time.

Key features

- Telescoping/adjustable strut support, with retrofit capabilities
- Rod Lock push-to-install technology
- Tool free installation
- Suitable for prefab solution

Seismic Bracing Systems

WE MAKE SEISMIC SIMPLE

nVent CADDY Seismic Solutions protect people, property and equipment during and after a seismic event by ensuring business continuity and continued operation of critical infrastructure and services. nVent CADDY's innovative seismic bracing solutions reduce the total installed cost, and the provided installation technique training and guidance ensures seismic code and standards compliance.

The nVent CADDY team makes seismic simple by:

- Working with you to design a turn-key, fully engineered, complete bracing system that meets your needs
- Identifying the appropriate products from the broad offering
- Offering compatible fixing, fastening and support products
- Explaining installation techniques and tips to meet the evolving codes and standards requirements
- Providing you with knowledge and training on relevant codes and standards, how to design and how to inspect seismic bracing

From design to construction to inspection, we keep our process transparent to ensure a full understanding of the final bracing installation, whether it requires cable or rigid bracing solutions.

nVent CADDY Offers full design and field support for seismic bracing of non-structural services including cable management, to comply with global and country specific codes and standards. This service provides you with assurance that the design will be compliant to your standards and the components have been tested, listed or compliant to reputable standards like UL 203A, FM 1950 or ICC-ES AC413. This design service is suited for contractors and engineers working in projects either at design, estimation or construction stages. The nVent CADDY Application Engineering team can provide the design, submittal documentation, typical drawings and sample specifications.



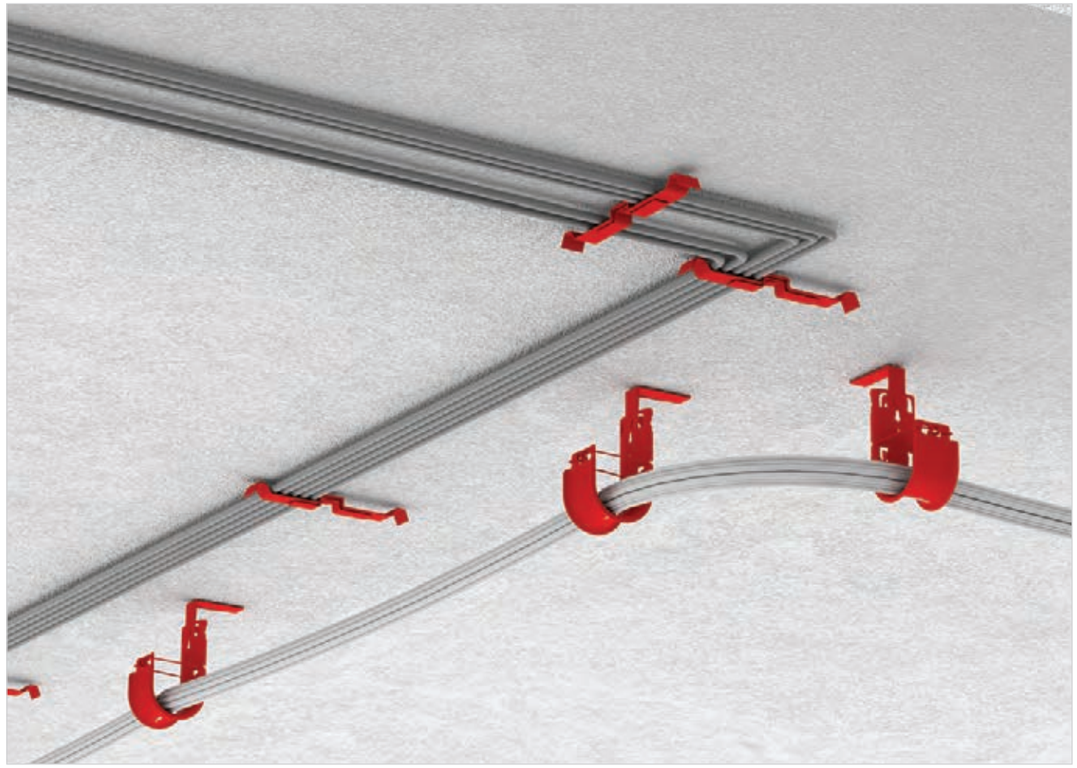
Cable Tray Cable Bracing



Cable Tray Rigid Bracing

1. Email your drawings to your sales representative or complete our contact form online
2. Receive a fully, engineered, turn-key seismic solution customized to meet all code requirements
3. Work with one of our trusted distributors for easy ordering and fast delivery

Non-continous Supports



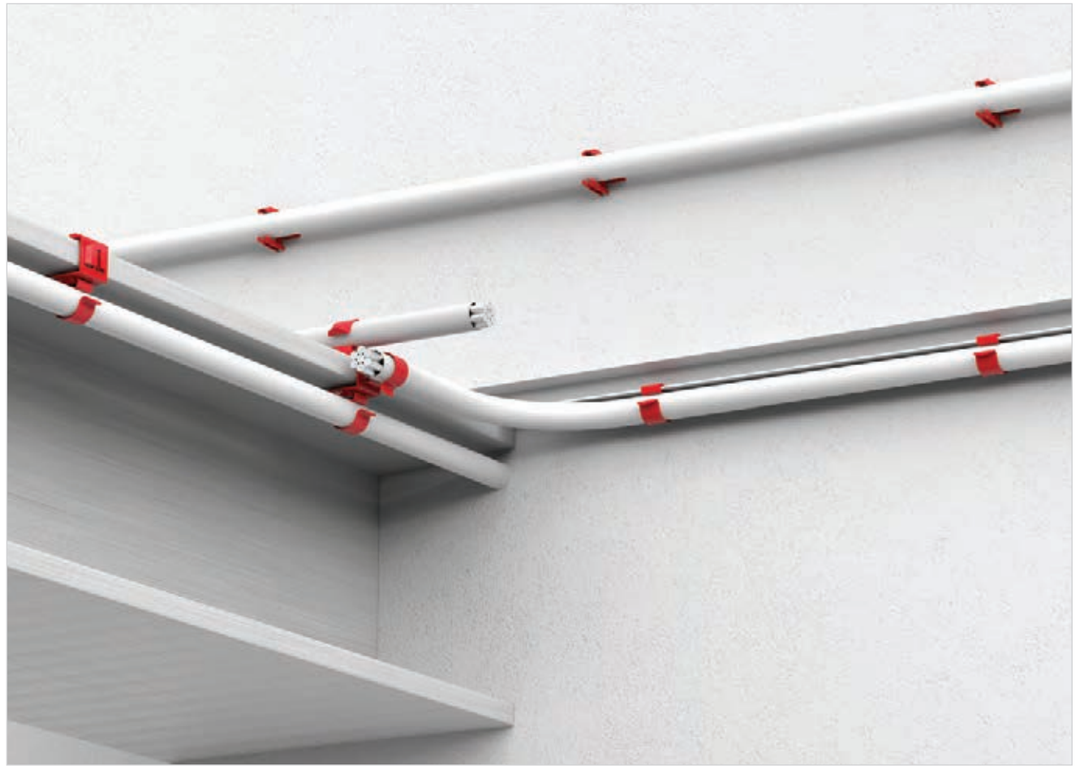


Innovative range of labour time-saving non-continuous cable management fasteners, that are safe and easy for the installer. Enabling contractors to route and support cables more efficiently on any structure at various support intervals and reduce total installed cost.

Key features

- Tool free installation
- Offers a variety of attachment methods onto the structure or other services
- Easy modification and retrofit capability
- Fire rated options available
- Shot fired installation options
- Push-in installation of conduit
- Low-profile clips and clamps that reduces visual impact and provides easy installation in confined ceiling spaces

Cable/Conduit Fixings





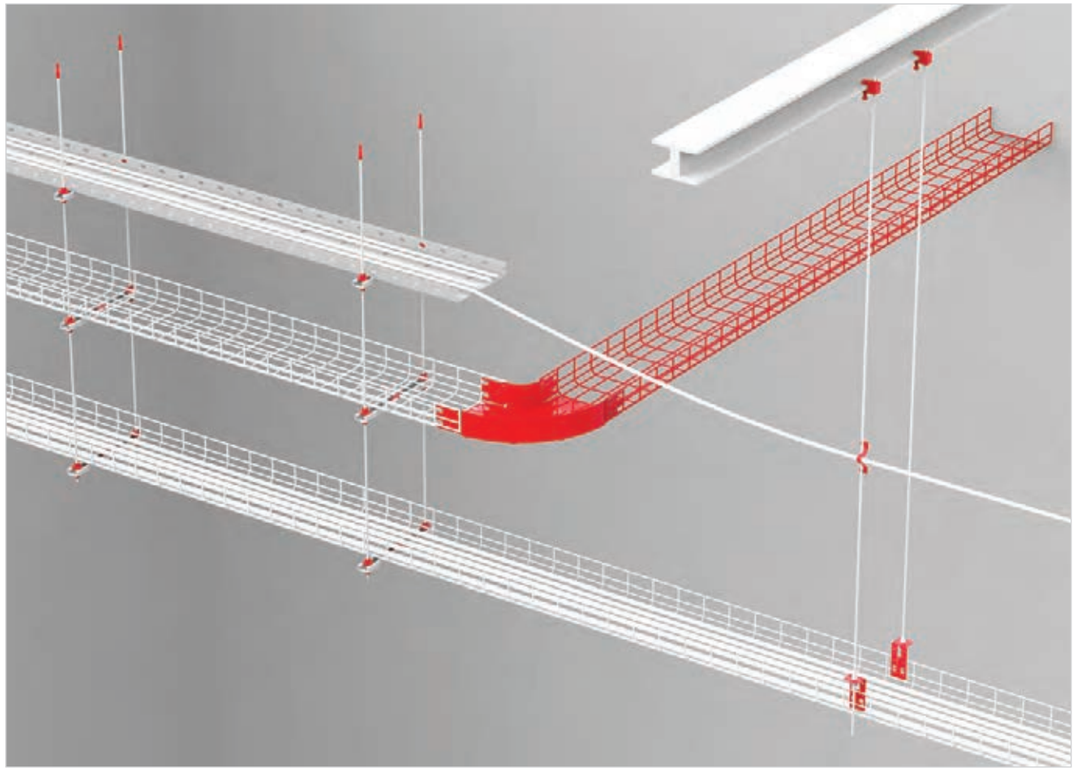
Engineered to include fewer parts, less loose hardware and tool-free components, these light-duty, easy-to-use nVent CADDY solutions can be combined together rapidly to adapt to almost any situation and meet the contractors' needs.

Ideal for single cable and conduit runs installed onto concrete, steel and timber.

Key features

- Reduces installation time by up to 60%
- Push-in installation of conduit
- Compatible with several attachments to steel, concrete and thread rod
- Drill and push in, hammer on and nail gun attachments available
- Snap-together clips can be easily assembled to limit the number of fixings needs
- Able to install multiple conduit runs on single fixing

Data Cable Supports



The Improved nVent CADDY Cat HP J-Hook System is an advanced, non-continuous pathway support solution for today's high-performance cabling systems. Highly engineered features help ensure a stable and secure installation that complies with industry codes and standards for high-performance cables.

The nVent CADDY Cat HP System is an ideal compliment to using nVent CADDY WBT Performance Cable Tray, ladder rack, or similar continuous supports. It provides total installed cost benefits compared to other product solutions. This versatile system accommodates a wide range of attachment methods and is available as individual J-Hooks, pre-built nVent CADDY Cat HP assemblies and multi-tiered trees, as well as interchangeable nVent CADDY Cat HP components. The Improved nVent CADDY Cat HP J-Hook System provides the perfect combination of performance, time savings and versatility required by today's datacom and electrical contractors.

nVent CADDY for faster, easier and safer electrical and datacom installations.





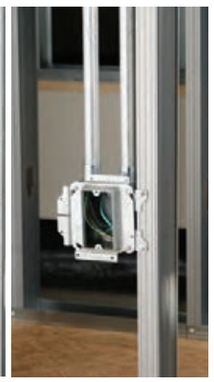
Key features

- Versa-Mount Technology: Innovative attachment design provides multiple structural and installation methods for wall, ceiling, and threaded rod mounting applications
- Ideal for unknown jobsite applications or attachment methods
- Provides optimal support for high-performance data cable—including category cable, Power over Ethernet (PoE), and fiber optic
- Industry-leading bend radius designed to protect high-performance data installations
- Multiple color options aid in the identification and organization of the pathway application
- Provides superior fill capacity and load rating
- Compliant with UL® 2043 and suitable for use in air handling (plenum) spaces
- Meets ISO®/IEC 14763-2, ANSI®/TIA 568 and ANSI®/TIA 569
- Complies with EN 50174-2

In-Wall Solutions







Easy-to-install electrical fixing and fastening solutions for in-wall cabling and mounting applications. A time-saving, innovative range of accessories and mounting brackets for metal and timber studs.

Key features

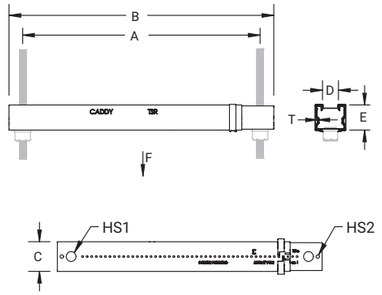
- Providing superior support for inwall components, while eliminating vibration and damage to cable pathways

Cable Tray Installation Solutions

TELESCOPING STRUT REPLACEMENT, NO NUT







The nVent CADDY Telescoping Strut Replacement streamlines installation with its integrated spring clip for secure length adjustment from 300 mm to 500 mm. Its full-length strut profile accommodates standard fittings, while an integrated ruler aids precise spacing, and it supports various loads, including multiple 50 DN conduits and cable trays up to 450 mm, even allowing direct attachment and vertical space savings. This efficient solution enhances speed and versatility for diverse support applications.

Features

- Can be attached directly to a wall for wall-mounted applications
- Telescopes to the desired length and is locked in place by snapping closed a spring retainer clip
- Standard strut profile runs the entire length of the part, allowing most standard fittings to be placed anywhere between the rods
- Integrated ruler displays space between hanger rods in inches and centimeters
- Supports up to seven 2" (50 DN) conduits, six 2" (50 DN) water filled pipes at 10' (3 m) spacing, or up to 18" (450 mm) cable tray
- Conduit can be supported on the top and bottom, eliminating the need for double sided strut
- Conduit and pipe can be placed directly on the strut profile, saving vertical space in buildings with limited room for installation

Finish: Pregalvanized
Material: Steel

Part Number	Article Number	Hole Size 1 HS1	Hole Size 2 HS2	Thickness T	A	B	C	D	E	Static Load 1 F1	Static Load 2 F2
TSR1220N	366593	13.7 mm	4.8 mm	1 mm	318 - 508 mm	356 - 546 mm	41 mm	22.2 mm	35 mm	1330 N	880 N

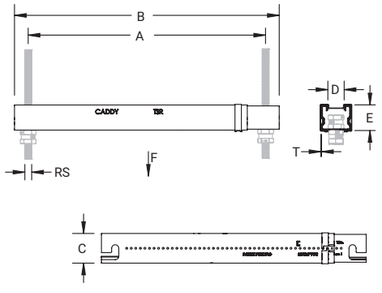
Static Load 1 represents a distributed load for 12" - 20" (300 - 500 mm) installations and a point load for 12" - 16" (300 - 400 mm) installations. Static Load 2 represents a point load for 16" - 20" (400 - 500 mm) installations.

Cable Tray Installation Solutions

TELESCOPING STRUT REPLACEMENT, RETROFIT







The nVent CADDY Retrofit Telescoping Strut Replacement features slotted ends for rapid attachment to existing trapeze systems using SN Nuts, telescoping from 300 mm to 500 mm and locking securely with a spring clip. Its full-length strut profile supports various fittings and loads, including multiple conduits and wide cable trays, while an integrated ruler aids spacing, and direct placement optimizes vertical space. This solution significantly reduces retrofit installation time and downtime.

Features

- Slotted ends allow the bracket to be installed with four nVent CADDY SN Nuts on threaded rod above an existing trapeze, saving contractor time and limiting building downtime
- Telescopes to the desired length and is locked in place by snapping closed a spring retainer clip
- Standard strut profile runs the entire length of the part, allowing most standard fittings to be placed anywhere between the rods
- Integrated ruler displays space between hanger rods in inches and centimeters
- Supports up to seven 2" (50 DN) conduits, six 2" (50 DN) water filled pipes at 10' (3 m) spacing, or up to 18" (450 mm) cable tray
- Conduit can be supported on the top and bottom, eliminating the need for double sided strut
- Conduit and pipe can be placed directly on the strut profile, saving vertical space in buildings with limited room for installation

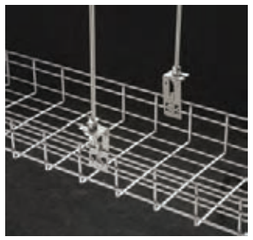
Finish: Pregalvanized
Material: Steel

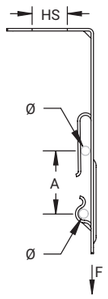
Part Number	Article Number	Rod Size RS	Thickness T	A	B	C	D	E	Static Load 1 F1	Static Load 2 F2
TSR1220R	366594	10	1 mm	318 - 508 mm	356 - 546 mm	41 mm	22.2 mm	35 mm	1330 N	880 N

Static Load 1 represents a distributed load for 12" - 20" (300 - 500 mm) installations and a point load for 12" - 16" (300 - 400 mm) installations. Static Load 2 represents a point load for 16" - 20" (400 - 500 mm) installations.

WIRE BASKET SUPPORT CLIP







The nVent CADDY Wire Basket Support Clip enables direct suspension of wire basket from threaded rod, eliminating the need for a strut trapeze. Its securing fingers offer superior stability, protecting cables within the basket, and the design facilitates convenient off-site pre-fabrication. This clip provides a faster, safer, and pre-fabrication-friendly solution for wire basket support.

Features

- Allows wire basket to be suspended from threaded rod without the need of a strut trapeze
- Securing fingers provides superior stability, preventing damage to the cables in the basket
- Allows for pre-fabrication off site

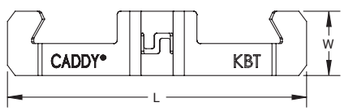
Finish: nVent CADDY Armour
Material: Spring Steel

Part Number	Article Number	Hole Size HS	A	Diameter Ø	Static Load F
WBS2	182019	13.7 mm	24 - 32 mm	3.5 - 6 mm	530 N

WIRE BASKET TRAY CLIP







The KBT Wire Basket Tray Clip is an easy-to-install time-saving solution for securely attaching wire basket tray to strut. Simply place the basket tray on top of the strut, position the KBT clip over the tray at the desired position, squeeze the KBT and slide it in place to finish the connection - that simple! The installation is completed without any tools or additional hardware. The KBT Wire Basket Tray Clip is another time-saving solution designed to help contractors complete projects faster, easier, and more efficiently.

Features

- Attaches wire basket tray to strut without additional hardware
- No tools required

Finish: nVent CADDY Armour
Material: Spring Steel

Part Number	Article Number	Wire Size	Length L	Width W	Packing Quantity
KBT	170011	4 - 8 mm	74 mm	16 mm	1

Use two clips per strut support for trays up to 12" (300 mm). Use three clips per strut support for trays up to 18" (457 mm) and add one clip per strut support for each additional 6" (150 mm) of tray width.
No load rating, for positioning only.

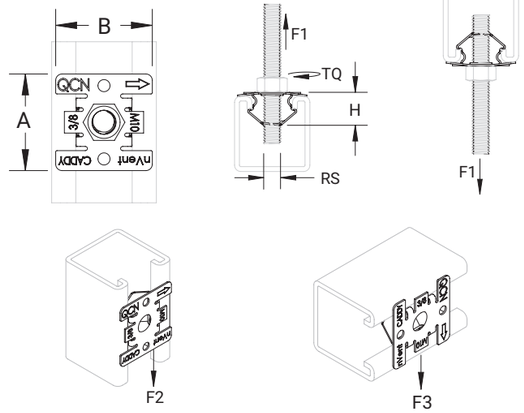
Cable Tray Installation Solutions

Overview
Cable Tray Installation Solutions
Seismic Bracing System
Non-continuous Supports
Fasteners
Cable/Conduit Fixings
Data Cable Supports
In-Wall Solutions

NVENT CADDY ROD LOCK SPRING STEEL STRUT NUT







The QCN combines the unique properties of Spring Steel and nVent CADDY "push-to-install" technology to create a snap in place strut nut with shockingly quick install of threaded rod or bolts. Use with a hex nut on threaded rod for fast install of prefabricated trapeze systems or with a truss head bolt for unbelievably fast wall mounting of electrical boxes and other services.

Features

- Easy "push-to-install" design allows installers to simply push the threaded rod through the mounting hole, instantly holding it in position
- Works with slightly damaged threads and minor burrs on the threaded rod
- Perfect for quickly installing branch runs either at the load with standard strut or at the structure in combination with embedded strut
- Integrated design eliminates the need for finicky spring nuts and loose hardware, simplifying installation
- Quickly wall mount enclosures using common threaded bolts
- Designed for use with standard strut widths (41 mm) both shallow and deep profiles

Finish: nVent CADDY Armour
Material: Spring Steel

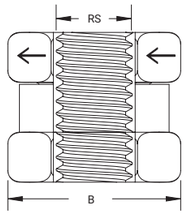
Part Number	Article Number	Rod Size RS	Height H	A	B	Static Load 1 F1	Static Load 2 F2	Static Load 3 F3	Torque TQ
4QCN	593000	M6	19 mm	38 mm	38 mm	325 N	90 N	130 N	1.12 N·m
5QCN	593001	M8	19 mm	38 mm	38 mm	450 N	110 N	225 N	1.5 N·m
6QCN	593002	M10	19 mm	38 mm	38 mm	475 N	130 N	225 N	2.5 N·m
8QCN	593003	M12	18 mm	38 mm	38 mm	550 N	130 N	225 N	2.75 N·m

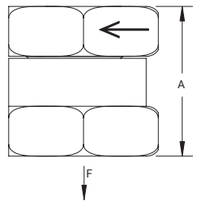
The QCN requires a longer bolt than standard strut nuts. See instruction sheet for detailed information.
In order to function properly on shallow strut (21 mm or 13/16" deep), the QCN should be installed directly above a slot hole.

SN SERIES NUT









The nVent CADDY SN Series Nut offers a fast and reliable solution for securing components to threaded rod. Designed for ease of use, these nuts enable quick hand-tightening, reducing installation time compared to traditional methods. Their robust construction ensures a secure connection for various support applications.

Features

- Allows side mounting of nut to threaded rod
- Reduces the need for threading compared to standard nuts and washers
- Ideal for retrofit projects, such as trapeze installations, where disassembly of the support system is not desired
- Works with slightly damaged threads and minor burrs on the threaded rod
- Reduces installation time up to 50%

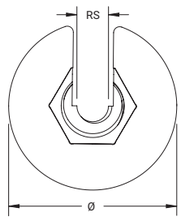
Finish: Electrogalvanized
Material: Steel

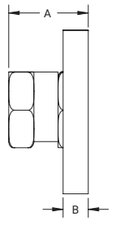
Part Number	Article Number	Rod Size RS	A	B	Static Load F
SNM10	390007	10	19 mm	19 mm	6000 N
SNM12	390008	12	23 mm	25 mm	10000 N

SNSW FLANGED NUT









The nVent CADDY SNSW Flanged Nut provides a secure and efficient fastening solution with its integrated flange, eliminating the need for a separate washer. This design simplifies installation, saving time and reducing component count. The flanged base offers increased bearing surface, ensuring a stable and reliable connection for various support applications.

Features

- Ideal for retrofit projects, such as trapeze installations, where disassembly of the support system is not desired
- Use as a stopper when installing nVent CADDY Rod Lock assemblies
- Can be easily installed, removed, and repositioned at any location along the threaded rod
- Ready to use out of the box and eliminates multiple pieces of standard hardware
- Functions as a hex nut and flat washer combined
- Washer is wide enough to work with standard strut channel profiles

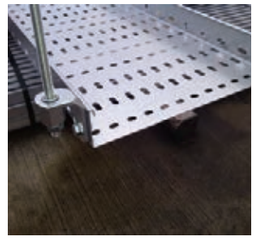
Finish: Electrogalvanized
Material: Steel

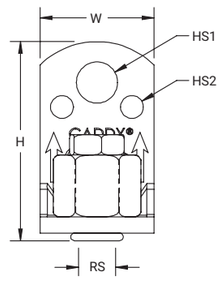
Part Number	Article Number	Static Load Safety Factor	Rod Size RS	Diameter Ø	A	B	Wrench Size	Static Load F
SNSWM10	390102	3:1	10	42.4 mm	20 mm	6.5 mm	20 mm	1557 N

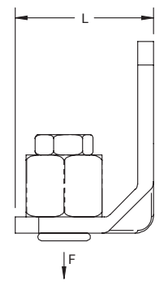
For use on plain and electro zinc plated hardware only

NVENT CADDY ROD LOCK L-BRACKET









The nVent CADDY Rod Lock L-Bracket provides a fast and reliable 90-degree connection to threaded rod without the need for nuts or washers. Its innovative Rod Lock mechanism simply pushes onto the rod and locks securely, significantly reducing installation time. This bracket offers a robust and efficient solution for creating perpendicular supports in various applications.

Features

- Easy “push-to-install” design allows installers to simply push the threaded rod through the mounting hole, instantly holding it in position
- Prefabricated assemblies easily lift and lock into place, helping to save time and money
- Multiple attachment holes support the use of either self-drilling screws or bolts, offering installation options for concrete, wood, and steel structures
- Lock nut can be finger tightened, locking the rod in place
- Integrated adjustment nut enables fine tuning the system height up or down
- Extremely useful in tight spaces where wrenches are difficult to use

Finish: Electrogalvanized
Material: Steel

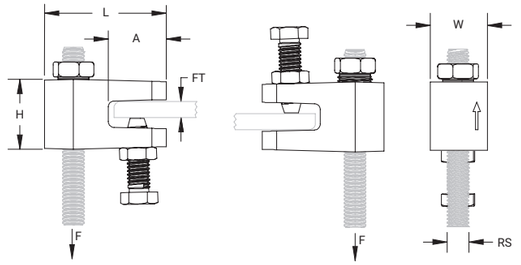
Part Number	Article Number	Rod Size RS	Height H	Length L	Width W	Hole Size 1 HS1	Hole Size 2 HS2	Wrench Size	Static Load F
CRLLM10EG	390012	10	61.3 mm	43.2 mm	35.6 mm	10.4 mm	7.1 mm	24 mm	3100 N

Follow fastener manufacturer’s recommended shear and pull-out strength when fastening to the structure. Fastener not included.
Install in accordance with applicable code.

NVENT CADDY ROD LOCK BEAM CLAMP







The nVent CADDY Rod Lock Beam Clamp offers a rapid and secure method for suspending threaded rod from structural beams without drilling or welding. Its innovative Rod Lock mechanism allows for quick push-on installation and reliable locking, eliminating the need for nuts and washers. This clamp provides a time-saving and robust solution for overhead support applications.

Features

- Prefabricated assemblies easily lift and lock into place, helping to save time and money
- Easy "push-to-install" design allows installers to simply push the threaded rod through the mounting hole, instantly holding it in position
- Lock nut can be finger tightened, locking the rod in place
- Works with slightly damaged threads and minor burrs on the threaded rod

Finish: Electrogalvanized
Material: Cast Iron

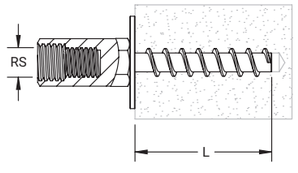
Part Number	Article Number	Rod Size RS	Flange Thickness FT	Height H	Length L	Width W	A	Static Load 1 F1	Static Load 2 F2
CRLBM10EG	390002	10	3 - 10 mm	30 mm	52.3 mm	25.3 mm	24.9 mm	1100 N	2200 N

Static Load 1 represents 1/8" to 3/16" (3 mm to 5 mm) flange thickness. Static Load 2 represents 1/4" to 3/8" (6 mm to 10 mm) flange thickness.

BSZ-M CONCRETE SCREW







The nVent CADDY Insert Anchor provides a fast and reliable anchoring solution directly into concrete, brick, and block. Eliminating the need for separate anchors or inserts, this screw self-taps its own threads, ensuring a strong and secure hold with reduced installation time. Its design offers a convenient and efficient fastening method for various applications.

Features

- Fire resistance class R30-R120 for design of anchorages under exposure to fire
- ETA assessed for anchoring in cracked and non-cracked concrete
- Use in concrete with threaded rod
- Approved for use in seismic design category C1*

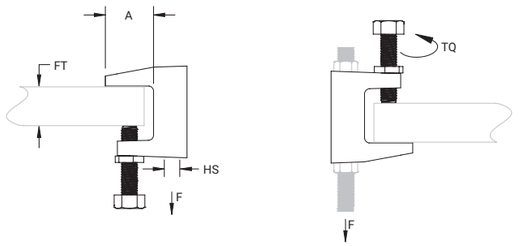
Finish: Electrogalvanized
Material: Steel

Part Number	Article Number	Screw Length L	Rod Size RS	Hex Dimension	Drill Bit Diameter	Embedment Depth	Torque TQ
BSZM6X35EG	402690	35 mm	8, 10	13 mm	6 mm	35 mm	10 N·m
BSZM6X55EG*	402695	55 mm	8, 10	13 mm	6 mm	55 mm	10 N·m

300M UNIVERSAL BEAM CLAMP







The nVent CADDY 300M Universal Beam Clamp offers a versatile and robust solution for attaching threaded rod or other hardware to structural beams without drilling or welding. Its adjustable design accommodates a wide range of beam flanges, providing a flexible and secure mounting point. This clamp ensures a reliable and non-permanent connection for various overhead support applications.

Features

- Universal beam clamp for standard beams
- Structural attachment (with infinite adjustment) to top or bottom flange of metal beams to support hanger rod
- Including set screw and lock nut

Finish: Electrogalvanized
Material: Cast Iron
Hole Type: Plain

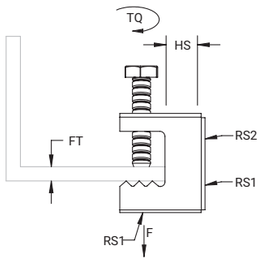
Part Number	Article Number	Hole Size HS	Flange Thickness FT	A	Torque TQ	Static Load F	Packing Quantity	Certifications
30009MM	389500	9 mm	18 mm Max	21 mm	14 N·m min	1200 N	1	VdS
30011MM	389510	11 mm	20 mm Max	23 mm	14 N·m min	2500 N	1	FM Approved, Pipe Hanger Components, VdS
30013MM	389520	13 mm	26 mm Max	35 mm	14 N·m min	3500 N	1	FM Approved, Pipe Hanger Components, VdS
30017MM	389505	17 mm	28 mm Max	30 mm	14 N·m min	5500 N	1	FM Approved, Pipe Hanger Components, VdS

Setscrew must be tightened and torqued onto the sloped side of the I-beam.

BC BEAM CLAMP







The nVent CADDY BC Beam Clamp provides a simple and reliable solution for attaching threaded rod or other hardware to structural beams without the need for drilling or welding. Its straightforward design allows for easy installation by tightening a setscrew, creating a secure and non-permanent mounting point. This clamp offers a cost-effective and efficient method for overhead support applications.

Features

- Easy installation to beam flanges
- Cost effective solution for lighter load requirements

Finish: nVent CADDY Armour
Material: Spring Steel

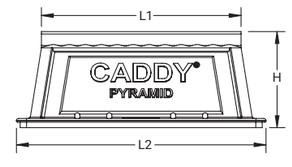
Part Number	Rod Size 1 RS1	Rod Size 2 RS2	Hole Size HS	Flange Thickness FT	Torque TQ	Static Load F
BC	0.25	10	10.5 mm	16 mm Max	3 N·m	440 N

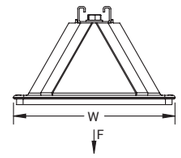
Setscrew must be tightened and torqued onto the sloped side of the I-beam.

NVENT CADDY PYRAMID ST FIXED STRUT SUPPORT









The nVent CADDY Pyramid ST Fixed Strut Support offers a stable and ready-to-use solution for supporting strut on various flat roof surfaces without penetrating the membrane. Its pre-assembled design and durable construction provide a reliable and non-invasive support for mechanical and electrical systems. This fixed-height support ensures a secure and efficient installation.

Features

- Provides superior support for pipe, conduit, cable tray and equipment
- Foam bottom offers low abrasion interface for better roof membrane protection
- Compatible with roof surfaces including single ply, bituminous, metal and spray foam
- Provides superior load distribution, even with varying rooftop surfaces
- Ready to use out of the box, saving installation time and labor
- Multiple sizes and load ratings offer the ability to tailor the solution to the application
- Easy to transport to the roof
- Hot-dip galvanized and UV stabilized for long lasting performance

Static Load Safety Factor: 3:1
Finish: Hot-Dip Galvanized
Material: Polyethylene, Polypropylene, Steel
Temperature: –45 to 65°C

Part Number	Article Number	Length 1 L1	Length 2 L2	Height H	Width W	Surface Area	Unit Weight	Static Load F	Certifications
PSF6C	360463	152 mm	203 mm	122 mm	152 mm	26452 mm²	0.5 kg	1334 N	–
PSF10C	360464	254 mm	317.5 mm	122 mm	203 mm	59355 mm²	1 kg	4450 N	ITB
PSF10D		254 mm	317.5 mm	163 mm	203 mm	59355 mm²	1.5 kg	4450 N	ITB
PSF16C	360466	406 mm	483 mm	122 mm	203 mm	91613 mm²	1.5 kg	6670 N	ITB
PSF16D		406 mm	483 mm	163 mm	203 mm	91613 mm²	2 kg	6670 N	ITB

Static load at 73.1 kPa (10.6 psi) roof loading. Contact project or roofing engineer for maximum allowable load on individual project roof system.

Seismic Bracing System

CABLE SPOOL





The nVent CADDY Pre-stretched cable spool provides a convenient and reliable solution for cable management and support, offering pre-stretched cable that can be cut to the required length. This design eliminates the need for on-site stretching, saving time and ensuring consistent tension. Ideal for seismic bracing and various support applications.

Features

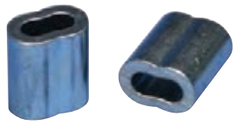
- Cut to length as needed
- Pre-stretched restraint cable
- Certified chemically compatible with CPVC piping systems

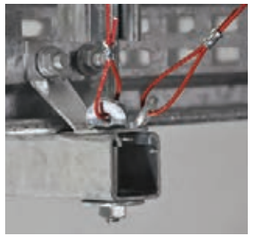
Finish: Pregalvanized, Painted
Material: Steel

Part Number	Article Number	Brace Size	Diameter	Cable Length	UL Listed Load	Color
CSB12CBL	402190	#12	2.4 mm	76.2 m	1859 N	Red
CSB18CBL	402191	#18	3.2 mm	76.2 m	3434 N	White
CSB36CBL	402192	#36	4.8 mm	76.2 m	8490 N	Blue

Cable is powder coated.

OVAL SLEEVE





The nVent CADDY Oval Sleeve is a fast and effective way to secure cable to rooftop equipment. By utilizing the nVent CADDY Manual Swaging Tool, contractors working on rooftops or in the shop can now benefit from a full-service solution designed for durability and longevity throughout high and low temperatures. Made to secure various rooftop equipment such as metal ducts, HVAC units, piping and walkways.

Features

- Creates secure loop ends
- Swage with swaging tools

Material: Copper
Finish: Electrogalvanized

Part Number	Article Number	Brace Size
CSB12SLVB	402194	#12
CSB18SLVB	402195	#18
CSB36SLVB	402196	#36

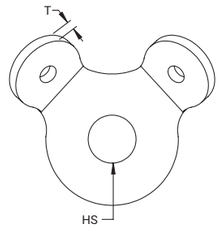
Two side-by-side swages required on #12 and #18 cable. Three side-by-side swages required on #36 and #48 cable.
Check swage with gauge (not included).

Seismic Bracing System

UNIVERSAL RESTRAINT CLIP







The nVent CADDY Universal Restraint Clip offers a versatile and reliable solution for securing various cables, conduits, and pipes. Its design accommodates a wide range of cable sizes, providing a flexible and secure restraint. This clip simplifies installation and helps maintain organized and safely supported systems.

Features

- Attaches cable brace to structure

Finish: Electrogalvanized
Material: Steel

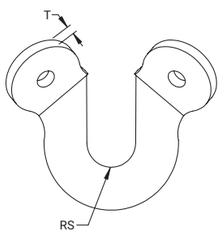
Part Number	Article Number	Brace Size	Hole Size HS	Thickness T	UL Listed Load
CSBURC12	402199	#12, #18, #36	14 mm	4.27 mm	3430 N
CSBURC38	402198	#12, #18, #36	11 mm	4.27 mm	3430 N
CSBURC58	402200	#12, #18, #36	17 mm	4.27 mm	3430 N

Brace member is not included.
Mount to the structure using the center hole. Loop cable through the holes in the bent tabs and swage in place.

UNIVERSAL RESTRAINT CLIP, SLOTTED







The nVent CADDY Slotted Universal Restraint Clip, provides a versatile and easily adjustable solution for securing cables, conduits, and pipes. Its slotted design allows for quick and precise positioning and attachment using various fasteners. Offering a wide range of applications, this clip ensures organized and reliably restrained systems.

Features

- Slotted design ideal for attaching to existing threaded rod on trapezes

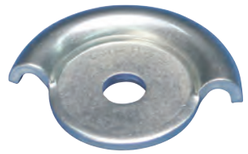
Finish: Electrogalvanized
Material: Steel

Part Number	Article Number	Brace Size	Rod Size RS	Thickness T
CSBURCR12	402202	#12, #18	12	4.27 mm
CSBURCR38	402201	#12, #18	10	4.27 mm
CSBURCR58	402203	#12, #18	16	4.27 mm

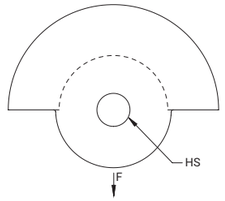
Brace member is not included.

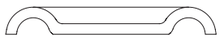
Seismic Bracing System

NO PRY CLIP









The nVent CADDY No Pry Clip offers a fast, secure, and damage-free solution for attaching to metal or wood without the need for prying tools. Its innovative design allows for simple push-on installation, providing a reliable mounting point for various applications while preserving the integrity of the mounting surface. This clip significantly reduces installation time and potential damage.

Features

- Eliminates prying effect on fasteners and anchors

Finish: Electrogalvanized
Material: Steel

Part Number	Article Number	Brace Size	Hole Size HS	UL Listed Load
CSBNPC38	402528	#12, #18, #36	11 mm	8490 N
CSBNPC12	402208	#12, #18, #36	14 mm	8490 N

Brace member is not included.

MANUAL SWAGING TOOL



The nVent CADDY Manual Swaging Tool provides a portable and reliable solution for creating strong and permanent connections #12 pre-stretched cable. This hand-operated tool offers controlled swaging, ensuring consistent and secure terminations for various support and bracing applications. Its manual operation makes it ideal for on-site use without the need for power.

Material: Steel

Part Number	Article Number	Brace Size
CSB12SBHS	404461	#12

MULTI-SIZE MANUAL SWAGING TOOL



The nVent CADDY Multi-Size Manual Swaging Tool offers a versatile and portable solution for creating secure connections in various sizes of cable and wire rope. This hand-operated tool features interchangeable dies, allowing for consistent and reliable swaging across a range of diameters.

Material: Steel

Part Number	Article Number	Brace Size
CSB3346SB	402209	#12, #18, #36

Seismic Bracing System

BATTERY-OPERATED SWAGING TOOL



The nVent CADDY Battery-Operated Swaging Tool provides a powerful and portable solution for efficient and consistent swaging of cable and wire rope. This tool offers the convenience of cordless operation, increasing productivity and ease of use on the job site. It delivers reliable and secure connections for various support and bracing applications, reducing manual effort and installation time.

Features

- Provides less strenuous installation when compared to manual swaging tools
- Cordless design allows installers to easily move around the job site
- Compatible with large diameter cables
- Increases installation efficiency by reducing the number of swages required (from 2 to 1 on red and white cable; from 3 to 2 on blue cable)

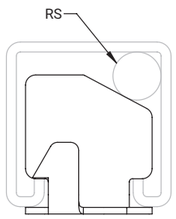
Material: Steel

Part Number	Article Number	Brace Size
CSBBS121836	402534	#12, #18, #36

NVENT CADDY QUICK CLIP ROD STIFFENER







The nVent CADDY Quick Clip Rod Stiffener provides a fast and effective solution for stabilizing and preventing sway in threaded rod suspensions. Its innovative clip design allows for quick, tool-free installation onto the rod, securely bracing it against various structural members. This stiffener enhances the stability of overhead supports, ensuring a more robust and reliable system.

Features

- Secures strut channel to threaded rod for stiffening
- One hand, snap-in place installation
- No tools or bolt tightening required

Material: Stainless Steel 316 (EN 1.4401)

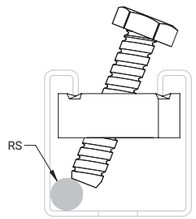
Part Number	Article Number	Strut Type	Rod Size RS
CSBRS2	404538	A (41 x 41 mm)	10
CSBRS3	404539	A (41 x 41 mm)	12

Seismic Bracing System

STRUT ROD STIFFENER







The nVent CADDY Strut Rod Stiffener provides a robust solution for stabilizing threaded rod in strut-mounted applications, minimizing sway and vibration. Designed for easy integration with standard strut profiles, this stiffener enhances the rigidity of overhead support systems, ensuring a more secure and reliable installation for mechanical and electrical components.

Features

- Secures strut channel to threaded rod for stiffening

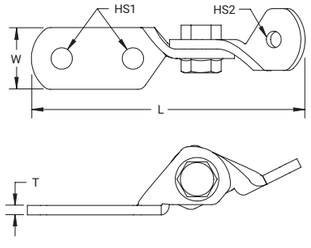
Finish: Electrogalvanized
Material: Steel

Part Number	Article Number	Strut Type	Rod Size RS
CSBRS37EG	404467	A (41 x 41 mm)	10, 12, 16, 20

STRUT SEISMIC HINGE







The nVent CADDY Strut Seismic Hinge provides a crucial connection point in seismic bracing systems, allowing controlled movement while maintaining structural integrity. Designed for easy integration with strut, this hinge accommodates seismic forces, preventing rigid connections from fracturing. It ensures the stability and safety of suspended systems during seismic events.

Features

- Complete hinge assembly
- Ideal for attaching sway bracing to MEP system supports
- Attaches to strut trapezes and to structure

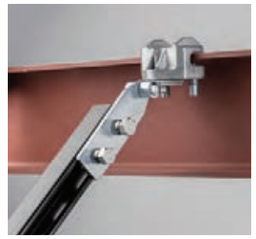
Finish: Electrogalvanized
Material: Steel

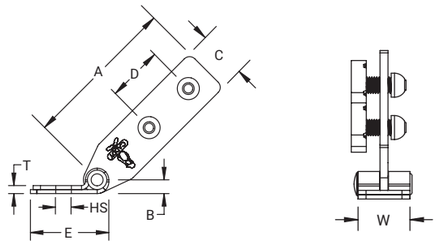
Part Number	Article Number	Hole Size 1 HS1	Hole Size 2 HS2	Length L	Width W	Thickness T
CSBSH00375EG	404463	14 mm	11 mm	179.8 mm	41.3 mm	6.4 mm
CSBSH00500EG	404464	14 mm	14 mm	179.8 mm	41.3 mm	6.4 mm
CSBSH00625EG	404465	14 mm	17 mm	179.8 mm	41.3 mm	6.4 mm
CSBSH00750EG	404466	14 mm	21 mm	179.8 mm	41.3 mm	6.4 mm

Seismic Bracing System

UNIVERSAL STRUCTURAL BRACKET, STRUT BRACE







The nVent CADDY Universal Structural Bracket, Strut Brace, offers a versatile and robust solution for creating diagonal bracing connections in various structural applications. Designed for easy attachment to different structural members and strut, this bracket provides a strong and adjustable connection point for seismic or sway bracing. Its universal design simplifies installation and ensures reliable structural support.

Features

- Used for installations where strut brace is perpendicular to structure
- One wrench size fits all required hardware, eliminating the need to change tools
- Shear-off head helps ensure correct torque and simplifies inspection

Finish: Electrogalvanized
Material: Steel

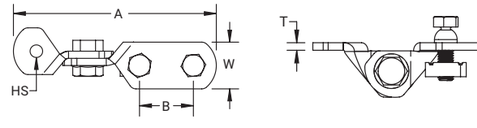
Part Number	Article Number	Hole Size HS	Width W	Thickness T	A	B	C	D	E
CSBUS1	404568	14.3 mm	40.6 mm	6.4 mm	133.4 mm	12.7 mm	40.6 mm	50.8 mm	66 mm
CSBUS2	404569	20.6 mm	40.6 mm	6.4 mm	133.4 mm	12.7 mm	40.6 mm	50.8 mm	66 mm

Cut length for strut member is +/−1" (25 mm) of measured length.

STRUT SEISMIC HINGE BRACKET ASSEMBLY







The nVent CADDY Strut Seismic Hinge Bracket Assembly provides a ready-to-install solution for creating seismic bracing connections using strut. This assembly integrates a seismic hinge with a robust bracket, simplifying installation and ensuring a reliable and code-compliant connection that allows for controlled movement during seismic events, protecting suspended systems.

Features

- Used for installations where strut brace is parallel to structure
- One wrench size fits all required hardware, eliminating the need to change tools
- Shear-off head helps ensure correct torque and simplifies inspection

Finish: Electrogalvanized
Material: Steel

Part Number	Article Number	Hole Size HS	Width W	Thickness T	A	B
CSBUS1PA	404602	14.3 mm	40.6 mm	6.4 mm	177.8 mm	47.8 mm
CSBUS2PA	404603	20.6 mm	40.6 mm	6.4 mm	177.8 mm	47.8 mm

Seismic Bracing System

SEISMIC LIGHTING FIXTURE CLAMP





The nVent CADDY Seismic Lighting Fixture Clamp provides a secure and code-compliant solution for suspending and bracing lighting fixtures in areas prone to seismic activity. This clamp is specifically designed to minimize movement and prevent fixture damage during an earthquake, ensuring the safety and stability of overhead lighting systems. Its robust construction and easy installation make it a reliable choice for seismic bracing applications.

Features

- Secures fluorescent light fixtures to the ceiling frame members
- Requires no additional chains, cables or slack wires attached to the fixture
- Helps strengthen integrity of the T-Grid system
- Holds in place against the force of standard fire-hose pressure

Finish: Plain
Material: Steel

Part Number	Fixture Configuration	Packing Quantity
SFCLT	One Standard Tapered 0.61 x 1.22 m Fixture	4

Tested for compliance to the UBC, NEC®, NBC, and CEC.

STEEL FLANGE ADAPTER

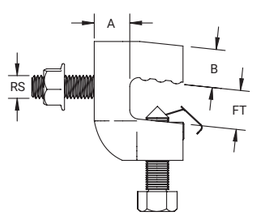


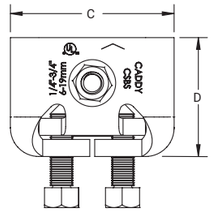


This code-compliant Structural Attachment is part of the nVent CADDY line of innovative rigid bracing system, designed to provide superior performance and meet the highest seismic load requirements. Its innovative design allows quick and easy installation onto both top or bottom flange of a wide range of steel I-Beams. Its snap-off bolts make inspection of seismic sway braces simple.

Features

- Installs on top or bottom flange of I-beams or bar joists
- Low profile easily fits between metal deck and steel structure
- Thumb spring retainer allows for ease of positioning
- Available pre-assembled to the Universal Structural Bracket, eliminating field assembly
- Snap-off bolt head helps enable easy installation and inspection of seismic sway braces
- FM® Specification Tested





Material: Steel

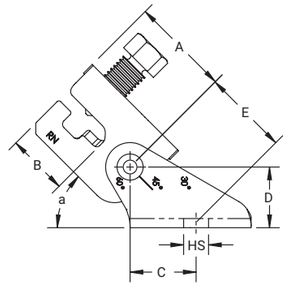
Part Number	Finish	Flange Thickness FT	Rod Size RS	A	B	C	D
CSBS1HDN	Hot-Dip Galvanized	6 - 19 mm	1/2"	21 mm	23 mm	92 mm	67 mm
CSBS1N	Electrogalvanized	6 - 19 mm	1/2"	21 mm	23 mm	92 mm	67 mm
CSBS2HDN	Hot-Dip Galvanized	19 - 31 mm	1/2"	23 mm	23 mm	92 mm	79 mm
CSBS2N	Electrogalvanized	19 - 31 mm	1/2"	23 mm	23 mm	92 mm	79 mm

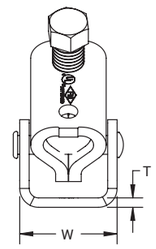
Structure Attachment and Brace Member are not included

Seismic Bracing System

UNIVERSAL STRUCTURAL BRACKET







This code-compliant Structural Attachment is part of the nVent CADDY line of innovative rigid bracing system, designed to provide superior performance and meet the highest seismic load requirements. Its versatile design allows quick and easy installation directly to concrete, wood, bar joist or I-beam adapters and is compatible with 1" through 2" brace pipes. Its snap-off bolt makes inspection of seismic sway braces simple.

Features

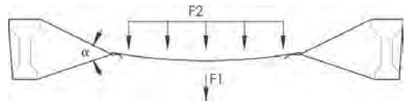
- Universal design allows one product to attach directly to concrete, wood, bar joist or I-beam adapters
- Integrated angle gauge easily displays brace member angle of installation
- Snap-off bolt head helps enable easy installation and inspection of seismic sway braces
- Works with 1" through 2" (25,4 mm through 50,8 mm) brace pipes to reduce inventory
- Low profile minimizes prying effect on concrete fasteners
- FM Approved with the following brace members: Type A Solid Strut (2.5 mm or thicker) and 25-50 NB in Sch40/EN 10255H Pipe

Material: Steel

Part Number	Finish	Hole Size HS	Width W	Thickness T	A	B	C	D	E	UL Listed Load
CSBU1HDN	Hot-Dip Galvanized	14.3 mm	49 mm	5 mm	52 mm	33 mm	35 mm	32 mm	44 mm	8896 N
CSBU1N	Electrogalva-nized	13 mm	49 mm	5 mm	52 mm	33 mm	35 mm	32 mm	44 mm	8896 N
CSBU2HDN	Hot-Dip Galvanized	21 mm	49 mm	5 mm	52 mm	33 mm	35 mm	32 mm	44 mm	8896 N
CSBU2N	Electrogalva-nized	20.6 mm	49 mm	5 mm	52 mm	33 mm	35 mm	32 mm	44 mm	8896 N

NVENT CADDY SPEED LINK CATENARY SPOOL KITS





The nVent CADDY Speed Link Catenary Spool Kit offers an all-in-one, tested system for secure overhead installations with specified load ratings. This kit, featuring durable steel wire and tool-free locking devices, simplifies transport and reduces inventory. Its keyless release allows for easy, glove-friendly adjustments, ensuring a low-profile and reliable finish every time.

Features

- Kit includes spool of Speed Link steel wire, Speed Link SLK tool-free locking devices, tie wire anchors and masonry drill bit, packaged together, simplifying transportation to the jobsite and reducing inventory
- Wire rope constructed from seven bundles of seven strands each of steel aircraft wire
- Push/pull keyless release allows easy adjustments of the locking device
- Keyless release tubes are easy to operate while wearing gloves
- Low-profile locking device minimizes visual impact
- Cable spread of 90 degrees allows positioning the device closer to the load
- Double-sided locking mechanism enables simple height adjustment

Material: Steel, Zinc Alloy, Polypropylene
Finish: Electrogalvanized, Hot-Dip Galvanized
Wire Rope Diameter: 2 mm/3 mm

Part Number	Wire Rope Diameter mm	Wire Rope Length m	Locking Devices qty	Tie Wire Anchors qty	Masonry Drill Bit qty
SLKC2L300MPACK	2.00	300	30	60	1
SLKC2L500MPACK	2.00	500	50	100	1
SLKC3L300MPACK	3.00	300	30	100	1

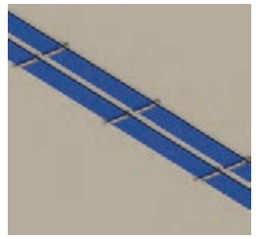
The features of this box allows end-users to pull and cut every length of wire that is needed without having to take the spool out of the box. This product is also ideal for rework in situations where custom lengths of wire might be needed.

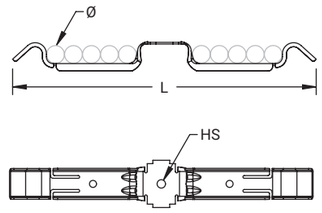
Safe Working Load (Span)			
Wire Rope Diameter mm	Preload / Cable Tension N	Point Load F1 (kg)	Distributed Load F2 (kg)
2.00	100	4.50	9.00
3.00	200	12.00	19.00

Maximum Unsupported Span : 6 m
Static Load Safety Factor: 5:1

METAL PRESSURE CLIP







The nVent CADDY Metal Pressure Clip offers a fast and tool-free solution for securing cables, conduits, and tubes to metal surfaces. Its pressure-based design allows for quick push-on installation, providing a reliable and vibration-resistant hold. This clip simplifies cable management and ensures a secure and organized installation.

Features

- Ideal for smaller runs of cables
- Flexible clip retains shape and allows for cables to be inserted after installation
- Rounded edges help prevent cable damage
- Cables are neatly installed providing a consistent and professional appearance
- Low profile allows for installations in tight spaces

Finish: nVent CADDY Armour
Material: Spring Steel

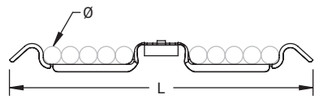
Part Number	Article Number	Cable Capacity	Hole Size HS	Length L
PKM10H6	182045	10	7.1 mm	171.5 mm
PKM16H6	182047	16	7.1 mm	233.5 mm

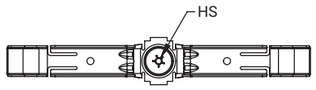
Supports cable diameters up to 1/2" (13 mm) when installed with a standard 1/4" (6 mm) washer.

METAL PRESSURE CLIP WITH NAIL GUN INSERT









The nVent CADDY Metal Pressure Clip with Nail Gun Insert offers a hands-free and rapid solution for securing cables. Designed for use with gas or battery-actuated nail guns, this clip attaches to the tool's nozzle, enabling installation without direct hand contact. This method is ideal for smaller cable runs and allows for installation from the floor using a pole, reducing the need for ladders. The flexible clip retains its shape, allowing cables to be inserted after installation, and its rounded edges help prevent cable damage, ensuring a neat and professional appearance even in tight spaces.

Features

- Clips onto nozzle of gas or battery-actuated nail guns allowing for hands-off installation at structure or from the floor using a pole
- Ideal for smaller runs of cables
- Flexible clip retains shape and allows for cables to be inserted after installation
- Rounded edges help prevent cable damage
- Cables are neatly installed providing a consistent and professional appearance
- Low profile allows for installations in tight spaces

Finish: nVent CADDY Armour
Material: Spring Steel, Nylon

Part Number	Article Number	Cable Capacity	Diameter Ø	Hole Size HS	Length L
PKM10H3GBSF	182053	10	10 mm	3 mm	171.5 mm
PKM16H3GBSF	182054	16	10 mm	3 mm	233.5 mm

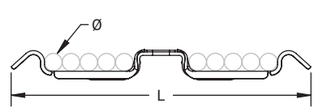
Supports cable diameters up to 1/2" (13 mm) when installed with a standard 1/4" (6 mm) washer.
Nail gun insert is compatible with BeA® CN60-688ES, Hilti® BX 3, GX 3, DEWALT® Trak-It C3, SPIT® PULSA 40E, 800E, 700, 1000 or equivalent nailers.
Please consult with the nail manufacturer to evaluate the static load of the nail and type of concrete used for the installation.

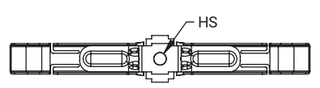
Non-continuous Supports

METAL PRESSURE CLIP, FIRE-RATED









The nVent CADDY Fire-Rated Metal Pressure Clip provides a fast and reliable solution for securing cables, conduits, and tubes to metal surfaces in fire-rated assemblies. This clip's pressure-based design allows for quick, tool-free installation while maintaining the integrity of fire-stopping systems. Its robust construction and fire-rated properties ensure secure cable management and compliance with safety regulations in critical applications.

Features

- Includes insert for E30 fire rating according to DIN 4102-12
- Ideal for smaller runs of cables
- Flexible clip retains shape and allows for cables to be inserted after installation
- Rounded edges help prevent cable damage
- Cables are neatly installed providing a consistent and professional appearance
- Low profile allows for installations in tight spaces

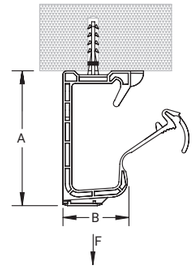
Finish: nVent CADDY Armour
Material: Spring Steel

Part Number	Article Number	Hole Size HS	Length L
PKM16H6IN	182049	7.2 mm	233.5 mm

Fire rating test conducted with cable types listed. Equivalent halogen free safety cable can be used according to national guidelines.

CABLE HOLDER WITH PLUG





The nVent CADDY Cable Holder with Plug offers a simple and secure solution for managing and supporting individual cables. Featuring an integrated plug for easy insertion into various mounting surfaces or pre-drilled holes, this holder provides a quick and reliable way to organize and restrain cables, preventing them from dangling or becoming entangled.

Features

- Easy-to-open latch allows cables to be added or removed quickly after installation
- Tool-free push-in installation after hole has been drilled into the concrete
- Can be mounted to a wall using the slot on the side of the holder with fixing hardware (not included)
- Plastic conduit clips can be attached to the holder allowing the support of cables and conduits using a single hole in the concrete
- Halogen free
- UV-stabilized

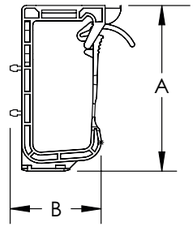
Material: Polypropylene

Part Number	Article Number	Temperature	Cable Capacity	Cable Diameter	Drill Hole Diameter	Drill Hole Depth	A	B	Static Load F
SCSH25	800043	–10 to 85°C	40	10 mm	6 mm	30 mm	96 mm	46 mm	190 N

Non-continuous Supports

CABLE HOLDER FOR NAIL GUN





The nVent CADDY Cable Holder for Nail Gun provides a rapid and hands-free solution for securing individual cables. Designed for use with gas or battery-actuated nail guns, this holder attaches to the tool, allowing for efficient installation without direct hand contact. Ideal for quickly securing single cables during rough-in, it enhances speed and reduces the need for manual fastening.

Features

- Easy-to-open latch allows cables to be added or removed quickly after installation
- Clips onto nozzle of gas or battery-actuated nail guns allowing for hands-off installation at structure or from the floor using a pole
- Can also be installed with a screw to accommodate even more structures
- Plastic conduit clips can be attached to the holder allowing the support of cables and conduits using a single hole in the concrete
- Halogen free
- UV-stabilized

Material: Polypropylene

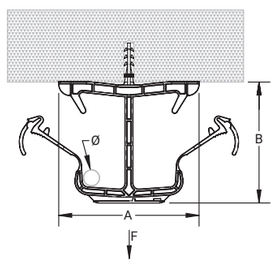
Part Number	Article Number	Temperature	Cable Capacity	Cable Diameter	Hole Size HS	A	B
SCSHS35	800045	–10 to 85°C	35	10 mm	3.5 mm	96 mm	46 mm

Works with the majority of nailers including Hilti® BX3-ME, Hilti® GX3-ME, SPIT® PULSA 700E, SPIT® PULSA 800E, Würth® DIGA CS-2 POWER or equivalent nail guns.

DOUBLE CABLE HOLDER WITH PLUG







The nVent CADDY Double Cable Holder with Plug offers a convenient and secure solution for managing and supporting two individual cables simultaneously. Featuring an integrated plug for easy insertion into various mounting surfaces or pre-drilled holes, this holder provides a quick and reliable way to organize and restrain multiple cables, preventing clutter and ensuring a tidy installation.

Features

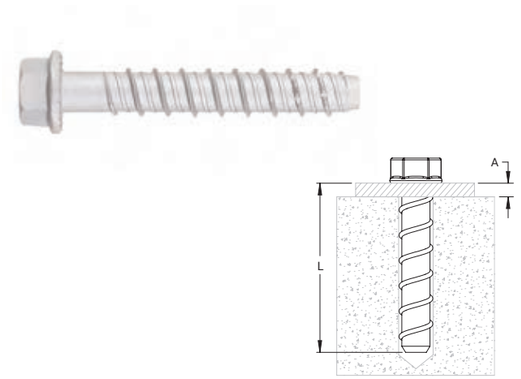
- Easy-to-open latch allows cables to be added or removed quickly after installation
- Tool-free push-in installation after hole has been drilled into the concrete
- Plastic conduit clips can be attached to the holder allowing the support of cables and conduits using a single hole in the concrete
- Halogen free
- UV-stabilized

Material: Polypropylene

Part Number	Article Number	Temperature	Cable Capacity	Diameter Ø	Drill Hole Diameter	Drill Hole Depth	A	B	Static Load F
SCSH50	800044	–10 to 85°C	80	10 mm	6 mm	30 mm	108 mm	96 mm	200 N

Fasteners

BSZ-SU CONCRETE SCREW



The nVent CADDY BSZ-SU Concrete Screw offers a high-performance and reliable anchoring solution directly into concrete, brick, and block. Featuring a countersunk head for flush mounting, this screw self-taps its own threads, ensuring a strong and secure hold with efficient installation. Its design is ideal for applications requiring a clean, level surface finish.

Features

- Fire resistance class R30-R120 for design of anchorages under exposure to fire
- ETA assessed for anchoring in cracked and non-cracked concrete
- Atlantis finish is suitable for outdoor installation

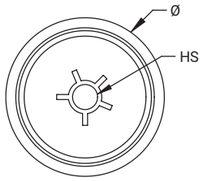
Finish: Atlantis
Material: Steel

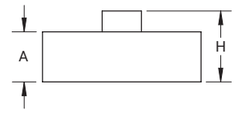
Part Number	Article Number	Drill Bit Diameter	Screw Length L	Embedment Depth	A	Torque TQ
BSZSU06040ZL	402605	6 mm	40 mm	35 mm	5 mm	10 N·m

NAIL GUN INSERT









The nVent CADDY Nail Gun Insert provides a specialized adapter for gas or battery-actuated nail guns, enabling the rapid installation of various nVent CADDY clips and fasteners without direct hand contact. This insert attaches to the tool's nozzle, allowing for faster and potentially safer overhead installations from the floor using extension poles, reducing the need for ladders and improving overall efficiency.

Features

- Clips onto nozzle of gas or battery-actuated nail guns allowing for hands-off installation at structure or from the floor using a pole
- Ideal for fastening junction boxes, electrical boxes and cable trunking
- Works with nVent CADDY Metal Pressure Clip
- Halogen free

Material: Nylon

Part Number	Article Number	Diameter Ø	A	Height H	Hole Size HS
IGBSF	182052	19 mm	6 mm	8.5 mm	3 mm

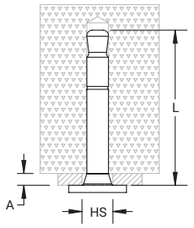
Nail gun insert is compatible with BeA® CN60-688ES, Hilti® BX 3, GX 3, DEWALT® Trak-It C3, SPIT® PULSA 40E, 800E, 700, 1000 or equivalent nailers.

Fasteners

LIGHT DUTY EXPANSION ANCHOR







The nVent CADDY Light Duty Expansion Anchor provides a reliable and cost-effective solution for fastening into concrete, brick, and block. This anchor expands upon tightening the screw or bolt, creating a secure hold for light-duty applications. Its simple design ensures easy and quick installation.

Features

- Ideal for use with fire rated clips and clamps
- Fire resistance class R30-R120 for design of anchorages under exposure to fire
- ETA assessed for anchoring in cracked and non-cracked concrete

Finish: Electrogalvanized
Material: Steel

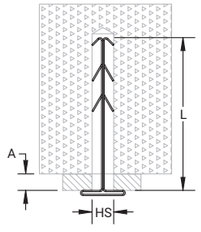
Part Number	Article Number	Drill Hole Depth	A	Drill Bit Diameter Ø	Hole Size HS
SCMND	800071	45 mm	5 mm Max	6"	7.2 mm

Drill Hole Depth represents the maximum depth and should be adjusted based on the thickness of product being fixed.
The maximum load per fixing point for multiple use for non-structural applications may, depending on national regulations, be below the approved load of the anchor. The approved loads per fixing point are regulated for their respective countries in the ETAG 001, Part 6.
Total safety factor as per ETAG 001 included (Ym and Yf).

LIGHT DUTY PUSH-IN ANCHOR







The nVent CADDY Light Duty Push-In Anchor offers a fast and easy solution for creating secure fastening points in concrete, brick, and block. This anchor is installed simply by pushing it into a pre-drilled hole, providing an immediate and reliable hold for light-duty applications without the need for additional setting tools or tightening.

Features

- Ideal for use with fire rated clips and clamps
- Tool-free push-in installation after hole has been drilled into the concrete
- Fire resistance class R30-R120 for design of anchorages under exposure to fire
- ETA assessed for anchoring in cracked and non-cracked concrete

Material: Stainless Steel 301 (EN 1.4310)

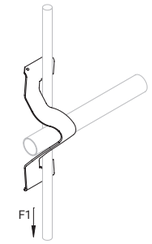
Part Number	Article Number	Drill Hole Depth	Hole Size HS	A
SCMDSN	800070	36 mm	6 mm	10 mm Max

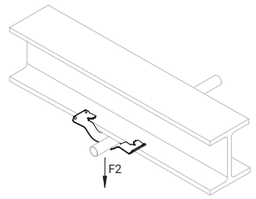
Drill Hole Depth represents the maximum depth and should be adjusted based on the thickness of product being fixed.
The maximum load per fixing point for multiple use for non-structural applications may, depending on national regulations, be below the approved load of the anchor. The approved loads per fixing point are regulated for their respective countries in the ETAG 001, Part 6.
Total safety factor as per ETAG 001 included (Ym and Yf).

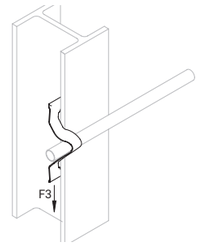
Cable/Conduit Fixings

CABLE/CONDUIT CLIP









The nVent CADDY Cable/Conduit Clip offers a tool-free solution for supporting conduit to rod, wire, or flange. Versatile in application, it also accommodates flexible metallic tubing, armored cable, portable cables, control tubes, and communications cable. Available for various conduit types (EMT, rigid, ENT, IMT, MC/AC, and aluminum), this clip simplifies installation and provides reliable support.

Features

- Supports conduit to rod, wire or flange
- No installation tools required

Finish: nVent CADDY Armour
Material: Spring Steel

Part Number	Article Number	Outer Diameter OD	Static Load 1 F1	Static Load 2 F2	Static Load 3 F3	Packing Quantity	Certifications
K8	170660	18 mm Max	220 N	445 N	70 N	1	cUL, UL
K12	170670	24 mm Max	220 N	445 N	70 N	1	cUL, ITB, UL
K16	170680	30 mm Max	220 N	445 N	70 N	1	cUL, ITB, UL
K20	170690	42 mm Max	220 N	445 N	100 N	1	cUL, ITB, UL

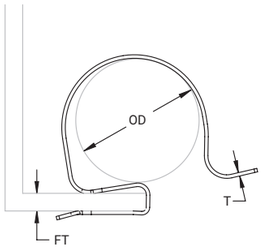
May require dedicated drop wire/rod and EC311. Consult local authority.
For horizontal application only when installing conduit.

Cable/Conduit Fixings

SC CABLE SNAP CLIP







The nVent CADDY SC Cable Snap Clip is designed for easy support of cables and plastic conduit from flanges, requiring only a hammer for installation.

Features

- Easily supports cable and plastic conduit from flanges
- Requires only a hammer to install

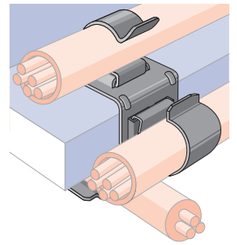
Finish: nVent CADDY Armour
Material: Spring Steel

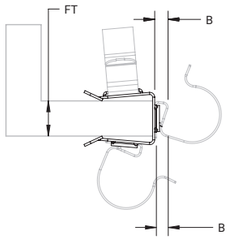
Part Number	Article Number	Flange Thickness FT	Outer Diameter OD	Thickness T	Packing Quantity
24SC67	187510	2 - 4 mm	6 - 7 mm	0.6 mm	1
24SC78	187710	2 - 4 mm	7 - 8 mm	0.6 mm	1
24SC89	187530	2 - 4 mm	8 - 9 mm	0.6 mm	1
24SC910	187750	2 - 4 mm	9 - 10 mm	0.6 mm	1
24SC1011	187550	2 - 4 mm	10 - 11 mm	0.6 mm	1
24SC1214	187570	2 - 4 mm	12 - 14 mm	0.6 mm	1
24SC1518	187590	2 - 4 mm	15 - 18 mm	0.6 mm	1
24SC2530	187630	2 - 4 mm	25 - 32 mm	0.6 mm	1
24SC1924	187610	2 - 4 mm	19 - 24 mm	0.6 mm	1
47SC67	187500	4 - 7 mm	6 - 7 mm	0.6 mm	1
47SC78	187720	4 - 7 mm	7 - 8 mm	0.6 mm	1
47SC89	187520	4 - 7 mm	8 - 9 mm	0.6 mm	1
47SC910	187760	4 - 7 mm	9 - 10 mm	0.6 mm	1
47SC1011	187540	4 - 7 mm	10 - 11 mm	0.6 mm	1
47SC1214	187560	4 - 7 mm	12 - 14 mm	0.6 mm	1
47SC1518	187580	4 - 7 mm	15 - 18 mm	0.6 mm	1
47SC2530	187620	4 - 7 mm	25 - 32 mm	0.6 mm	1
47SC1924	187600	4 - 7 mm	19 - 24 mm	0.6 mm	1
812SC67	187640	8 - 12 mm	6 - 7 mm	0.6 mm	1
812SC78	187730	8 - 12 mm	7 - 8 mm	0.6 mm	1
812SC89	187650	8 - 12 mm	8 - 9 mm	0.6 mm	1
812SC910	187770	8 - 12 mm	9 - 10 mm	0.6 mm	1
812SC1011	187660	8 - 12 mm	10 - 11 mm	0.6 mm	1
812SC1214	187670	8 - 12 mm	12 - 14 mm	0.6 mm	1
812SC1518	187680	8 - 12 mm	15 - 18 mm	0.6 mm	1

Cable/Conduit Fixings

SCA CABLE SNAP CLIP ADAPTOR







The nVent CADDY SCA Cable Snap Clip Adaptor enables the SC Cable Snap Clip to be used on a wider range of flange thicknesses. It easily snaps onto the SC Cable Snap Clip, expanding its application possibilities.

Features

- Use with 24SC series snap clips to accommodate thicker flanges
- Supports up to three snap clips
- Requires only a hammer to install

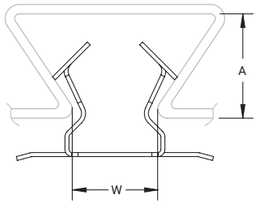
Finish: nVent CADDY Armour
Material: Spring Steel

Part Number	Article Number	Flange Thickness FT	B
SCA	160510	13 - 20 mm	2 - 4 mm

SCD DOVETAIL MOUNT CABLE SNAP CLIP ADAPTOR







The nVent CADDY SCD Dovetail Mount Cable Snap Clip Adaptor allows the SC Cable Snap Clip to be mounted to various dovetail inserts, providing a secure and simple way to attach the SC Cable Snap Clip to these specific mounting systems.

Features

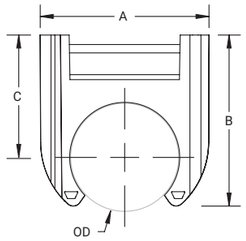
- Adaptor to fix up to two 24SC snap clips to a dovetail deck
- Provides support for low voltage cables

Finish: nVent CADDY Armour
Material: Spring Steel

Part Number	Article Number	Width W	A
SCD1217	188170	12 - 17 mm	14 mm Min
SCD1722	188180	17 - 22 mm	14 mm Min

PLASTIC CONDUIT CLIP





The nVent CADDY Plastic Conduit Clip provides a lightweight and cost-effective solution for securing and routing various types of plastic conduit, including rigid, flexible, and corrugated options. Its design ensures a firm hold while protecting the conduit, and it can be easily attached to different surfaces using appropriate fasteners. This clip offers a simple and efficient way to manage plastic conduit installations.

Features

- Push-in installation of conduit
- Compatible with different structural attachment components to accommodate a variety of structures including concrete, brick, plywood, cable tray, spring steel fasteners and threaded rod
- Snap-together clips can be easily assembled to limit the number of fixing points to structure
- Non-flame propagating per IEC 61386-25
- Halogen free
- UV-stabilized

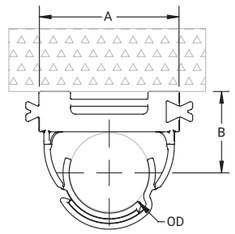
Material: Acrylonitrile Butadiene Styrene
Temperature: –10 to 80°C

Part Number	Article Number	Outer Diameter OD	A	B	C
SCEC16HO	800000	16 mm	26 mm	27 mm	20 mm
SCEC20HO	800001	20 mm	30 mm	31 mm	22 mm
SCEC25HO	800002	25 mm	35 mm	34 mm	24 mm
SCEC32HO	800003	32 mm	43 mm	39 mm	28 mm
SCEC40HO	800004	40 mm	54 mm	45 mm	32 mm
SCEC50HO	800005	50 mm	66 mm	56 mm	38 mm

FLEXIBLE PLASTIC CONDUIT CLAMP







The nVent CADDY Flexible Plastic Conduit Clamp is specifically designed to securely support and route flexible plastic conduit. Its design accommodates the unique characteristics of flexible conduit, providing a reliable hold while allowing for necessary movement and bending. This clamp offers a simple and effective solution for managing flexible conduit installations.

Features

- Push-in installation of conduit
- Flexible clamping design accommodates multiple conduit sizes using one clamp
- Compatible with different structural attachment components to accommodate a variety of structures including concrete, brick, plywood, cable tray, spring steel fasteners and threaded rod
- Snap-together clips can be easily assembled to limit the number of fixing points to structure
- Low profile allows for installations in tight spaces
- Non-flame propagating per IEC 61386-25
- UV-stabilized

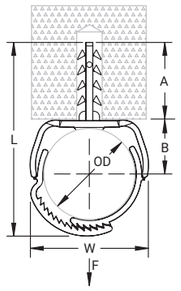
Material: Polypropylene
Temperature: –10 to 85°C

Part Number	Article Number	Outer Diameter OD	A	B
SCFC1620	800020	16 - 20 mm	32 mm	16 - 18 mm
SCFC2025	800021	20 - 25 mm	32 mm	18.0 - 20.5 mm
SCFC2532	800022	25 - 32 mm	32 mm	20.5 - 24 mm
SCFC3240	800023	32 - 40 mm	32 mm	24 - 28 mm
SCFC4050	800024	40 - 50 mm	32 mm	28 - 33 mm

FLEXIBLE PLASTIC CONDUIT CLAMP WITH PLUG







The nVent CADDY Flexible Plastic Conduit Clamp with Plug offers a dependable method for securing flexible conduits. Featuring an integrated plug, this clamp effectively seals the mounting point, preventing the intrusion of dust and moisture to enhance the reliability of electrical installations. Its lightweight and non-conductive composition makes it a versatile choice for various applications.

Features

- Push-in installation of conduit
- Flexible clamping design accommodates multiple conduit sizes using one clamp
- Tool-free push-in installation after hole has been drilled into the concrete or brick
- Low profile allows for installations in tight spaces
- Non-flame propagating per IEC 61386-25
- UV-stabilized

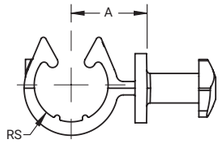
Material: Polypropylene
Temperature: –10 to 85°C

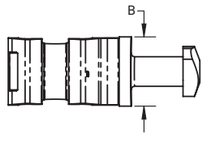
Part Number	Article Number	Outer Diameter OD	Length L	Width W	A	B	Static Load F
SCUSA1620	800025	16 - 20 mm	54 mm	21.5 mm	21 mm	11.5 mm	170 N
SCUSA2025	800026	20 - 25 mm	61 mm	26.1 mm	21 mm	14.3 mm	170 N
SCUSA2532	800027	25 - 32 mm	81 mm	32.6 mm	21 mm	18.3 mm	170 N
SCUSA3240	800028	32 - 42 mm	82 mm	45 mm	21 mm	23 mm	170 N

THREADED ROD CLIP









The nVent CADDY Threaded Rod Clip offers a tool-free solution for supporting conduit to rod, wire, or flange. It allows for quick attachment and easy adjustments, making it versatile for various applications, including supporting flexible metallic tubing, armored cable, and communication cables. This clip is designed for easy installation and relocation, providing optimal support for high-performance data cables.

Features

- For installation of plastic conduit clamps and clips on threaded rod
- Allows for conduit runs either parallel or perpendicular to the threaded rod
- Halogen free
- UV-stabilized

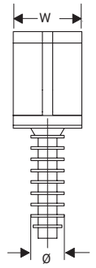
Material: Nylon

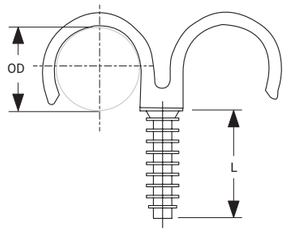
Part Number	Article Number	Temperature	Rod Size RS	A	B
SCSGC	800036	–20 to 85°C	8, 10	11 mm	10 mm

RING FRF /2 DOUBLE PIPE CLIP WITH PLUG









The nVent CADDY RING FRF /2 Double Pipe Clip with Plug offers a secure and efficient solution for managing and supporting two pipes simultaneously. Featuring an integrated plug, this clip effectively seals the mounting point, preventing the intrusion of dust and moisture to enhance the reliability of plumbing and mechanical installations. Its robust design and materials make it a versatile choice for various applications.

Features

- Hammer in plastic clip to hold 2 pipes/conduit
- Fix into drilled hole in brick or concrete

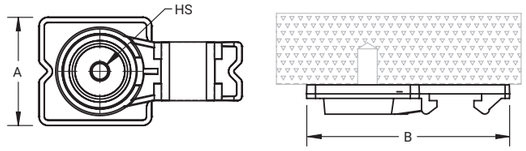
Material: Polyamide

Part Number	Article Number	Outer Diameter OD	Length L	Width W	Diameter Ø	Drill Bit Diameter
FRF016X2	571200	16 mm	30 mm	20 mm	9.8 mm	8 mm
FRF018X2	571210	18 mm	30 mm	20 mm	9.8 mm	8 mm
FRF020X2	571220	20 mm	30 mm	20 mm	9.8 mm	8 mm
FRF022X2	571230	22 mm	30 mm	20 mm	9.8 mm	8 mm
FRF025X2	571240	25 mm	30 mm	20 mm	9.8 mm	8 mm
FRF028X2	571250	28 mm	30 mm	20 mm	9.8 mm	8 mm

Cable/Conduit Fixings

CONNECTING PLATE FOR NAIL GUN





The nVent CADDY Connecting Plate for Nail Gun facilitates the installation of plastic conduit clamps and clips on concrete surfaces using a nail gun. Designed for safe, hands-off installation by clipping onto the nail gun nozzle, it supports up to three plastic conduit clips or clamps with a single attachment.

Features

- For installation of plastic conduit clamps and clips on concrete surface using a nail gun
- Clips onto the nail gun nozzle allowing for a safe hands-off installation
- Supports up to three plastic conduit clips or clamps with a single structural attachment
- Halogen free
- UV-stabilized

Material: Nylon

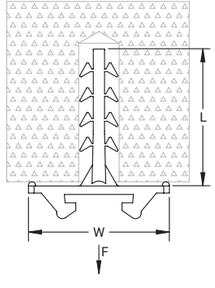
Part Number	Article Number	Temperature	Hole Size HS	A	B
SCESP	800038	–20 to 85°C	3.5 mm	24 mm	45 mm

Works with the majority of nailers including Hilti® BX3-ME, Hilti® GX3-ME, SPIT® PULSA 700E, SPIT® PULSA 800E, Würth® DIGA CS-2 POWER or equivalent nail guns.

PUSH-IN INSERT FOR CONCRETE







The nVent CADDY Push-In Insert for Concrete facilitates the installation of plastic conduit clamps and clips directly into concrete. This insert offers a tool-free, push-in installation process after a hole has been drilled, supporting up to three plastic conduit clips or clamps with a single attachment. It can also secure cable bundles in concrete or brick walls using cable ties.

Features

- For installation of plastic conduit clamps and clips into concrete
- Tool-free push-in installation after hole has been drilled into the concrete
- Supports up to three plastic conduit clips or clamps with a single structural attachment
- Can also be used to fasten cable bundles in concrete or brick walls using cable ties
- Halogen free
- UV-stabilized

Material: Nylon
Temperature: –20 to 85°C

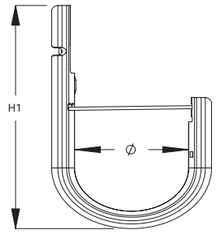
Part Number	Article Number	Width W	Drill Hole Diameter	Drill Hole Depth	Static Load F
SCESD30	800031	25 mm	6 mm	26 mm	250 N
SCESD45	800032	25 mm	6 mm	47 mm	250 N
SCESD80	800033	25 mm	6 mm	82 mm	250 N

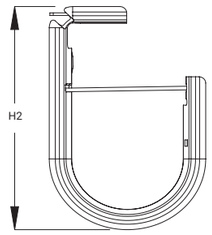
Data Cable Supports

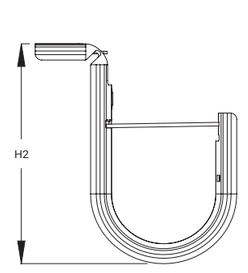
IMPROVED NVENT CADDY CAT HP J-HOOK











nVent CADDY Cat HP J-Hooks are the foundation of the nVent CADDY Cat HP System. The revamped nVent CADDY Cat HP J-Hook offers contractors three unique, UL-certified attachment methods out of the box—wall, ceiling, and threaded rod installations. This added functionality enables contractors to reduce SKU inventory while maintaining efficiency and continued progress on the jobsite with the most common structural attachment methods.

The modernized design of the nVent CADDY Cat HP J-Hook is engineered to provide optimal support and protection for today's rapidly evolving, high-performing low voltage cable. Contractors can feel confident utilizing the nVent CADDY Cat HP J-Hook due to its installation versatility, superior cable support and protection, and technical certifications.

Features

- Versa-Mount Technology: Innovative attachment design provides multiple structural and installation methods for wall, ceiling, and threaded rod mounting applications
- Ideal for unknown jobsite applications or attachment methods
- Provides optimal support for high-performance data cable—including category cable, Power over Ethernet (PoE), and fiber optic
- Industry-leading bend radius designed to protect high-performance data installations
- Provides superior fill capacity and load rating
- Compliant with UL® 2043 and suitable for use in air handling (plenum) spaces

Finish: Pregalvanized
Material: Steel

Part Number	Article Number	Diameter Ø	Area	Cable Capacity, Cat 5e	Cable Capacity, Cat 6	Cable Capacity, Cat 6A	Height 1 H1	Height 2 H2	Static Load F
CAT21HP	181188	33.3 mm	1174 mm²	50	40	25	122.2 mm	103.6 mm	267 N
CAT32HP	181062	50 mm	2561 mm²	90	60	35	130.8 mm	112.3 mm	267 N

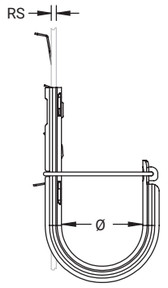
Non-continuous supports may not exceed spacing of 5'; (1.5 m) per TIA 569-C.9.7 and EN 50174-2.
Cable capacity is calculated based on a 70% fill rate.

Data Cable Supports

NVENT CADDY CAT HP J-HOOK WITH MULTI-FUNCTION CLIP







The nVent CADDY Cat HP J-Hook with Multi-Function Clip delivers a versatile and efficient solution for managing and supporting high-performance data and communication cables. The integrated multi-function clip allows for adaptable mounting options to various structures, streamlining installations and promoting organized cable pathways.

Features

- Quick attachment to threaded rod or wire
- Fully adjustable and easy to relocate to accommodate changes once installed
- Provides optimal support for high-performance data cable, up to and including Cat 5e, Cat 6, Cat 6A, Cat 7 and fibre optic
- Provides superior fill capacity and load rating over most other non-continuous cable support alternatives
- Rounded edges on J-Hooks provide proper bend radius support for high performance data cables
- Cost effective alternative to expensive cable tray

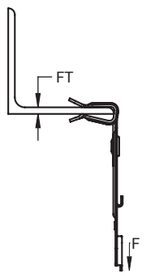
Finish: Pregalvanized, nVent CADDY Armour
Material: Steel, Spring Steel

Part Number	Diameter Ø	Area	Cable Capacity, Cat 5e	Cable Capacity, Cat 6	Cable Capacity, Cat 6A	Wire Size	Rod Size RS	Static Load
CAT21HP4Z34	33.3 mm	1174 mm²	50	40	25	3.9 - 4.8 mm	4, 6, 8, 10	130 N
CAT32HP4Z34	50 mm	2561 mm²	90	60	35	3.9 - 4.8 mm	4, 6, 8, 10	130 N

Non-continuous supports may not exceed spacing of 5' (1.5 m) per TIA 569-C.9.7 and EN 50174-2.
Cable capacity is calculated based on a 70% fill rate.

IMPROVED NVENT CADDY CAT HP J-HOOK MOD CLIP WITH HAMMER-ON FLANGE CLIP





The Improved nVent CADDY Cat HP Mod Clip J-Hook Clip with Hammer-On Flange Clip simplifies beam flange installation with an easy-to-use design. By eliminating the need for screws, rivets or special tools during assembly, installation time and cost is reduced. A simple clip onto nVent CADDY Cat HP components ensures a secure hold—ultimately enhancing rigidity and stability while minimizing inventory impact and providing flexibility on the job site.

Features

- Requires only a hammer to install
- Works with nVent J-Hook Versa-Mount technology from nVent CADDY

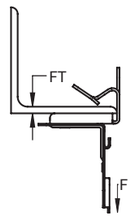
Finish: nVent CADDY Armour
Material: Spring Steel

Part Number	Flange Thickness FT	Static Load F
CATHPM24SM	3.18 – 6.35 mm	890 kg
CATHPM58SM	8.0 – 12.7 mm	890 kg
CATHPM912SM	12.70 – 19.05 mm	890 kg

Data Cable Supports

IMPROVED NVENT CADDY CAT HP J-HOOK MOD CLIP WITH HAMMER-ON FLANGE CLIP, SWIVEL





The Improved nVent CADDY Cat HP J-Hook Mod Clip with Hammer-On Flange Clip, Swivel combines the ease of hammer-on installation without the need for screws or rivets and features a 360-degree rotation for versatile cable routing. This stable cable management solution provides ultimate flexibility on the job and while minimizing inventory impact.

Features

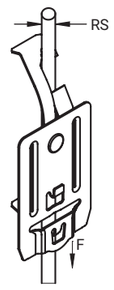
- Requires only a hammer to install
- Works with nVent J-Hook Versa-Mount technology from nVent CADDY

Finish: nVent CADDY Armour
Material: Spring Steel

Part Number	Flange Thickness FT	Static Load F
CATHPM24	3.18 - 6.35 mm	334 kg
CATHPM58	8.0 - 12.7 mm	334 kg
CATHPM912	12.70 - 19.05 mm	334 kg

IMPROVED NVENT CADDY CAT HP J-HOOK MOD CLIP WITH ROD/WIRE CLIP





Improved nVent CADDY Cat HP Mod Clip J-Hook with Rod/Wire Clip allows for quick attachment to threaded rod or wire without screws or special tools. Enjoy enhanced stability and customization for efficient cable management while gaining ultimate flexibility on the job and minimizing inventory impact.

Features

- Tool-free assembly
- Works with nVent J-Hook Versa-Mount technology from nVent CADDY

Finish: nVent CADDY Armour
Material: Spring Steel

Part Number	Rod Size RS	Wire Size	Static Load F
CATHPM4Z34	M4, M6, M8, M10, M12	4.8 - 6.4 mm	89 kg

Data Cable Supports

IMPROVED NVENT CADDY CAT HP J-HOOK MOD CLIP WITH C PURLIN CLIP





The Improved nVent CADDY Cat HP Mod Clip J-Hook with C Purlin Clip allows for hammer-on or floor installation with the VAFT tool, ultimately simplifying the process. Enhance cable management with the stability and customization options from the C Purlin Clip while minimizing inventory impact and providing ultimate flexibility on the job.

Features

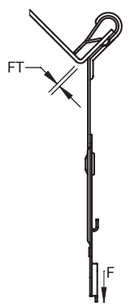
- Hammer-on or install from the floor with the VAFT tool
- No screws, rivets or special tools required for assembly

Finish: nVent CADDY Armour
Material: Spring Steel

Part Number	Flange Thickness FT	Static Load F
CATHPMVF14	1.50 - 6.35 mm	712 kg

IMPROVED NVENT CADDY CAT HP J-HOOK MOD CLIP WITH Z PURLIN CLIP





Improved nVent CADDY Cat HP Mod Clip J-Hook with Z Purlin Clip offers easy hammer-on installation without the need for screws or special tools. Provides stability, customization, and color options for efficient cable management and ultimate flexibility on the job while minimizing inventory impact.

Features

- Requires only a hammer to install
- Works with nVent J-Hook Versa-Mount technology from nVent CADDY

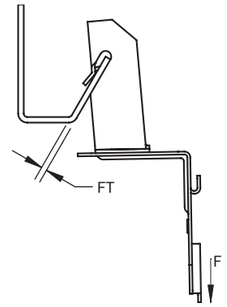
Finish: nVent CADDY Armour
Material: Spring Steel

Part Number	Flange Thickness FT	Static Load F
CATHPMAF14	1.60 - 6.35 mm	445 kg

Data Cable Supports

IMPROVED NVENT CADDY CAT HP J-HOOK MOD CLIP WITH Z PURLIN CLIP, SWIVEL





Improved nVent CADDY Cat HP Mod Clip J-Hook with Z Purlin Clip provides offers easy hammer-on installation without the need for screws or special tools. Enjoy enhanced stability and customization for efficient cable management while gaining ultimate flexibility on the job and minimizing inventory impact.

Features

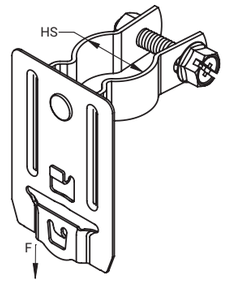
- Requires only a hammer to install
- Works with nVent J-Hook Versa-Mount technology from nVent CADDY

Finish: Pregalvanized, nVent CADDY Armour
Material: Steel, Spring Steel

Part Number	Flange Thickness FT	Static Load F
CATHPM123	1.52 - 2.54 mm	445 kg

IMPROVED NVENT CADDY CAT HP J-HOOK MOD CLIP WITH PEDESTAL CLAMP





Improved nVent CADDY Cat HP Mod Clip J-Hook with Pedestal Clamp simplifies installation to pedestals under raised floors. Enjoy enhanced stability and customization for efficient cable management while gaining ultimate flexibility on the job and minimizing inventory impact.

Features

- Listed for use with flexible conduit, cable, or tubing
- Requires no screws, rivets or special tools for assembly
- Works with nVent J-Hook Versa-Mount technology from nVent CADDY

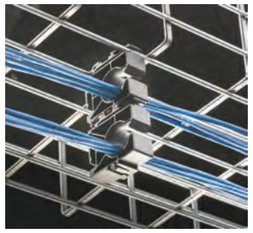
Finish: Electrogalvanized, nVent CADDY Armour
Material: Steel, Spring Steel

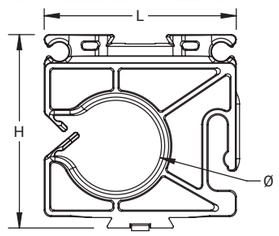
Part Number	Pedestal Size	Static Load F
CATHPMCD0B	19.05 mm Round	
CATHPMCD1B	19.05 mm Square, 25 mm Round	70 kg
CATHPMCD2B	22.22 mm Square	
CATHPMCD3B	38.1 mm Round	
CATHPMCD2.5B	28.57 mm Square	

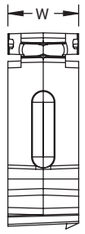
Data Cable Supports

LOW VOLTAGE ACCESSORY CLIP









When there is no other pathway for the growing amount of cable that must be accommodated in a building, our Low Voltage Accessory Clip (LVAC) is the answer. Part of the larger nVent CADDY datacom family of products, the LVAC will connect to the bottom or side of an existing pathway so you can accommodate more cable without rethinking the path. Quick, tool-free installation makes it easy to install in tight spaces.

Increase your cable routing and hanging options with the Low Voltage Accessory Clip.

Features

- Ideal for low voltage applications, such as security, video, Wireless Access Protocol (WAP), Power over Ethernet (PoE), fire, and control wire
- Tool-free installation to existing wire basket pathway made easy with side retaining flaps
- Designed to fit commonly available wire basket tray with bottom and side mount applications
- Compliant with UL® 2043 and suitable for use in air handling (plenum) spaces

Material: Polypropylene

Part Number	Color	Diameter Ø	Cable Capacity, Cat 5e	Cable Capacity, Cat 6	Cable Capacity, Cat 6A	Height H	Length L	Width W
LVACBA	Black	25.4 mm	22	15	8	60.3 mm	60.3 mm	22.2 mm
LVACRD	Red	25.4 mm	22	15	8	60.3 mm	60.3 mm	22.2 mm

Non-continuous supports may not exceed spacing of 5' (1.5 m) per TIA 569-C.9.7 and EN 50174-2.
Cable capacity is calculated based on a 70% fill rate.

In-Wall Solutions

EASY SNAP GROMMET WITH ANTI-RATTLE PROTECTION





The nVent CADDY Easy Snap Grommet with Anti-Rattle Protection provides a swift and secure method for protecting cables passing through panels or enclosures. Its innovative snap-fit design simplifies installation, requiring no additional tools. Furthermore, the integrated anti-rattle feature ensures a stable and vibration-free cable pathway, safeguarding against wear and noise in dynamic environments.

Features

- Provides anti-rattle protection
- Snap one grommet into standard 1-11/32" field punched hole, or snap two together into any shape factory-punched hole

Material: Polyethylene

Part Number	Copper Tube Size	Outer Diameter
ESGP	1" Max	25 mm

MSP20 METAL STUD PUNCH FOR EASY SNAP GROMMET





The nVent CADDY MSP20 Metal Stud Punch for Easy Snap Grommet offers a dedicated tool for creating clean and consistent mounting holes in metal studs, specifically designed for use with nVent CADDY Easy Snap Grommets. This punch ensures a precise fit for the grommet, simplifying the installation process and contributing to a professional and secure cable management system within metal stud framing. Its robust construction provides durability for repeated use on the job site.

Features

- Punches standard sized holes in metal studs
- Easy Snap Grommet snaps easily into punched hole
- Tool design with offset handles allows punch to work in confined locations and near perpendicular walls
- Lightweight punch makes accurate location of holes easier
- Hardened steel components keep tool sharp longer – less replacement

Material: Steel

Part Number	Article Number	Hole Size
MSP20	188480	34.1 mm

TELESCOPING SCREW GUN BOX BRACKET





The nVent CADDY Telescoping Screw Gun Box Bracket offers a versatile and adjustable solution for mounting electrical boxes. Its telescoping design allows for flexible positioning between studs, simplifying installation and accommodating various framing configurations. Designed for use with a screw gun, this bracket ensures a secure and efficient mounting process, contributing to a professional and reliable electrical installation.

Features

- Can mount multiple boxes
- Notched and marked for easy identification and bending
- Improved design with stamped inch markings and pilot holes accelerates precise box conduit mounting between studs
- Pilot holes allow easy box attachment with a screwdriver
- Requires only a screw gun to install
- Can be mounted to face or inside of stud
- Adjustable for non-standard stud spacing
- Unique, one-piece, break apart design

Finish: Pregalvanized
Material: Steel

Part Number	Article Number	Stud Spacing	Box Depth	Packing Quantity
TSGB16	187190	280 - 458 mm	38 mm, 54 mm	1
TSGB24	187191	432 - 660 mm	38 mm, 54 mm, 63.5 mm	1

TELESCOPING PLUMBING BRACKET





The nVent CADDY Telescoping Bracket provides a flexible and adjustable solution for supporting in-wall components. Its telescoping feature allows for easy positioning between studs or joists, accommodating various installation requirements. This bracket simplifies the process of securing pipes, ensuring stability and proper alignment for efficient and reliable systems.

Features

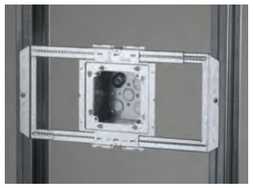
- Notched and marked for easy identification and bending
- Adjustable for non-standard stud spacing
- Can be mounted at multiple depths to face or inside of stud
- Additional pilot holes in bracket allow for easy attachment utilizing multiple standard solutions
- Increased rigidity for heavier-duty applications
- Requires only a screw gun to install

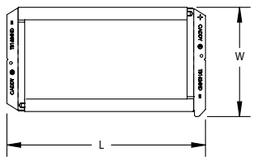
Finish: Pregalvanized
Material: Steel

Part Number	Stud Spacing
TPB1624	400 - 635 mm

HEAVY DUTY TELESCOPING BRACKET









The nVent CADDY Heavy Duty Telescoping Bracket offers robust and adjustable support for heavier mechanical and electrical applications. Its telescoping design provides installation flexibility between structural members, accommodating diverse spacing requirements. Engineered for durability and strength, this bracket ensures secure and reliable support for items such as conduit runs, cable trays, and piping systems in demanding environments.

Features

- Innovative design allows boxes to be added or removed without removing bracket from studs
- Attach boxes quickly and easily with snap-on box mounting plates (sold separately)
- Box mounting plates can be securely snapped in any position along fully extended bracket
- Rigid design eliminates need for far-side support
- Ready to use out of the box, saving installation time and labor
- Works with wood or metal studs

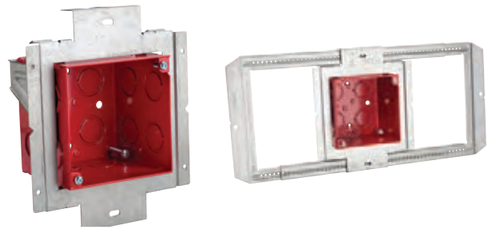
Finish: Pregalvanized
Material: Steel

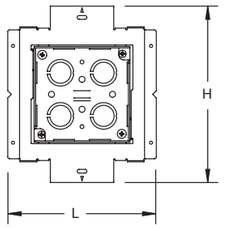
Part Number	Stud Spacing
TB1624HD	368.32 – 635 mm

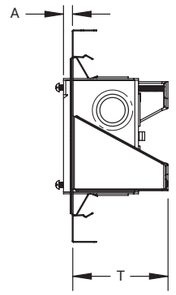
For stud spacing narrower than 14.5" use the smaller TB914HD bracket.

In-Wall Solutions

FIRE ALARM BOX WITH MOUNTING PLATE







nVent CADDY Fire Alarm Box with Mounting Plate is a powder coated adjustable depth box for mounting fire alarm devices and strobes, designed for on-stud and between stud applications. With two screws inside the box, installers can easily adjust to different depths after installation of drywall or ceiling tiles.

Available in three different options, designed for a wide range of applications. The TB425FB is for 2.5" stud depths. The TB435FB is for stud depths 3 5/8" and greater. The four-square box with ½" offset design is a ready-to-install assembly for devices and strobes that do not require a mud ring.

The TB425FBS option is for stud depths 3 5/8" and greater. The four-square box with no offset design allows for a mud ring to be used for mounting smaller devices for both single- and double-layer drywall.

Features

- Used for mounting fire alarm devices and strobes
- Snap-on installation to Heavy Duty Telescoping Bracket allows for easy positioning along bracket
- Can also be mounted directly to metal studs
- For between stud applications use with Heavy Duty Telescoping Bracket
- For overhead applications use with Heavy Duty Telescoping Bracket and T-Grid Clip (sold separately)
- Easily adjusts for different depth wall and ceiling applications
- Design provides built in far side support for minimum stub depths
- Powder coated inside and outside of box
- Includes depth stamps marked directly on the product for easy positioning
- Drop-wire attachment point

Finish: Pregalvanized, Powder Coated
Color: Red
Material: Steel

Part Number	Stud Wall Depth	Box Size	Box Depth	Knockout Sizes	Far Side Support Depth	A	Length L	Height H	Thick-ness T	Unit Weight	Certifica-tions
TB425FB	63.5 mm	101.6 ml	63.5 ml	–	63.5 ml	12.70 - 31.8 mm	157.48 ml	188.944 ml	59.9 ml	0.635 kg	UL
TB435FB	91.9 mm	101.6 ml	88.9 ml	–	91.9 ml	0.50 - 1.25 mm	157.48 ml	188.944 ml	85.3 ml	0.635 kg	UL



THE NVENT CADDY SPEED LINK SYSTEM

AT A GLANCE

nVent CADDY Speed Link Catenary System

An easy- and fast-to-install fixing solution for commercial buildings where structural supports are far apart



nVent CADDY Speed Link SLK

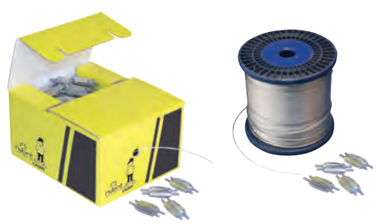
Structural Attachments – Use Locking Device at Load



Load Attachments – Use Locking Device at Structure



Use at Structure and Load



THE NVENT CADDY SPEED LINK SYSTEM

AT A GLANCE

nVent CADDY Speed Link SLS

Structural Attachments – Use Locking Device at Load



nVent CADDY Speed Link LD

Use at Structure or Load



nVent CADDY Speed Link SLDM

Use at Structure or Load

Load Attachment – Use Locking Device at Structure

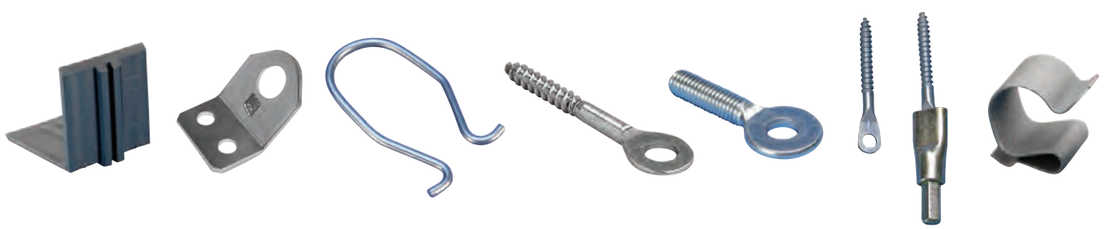


nVent CADDY Speed Link Extensions

Load Attachments – Use With Other nVent CADDY Speed Link Systems



nVent CADDY Speed Link Accessories



WIRE ROPE SUPPORT SYSTEMS

AN EXAMINATION OF THE UNIQUE ADVANTAGES OF WIRE ROPE SUPPORT SYSTEMS IN MECHANICAL, ELECTRICAL AND DATACOM INSTALLATIONS.

Benefits of a Wire Rope Support System



Cable support systems offer a unique combination of advantages that benefit almost any contracting project.

CONTRACTORS USE WIRE ROPE SUPPORT SYSTEMS BECAUSE THEY ARE LIGHTWEIGHT, SAFE, EFFECTIVE AND EASY TO INSTALL. WHILE MOST COMPARABLE METHODS ARE DESIGNED FOR A SPECIFIC APPLICATION, WIRE ROPE SYSTEMS EXCEL IN FOUR KEY AREAS:

ADAPTABILITY: Unlike other support systems, wire rope can be easily adapted to work with a variety of applications. The system appears very simple, but can be easily modified to hang rectangular duct, spiral duct, piping, basket tray, light fixtures and almost any other application that hangs from the ceiling. When cable supports are used for multiple applications on a jobsite, it greatly reduces the number of different products and tools that are needed, reduces waste, and simplifies purchasing.

FLEXIBILITY: Steel cable is incredibly flexible and allows for assemblies to be supported from a variety of angles. Unlike other methods that can be rigid and demand timely measurement, wire rope gives installers more slack when installing.

SPEED: Traditional support methods can make installing large assemblies very difficult. However, wire rope systems can be very quickly installed. Other hanging methods, like jack chain, metal strap and threaded rod, need to be measured, cut, and installed using several tools. Wire rope systems are much easier to adjust and eliminate many of the time consuming tasks required for other installation methods.

ADJUSTABILITY: Installers can easily make fine adjustments with a wire rope support system by unlocking the wire from the locking device, moving the assembly and relocking the wire. Additionally, even load distribution between several supports can be easily and quickly checked by measuring cable tension the same way a contractor would measure tension on a V-Belt.

SLS TRAPEZE KIT

- Product is ready to use out of the box, eliminating the need for cutting and transporting long lengths of strut
- Length of stem allows the device to be installed in strut profiles without inserting fingers or tools into the strut
- Strut profile is compatible with standard strut hardware
- The hook end-fitting makes it very easy to install on a variety of structures or nVent CADDY fasteners
- Speed Link is lighter, more flexible, easier to transport and generates less waste than alternative hanging methods
- “Push-to-install” retaining nut simplifies installation



The nVent CADDY Speed Link SLS locking device works with C-channel, standard strut and the Telescoping Strut Replacement to create a quick and easy trapeze for any lightweight installation. Multiple end-fittings are available to secure the wire to common structural features. The locking device quickly attaches to the strut channel with the push-in plastic washer and the whole assembly can be lifted onto the wire rope , making it ideal for on- or off-site prefabrication. Additionally, with locking devices available in bulk, multiple levels of services can be attached to the same wire, which is helpful to limit the number of fixing points at the structure.

The TSR1220SLS3 kit is designed to combine the benefits of the SLS locking device with the time saving and the flexibility of the Telescoping Strut Replacement. The hook end fittings of the Speed Link wire rope quickly attach to a variety of structures and nVent CADDY Fasteners, and the Telescoping Strut Replacement can be extended to any length between 30 and 50 cm, allowing the assembly of a full trapeze in seconds, without the use of any tools.

Trapeze Applications

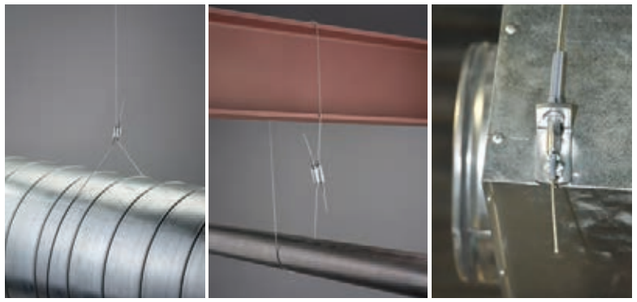


Electrical / Data Applications

Speed Link support systems cater nicely to electrical and datacom installations. The wire rope easily attaches to suspended electrical services like lights or quickly attaches to trapeze. Additionally, several Speed Link locking devices and end fittings can quickly attach to basket or perforated tray to support electrical or data cables.



Mechanical Applications



Speed Link offers the ideal solution for a variety of plumbing and HVAC installations. Wire rope can quickly attach directly to the service, like round duct, or a trapeze of pipe runs, to ensure an easy and cost-effective installation.

With mechanical services adding weight to a structure, it is important that the hanging method is not over-engineered. With its high strength-to-weight ration, wire rope does not add unneeded strain to the building.



The SLK locking device can withstand a wire rope spread angle of up to 90 degrees, meaning that the device can be placed closer to wide services, like round duct, hiding the locking device from view and creating a tighter, more aesthetically pleasing finished installation.



Concrete Applications

SLK WITH WEDGE ANCHOR

- Complete system includes wire, locking device and wedge anchor from Powers Fasteners, Inc.
- Quickly and easily attaches into cracked and non-cracked concrete
- No special tools required
- ETA-13/0106 approval available for wedge anchor from Powers Fasteners, Inc.



As concrete construction grows in popularity, it is increasingly important that all needed services can attach directly to concrete structure. nVent CADDY offers several concrete structural attachments riveted to precut wire rope or not, allowing installers to hang all necessary services directly to structure.

NVENT CADDY SPEED LINK COMES WITH A VARIETY OF LOCKING DEVICES AND END FITTINGS. THE BENEFIT OF THE SYSTEM IS THAT IT IS SO ADAPTABLE, BUT WITH SO MANY OPTIONS OF HOW TO ASSEMBLE THE SYSTEM, IT IS IMPORTANT TO UNDERSTAND THE UNIQUE BENEFITS OF EACH CONFIGURATION.



LOCKING DEVICE AT STRUCTURE

Having the locking device on the structure end of a Speed Link assembly can be beneficial because it allows for the most adaptability with different structure types. When the structure is unpredictable or untraditional, the wire rope only needs to be wrapped around a member and locked in place with an SLK locking device. On the other end, multiple end-fittings can attach to a variety of load types.



nVent CADDY Speed Link Locking Device									End Fittings		Ceiling Structure												Wall Structure		
LD	SLDM	SLK2		SLK3	SLK6	SLS2		SLS3			Concrete				Metallic					Catenary	Wood		Concrete	Brick	Other
1.5 mm	1.5 mm	1.5 mm	2 mm	3 mm	6 mm	1.5 mm	2 mm	3 mm			Slab	Metal Decking	Beam	Hollow Core	Beam	Purlin		Metal Decking	T-Grid		Beam				
																								
		X	X	X					Angle Bracket																
		X	X						Shot-Fire Bracket		X		X	X									X		
		X	X				X		Decking Hook									X							
		X	X						Hammer-On Flange Clip						X										
X	X	X	X	X	X		X	X	Hook				X		X	X	X								
		X	X	X					Loop				X		X	X	X								
		X	X	X			X		Threaded Stud End																
		X	X	X		X	X		Wedge Anchor		X	X	X	X*									X		
									Toggle									X							
		X	X	X					Catenary Clip											X					
X		X	X	X	X				Loop the cable around the structure and through the locking device				X		X	X	X								
																	XX								

- End-fitting designed to be used at the load
- End-fitting can be used both at structure and load
- End-fitting designed to be used at structure
- X End-fitting used at structure without accessories
- End-fitting installed on structure when combined with accessories from the nVent CADDY range
- * Minimum embedment depth of the anchor must be met. To be approved by the Structural Engineer.

nVent CADDY Speed Link Locking Device									End Fittings		Electrical & Data Service									Mechanical Service					
LD	SLDM	SLK2		SLK3	SLK6	SLS2		SLS3			Light Support			Cable Management Support				Signage	Suspended Ceiling	HVAC				Plumbing	
1.5 mm	1.5 mm	1.5 mm	2 mm	3 mm	6 mm	1.5 mm	2 mm	3 mm			Tropher	Work Light	HID	Wire Basket Tray	Perforated Cable Tray	Cable Ladder	Fabric Cable Tray			Rectangle Duct	Round Duct	Fabric Duct	Ceiling Fan Unit	Single Pipe Run	Pipe Rack
		X	X	X					Angle Bracket																
		X	X						Shot-Fire Bracket																
		X	X				X		Decking Hook																
		X	X						Hammer-On Flange Clip																
X	X	X	X	X			X	X	Hook				X	X	X	X	X	X			X	X	X	X	X
		X	X	X					Loop																
		X	X	X			X		Threaded Stud End																X
		X	X	X			X		Wedge Anchor																
	X	X							Toggle		X	X													
			X						Y-Hook		X			X	X	X							X		
		X	X						Y-Toggle		X	X													
		X	X	X					Catenary Clip																
X		X	X	X					Loop the cable around the structure and through the locking device			X	X	X	X	X		X	X	X	X	X	X	X	X
							X		Locking Device installed directly on the service						X								X		X
								X															X		X
							X	X	Strut / TSR1220N Trapeze																
								X	Accessories																
	X								Thread Locking Device directly into the service			X													

- End-fitting designed to be used at the load
- End-fitting can be used both at structure and load
- End-fitting designed to be used at structure
- X End-fitting used at load without accessories
- End-fitting installed on load when combined with accessories from the nVent CADDY range

LOCKING DEVICE AT LOAD

Having the locking device on the load end of a Speed Link assembly is not required, but is often most beneficial. On the load side, there are more locking device options, including the Speed Link SLS. Additionally, many end fittings are made specifically for different structure types. Regardless of the situation, these fittings, like the concrete anchor and hammer-on beam clamp, cannot be placed on the load side.

With the locking device at the load, fine adjustments are also much easier. If a load needs to be moved slightly up or down, it is much easier to make the adjustment when the installer stands directly next to the service that needs to be moved, as opposed to several meters above at the structure side.





OTHER CONFIGURATIONS

Speed Link can also be purchased in bulk kits with wire rope spools and locking devices. This allows setups with the locking device on each end and infinite loop setup, in which neither end has a locking device. This may be advantageous in installations with unique and non-repeating support needs.

nVent CADDY Speed Link Catenary System

SYSTEM FEATURES

nVent CADDY Speed Link Catenary System provides an easy and fast-to-install fixing solution for commercial buildings where structural supports are far apart. This versatile solution, which can be installed on almost any type of structures, will also increase safety on the jobsite by limiting the amount of time spent on a lift doing repetitive and cumbersome tasks, keeping the number of tools down to a minimum and providing an easy-to-remove solution.

SAFETY FEATURES

Thanks to the accurate tensioning tool and the keyless locking device and hook, installing and removing a Catenary system is now a safe and easy, 1-person's task

Keyless release tubes designed to allow safe and easy adjustment, even while wearing bulky gloves

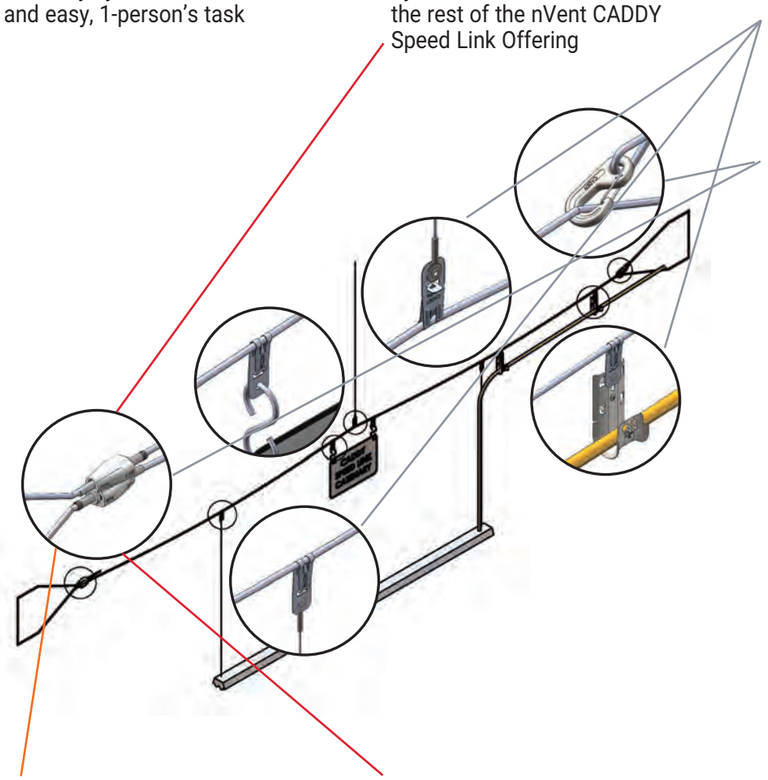
Third Party test report available

AESTHETIC FEATURES

Similar housing style creates a consistent look when used in projects alongside the nVent CADDY Speed Link SLK & SLS System / Consistent look with the rest of the nVent CADDY Speed Link Offering

Shape of the locking closely follow the cable to reduce visual impact

Elegant alternative to Strut installation



EASE OF USE FEATURES

Spring steel, snap-In Drop Wire Clip installs in seconds on 6mm cable and is available with and without riveted wire for even more applications

Only one locking device per precut length. The hook end fitting on the other end allows for an even faster installation

Comprehensive range of accessories available to accommodate all types of installation / structure

Universal self-supporting tensioning tool hangs on the catenary cable, giving the installer a free hand to hold on when tensioning the cable

The color of the line corresponds to the larger goal of each feature:

SAFETY FEATURES
AESTHETIC FEATURES
EASE OF USE FEATURES

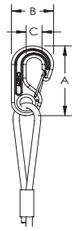
Speed Link Catenary System

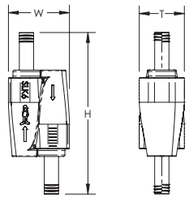
CATENARY KIT

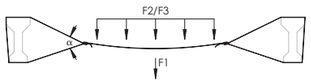
- Kit includes precut length of fuse-cut cable to avoid fraying, pre-assembled hook end fitting and tool-free locking device to save installation time
- Fastens to the building structure by looping around and hooking to wire rope
- Hook end-fitting easily attaches to eye nut
- Spring latch helps provide secure connection













Material: Steel; Zinc Alloy; Polypropylene
Finish: Electrogalvanized; Hot-Dip Galvanized
Wire Rope Diameter: 6 mm

Part Number	Article Number	Wire Rope Length	A	B	C	Height H	Width W	Thickness T	Angle a
SLK6L5	196800	5 m	75 mm	40 mm	15 mm	108 mm	41 mm	30 mm	60° Max
SLK6L10	196801	10 m	75 mm	40 mm	15 mm	108 mm	41 mm	30 mm	60° Max
SLK6L15	196802	15 m	75 mm	40 mm	15 mm	108 mm	41 mm	30 mm	60° Max
SLK6L20	196803	20 m	75 mm	40 mm	15 mm	108 mm	41 mm	30 mm	60° Max
SLK6L25	196804	25 m	75 mm	40 mm	15 mm	108 mm	41 mm	30 mm	60° Max
SLK6L30	196805	30 m	75 mm	40 mm	15 mm	108 mm	41 mm	30 mm	60° Max
SLK6L40	196806	40 m	75 mm	40 mm	15 mm	108 mm	41 mm	30 mm	60° Max
SLK6L50	196807	50 m	75 mm	40 mm	15 mm	108 mm	41 mm	30 mm	60° Max

Static Load F1	Static Load F2	Static Load F3	Static Load F4
590 N	1,080 N	1,180 N	4,440 N

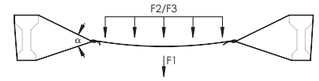
Wire Rope Length is measured from the end of the wire rope to the hook side of the swage.
Static load F1 represents a point load in the center of the catenary installation.
Static load F2 represents a two or three point distributed load on the catenary installation.
Static load F3 represents a four or more point distributed load on the catenary installation.

Speed Link Catenary System

CATENARY CABLE SPOOL

- Used for installing custom lengths of catenary cable with two locking devices
- Spool with nVent CADDY Speed Link steel wire
- Wire rope constructed from 7 bundles of 19 strands each of steel aircraft wire







Material: Steel
Finish: Hot-Dip Galvanized

Part Number	Article Number	Wire Rope Diameter	Wire Rope Length	Angle a	Static Load F1	Static Load F2	Static Load F3	Static Load F4
SLC6CTO	196819	6 mm	–	60° Max	590 N	1,080 N	1,180 N	4,440 N
SLC6L50	196821	6 mm	50 m	60° Max	590 N	1,080 N	1,180 N	4,440 N

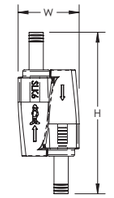
Static load F1 represents a point load in the center of the catenary installation.
Static load F2 represents a two or three point distributed load on the catenary installation.
Static load F3 represents a four or more point distributed load on the catenary installation.
Cut-to-order (CTO) lengths orderable in meter increments.

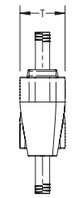
CATENARY LOCKING DEVICE

- Push/pull keyless release allows easy adjustments
- Low-profile locking device minimizes visual impact
- Cable spread of 60 degrees allows positioning the device closer to the structure
- Keyless release tubes are easy to operate while wearing gloves









Material: Steel; Polypropylene; Zinc Alloy

Part Number	Article Number	Wire Rope Diameter	Height H	Width W	Thickness T
SLK6C2	196820	6 mm	108 mm	41 mm	30 mm

Locking devices are only to be used with nVent CADDY Speed Link wire spools and accessories with the same specified Wire Rope Diameter as the locking device. Do not use with any other wires.

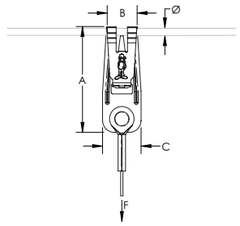
Speed Link Catenary System

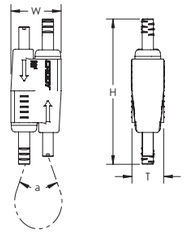
SLK WITH DROP WIRE CLIP

- Complete system includes wire, locking device and pre-assembled drop wire clip end fitting for catenary cable
- Can be used to hang services from catenary cable or act as an intermediate support to reduce sag and tension
- Easily snaps onto catenary cable and locks in place when closed
- Tool-free clip can be hand-closed on the catenary wire









Material: Steel; Spring Steel; Polypropylene; Zinc Alloy
Finish: Electrogalvanized; nVent CADDY Armour
Static Load Safety Factor: 5:1
Diameter Ø (Catenary Wire): 6 mm

Part Number	Article Number	Wire Rope Length	A	B	C	Height H	Width W	Thickness T	Angle a	Static Load F
Wire Rope Diameter: 1.5 mm										
SLK15L1DW6	196830	1 m	70 mm	20 mm	25 mm	55 mm	19 mm	12.5 mm	90° Max	195 N
SLK15L2DW6	196831	2 m	70 mm	20 mm	25 mm	55 mm	19 mm	12.5 mm	90° Max	195 N
SLK15L3DW6	196832	3 m	70 mm	20 mm	25 mm	55 mm	19 mm	12.5 mm	90° Max	195 N
SLK15L5DW6	196833	5 m	70 mm	20 mm	25 mm	55 mm	19 mm	12.5 mm	90° Max	195 N
Wire Rope Diameter: 2.0 mm										
SLK2L1DW6	196836	1 m	70 mm	20 mm	25 mm	55 mm	19 mm	12.5 mm	90° Max	440 N
SLK2L2DW6	196837	2 m	70 mm	20 mm	25 mm	55 mm	19 mm	12.5 mm	90° Max	440 N
SLK2L3DW6	196838	3 m	70 mm	20 mm	25 mm	55 mm	19 mm	12.5 mm	90° Max	440 N
SLK2L5DW6	196839	5 m	70 mm	20 mm	25 mm	55 mm	19 mm	12.5 mm	90° Max	440 N
Wire Rope Diameter: 3.0 mm										
SLK3L1DW6	196842	1 m	70 mm	20 mm	25 mm	62 mm	24 mm	16.0 mm	90° Max	700 N
SLK3L2DW6	196843	2 m	70 mm	20 mm	25 mm	62 mm	24 mm	16.0 mm	90° Max	700 N
SLK3L3DW6	196844	3 m	70 mm	20 mm	25 mm	62 mm	24 mm	16.0 mm	90° Max	700 N
SLK3L5DW6	196845	5 m	70 mm	20 mm	25 mm	62 mm	24 mm	16.0 mm	90° Max	700 N

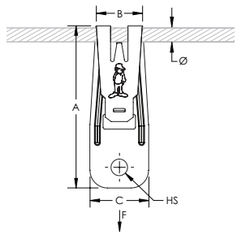
Speed Link Catenary System

DROP WIRE CLIP

- Can be used to hang services from catenary cable or act as an intermediate support to reduce sag and tension
- Easily snaps onto catenary cable and locks in place when closed
- Tool-free clip can be hand-closed on the catenary wire







Material: Spring Steel
Finish: nVent CADDY Armour

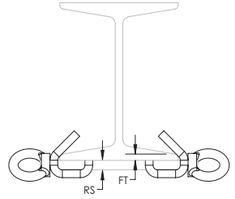
Part Number	Article Number	Hole Size HS	A	B	C	Diameter Ø	Static Load F
SLDW6	196822	7 mm	70 mm	20 mm	25 mm	6 mm	700 N

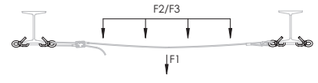
BEAM ATTACHMENT KIT

- For installations where the cable cannot be looped around the steel beam
- Can support two catenary systems using each eye nut as an anchoring point
- Kit includes beam clamps and eye nuts
- Installs on top or bottom flange of I-beams









Material: Steel
Finish: Electrogalvanized; Hot-Dip Galvanized

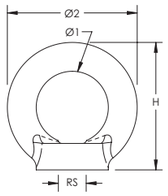
Part Number	Article Number	Flange Thickness FT	Rod Size RS	Static Load F1	Static Load F2	Static Load F3
SLBM12	196852	10 – 20 mm	M12	390 N	690 N	780 N

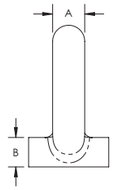
Static load F1 represents a point load in the center of the catenary installation.
Static load F2 represents a two or three point distributed load on the catenary installation.
Static load F3 represents a four or more point distributed load on the catenary installation.

Speed Link Catenary System

EYE NUT

- Use with anchors to install catenary system directly to concrete







Material: Steel
Finish: Hot-Dip Galvanized

Part Number	Rod Size RS	Diameter 1 Ø1	Diameter 2 Ø2	Height H	A	B
196855	M12	30 mm	54 mm	53 mm	12 mm	12 mm

CATENARY TENSIONING TOOL

- Self-supporting tool allows one-handed tensioning
- Accurate measurement of the cable tension
- Used to install and remove catenary system
- Torque wrench can be easily removed for calibration
- Highly durable





Part Number	Article Number
SL6T	196850

CABLE CUTTER

- Designed to reduce cable fraying







Part Number	Article Number
CSBC48	402536

nVent CADDY Speed Link SLK System

LOCKING DEVICE FEATURES

The nVent CADDY Speed Link SLK system provides a versatile overhead support solution that is easy to adjust and installs quickly to almost any structure. The system supports a wide range of applications, including ductwork, pipe and tube, cable tray, lighting, conduit, strut profiles and signage from overhead structural building members. It is available with a variety of specialty end fittings for the most common building structure types, a range of wire rope diameters and lengths, and includes a unique keyless locking device.

Plastic release tubes allow for keyless installation

The locking device can accommodate wire rope at up to 90 degrees, allowing it to be positioned closer to the load than other locking devices on the market, hiding it from view and creating a much more aesthetically pleasing finished product

Arrows on the device clearly demonstrate the correct direction to push the wire

Top and bottom of the locking device are symmetrical, allowing installation in either orientation



Plastic release tubes can be easily manipulated, even when wearing bulky gloves

Neutral position of the spring-loaded tubes is locked, reducing likelihood of accidentally dropping an assembly during installation. This is much safer than release buttons found on some competing products that can be accidentally engaged

Two jaws grip the wire inside the device, holding the wire more securely than single-cam devices common among most competitors

	Application	Description	Competitor "G"	Competitor "Z"	Competitor "B"	Competitor "D"	Speed Link
	Splice	• Joining two pieces of wire • Practical when working with wire spools or spool kits	✘	✘*	✘*	✘	✓
	Infinite Loop	• Increased load rating • Ideal when working with wire spools • Only requires one locking device per drop • Useful in tight spaces	✘	✘*	✘*	✘	✓
	Low Level of Concealment	• Placing the locking device closer to the load makes it easier to hide • The higher the maximum angle, the closer the device can be to the service • Useful in tight spaces	**60°**	**?**	**39°**	**?**	**90°**

* Not specified on technical documents [but not advertized either]

? Not specified on technical documents but always shown with an angle lower than 90 degrees

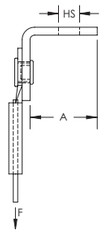
Speed Link SLK System

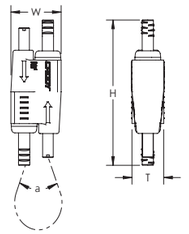
SLK WITH ANGLE BRACKET

- Complete system includes wire, locking device and pre-assembled angle bracket end fitting
- Ideal for attaching to concrete, steel or wood surfaces
- Simple alternative to jack chain and additional hardware









Material: Steel; Zinc Alloy; Polypropylene
Finish: Electrogalvanized
Static Load Safety Factor: 5:1
Complies With: SMACNA HVAC-DCS

Part Number	Article Number	Wire Rope Length	A	Hole Size HS	Height H	Width W	Thickness T	Angle a	Static Load F	Certif-ications
Wire Rope Diameter: 1.5 mm										
SLK15L1AB	196500	1 m	22.6 mm	7.1 mm	55 mm	19 mm	12.5 mm	90° Max	195 N	cULus
SLK15L2AB	196501	2 m	22.6 mm	7.1 mm	55 mm	19 mm	12.5 mm	90° Max	195 N	cULus
SLK15L3AB	196502	3 m	22.6 mm	7.1 mm	55 mm	19 mm	12.5 mm	90° Max	195 N	cULus
SLK15L5AB	196503	5 m	22.6 mm	7.1 mm	55 mm	19 mm	12.5 mm	90° Max	195 N	cULus
Wire Rope Diameter: 2.0 mm										
SLK2L2AB	196529	2 m	22.6 mm	7.1 mm	55 mm	19 mm	12.5 mm	90° Max	440 N	cULus
SLK2L3AB	196530	3 m	22.6 mm	7.1 mm	55 mm	19 mm	12.5 mm	90° Max	440 N	cULus
SLK2L5AB	196531	5 m	22.6 mm	7.1 mm	55 mm	19 mm	12.5 mm	90° Max	440 N	cULus
Wire Rope Diameter: 3.0 mm										
SLK3L1AB	196712	1 m	22.6 mm	7.1 mm	62 mm	24 mm	16.0 mm	90° Max	890 N	–
SLK3L2AB	196713	2 m	22.6 mm	7.1 mm	62 mm	24 mm	16.0 mm	90° Max	890 N	–
SLK3L3AB	196714	3 m	22.6 mm	7.1 mm	62 mm	24 mm	16.0 mm	90° Max	890 N	–
SLK3L5AB	196715	5 m	22.6 mm	7.1 mm	62 mm	24 mm	16.0 mm	90° Max	890 N	–
SLK3L7AB	196728	7 m	22.6 mm	7.1 mm	62 mm	24 mm	16.0 mm	90° Max	890 N	–
SLK3L10AB	196716	10 m	22.6 mm	7.1 mm	62 mm	24 mm	16.0 mm	90° Max	890 N	–

Speed Link SLK System

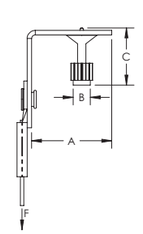
SLK WITH SHOT-FIRE BRACKET

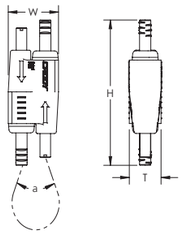
- Complete system includes wire, locking device and shot-fire bracket with pre-assembled drive pin from Powers Fasteners, Inc.
- Quickly and easily attaches to concrete, steel or composite metal decking
- Integrated pin installs easily using powder-actuated or single-shot gas-actuated tools
- ICC-ES ESR-2024 evaluation report available for drive pin from Powers Fasteners, Inc











Material: Steel; Zinc Alloy; Polypropylene
Finish: Electrogalvanized
Static Load Safety Factor: 5:1
Complies With: SMACNA HVAC-DCS

Part Number	Article Number	Wire Rope Length	A	B	C	Height H	Width W	Thickness T	Angle a	Static Load F
Wire Rope Diameter: 1.5 mm										
SLK15L1SF	196517	1 m	37.5 mm	7.6 mm	31.8 mm	55 mm	19 mm	12.5 mm	90° Max	195 N
SLK15L2SF	196518	2 m	37.5 mm	7.6 mm	31.8 mm	55 mm	19 mm	12.5 mm	90° Max	195 N
SLK15L3SF	196519	3 m	37.5 mm	7.6 mm	31.8 mm	55 mm	19 mm	12.5 mm	90° Max	195 N
SLK15L5SF	196520	5 m	37.5 mm	7.6 mm	31.8 mm	55 mm	19 mm	12.5 mm	90° Max	195 N
Wire Rope Diameter: 2.0 mm										
SLK2L2SF	196546	2 m	37.5 mm	7.6 mm	31.8 mm	55 mm	19 mm	12.5 mm	90° Max	440 N
SLK2L5SF	196548	5 m	37.5 mm	7.6 mm	31.8 mm	55 mm	19 mm	12.5 mm	90° Max	440 N

Uses Powers Fasteners, Inc. part number 50032.

Static load was established based on a 1" (25.4 mm) embedment depth and 3,000 psi (20.68 MPa) lightweight concrete. For variations in embedment and material please consult www.powers.com.

Pre-assembled drive pin from Powers Fasteners, Inc. works with Powers® C4CZ, Simpson® GCN-MEPKT, SPIT® P1000, P200, P2201, P3500 / PA3500, P35s, P45, P60, P7201, Sniper; Ramset® 721, Cobra, D45 / D60 / D60L, M70, SA270, T3SS, TS750P, TS60P, Viper; Hilti® DX35, DX350 / DX351 / DX36M, DX100 / DX200, DX460, DXA40, DXA41, DXE72 / DX400; Würth Diva-1, BST-1, BST-2 or equivalent nailers.

For shot-fired supports in seismic design category D, E, or F, maximum load is the lesser of 90 lb (400 N) or the published load.

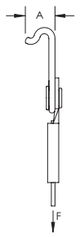
Speed Link SLK System

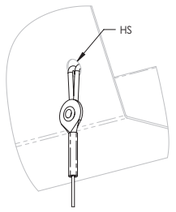
SLK WITH DECKING HOOK

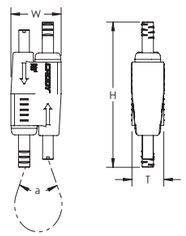
- Complete system includes wire, locking device and pre-assembled decking hook end fitting
- Quickly and easily attaches to hollow metal decking
- Spring-loaded ends snap into decking hole and lock into place
- Innovative design helps protect the wire from sharp edges of decking hole, minimizing risk of damage to wire











Material: Steel; Zinc Alloy; Polypropylene
Finish: Electrogalvanized
Static Load Safety Factor: 5:1
Complies With: SMACNA HVAC-DCS

Part Number	Article Number	Wire Rope Length	Roof Decking Sheet Thickness	A	Hole Size HS	Height H	Width W	Thickness T	Angle a	Static Load F
Wire Rope Diameter: 1.5 mm										
SLK15L1DH	196676	1 m	1.5 mm Max	9.2 mm	8 mm	55 mm	19 mm	12.5 mm	90° Max	195 N
SLK15L2DH	196677	2 m	1.5 mm Max	9.2 mm	8 mm	55 mm	19 mm	12.5 mm	90° Max	195 N
SLK15L3DH	196504	3 m	1.5 mm Max	9.2 mm	8 mm	55 mm	19 mm	12.5 mm	90° Max	195 N
SLK15L5DH	196505	5 m	1.5 mm Max	9.2 mm	8 mm	55 mm	19 mm	12.5 mm	90° Max	195 N
Wire Rope Diameter: 2.0 mm										
SLK2L3DH	196532	3 m	1.5 mm Max	9.2 mm	8 mm	55 mm	19 mm	12.5 mm	90° Max	440 N
SLK2L5DH	196533	5 m	1.5 mm Max	9.2 mm	8 mm	55 mm	19 mm	12.5 mm	90° Max	440 N
SLK2L7DH	196534	7 m	1.5 mm Max	9.2 mm	8 mm	55 mm	19 mm	12.5 mm	90° Max	440 N

Load rating is only applicable if the load-bearing capacity of the supporting element (steel decking) is adequate. Check with deck manufacturer for recommended load capacity.

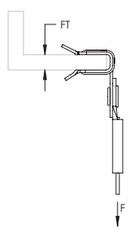
Speed Link SLK System

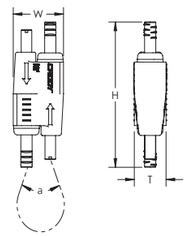
SLK WITH HAMMER-ON FLANGE CLIP

- Complete system includes wire, locking device and pre-assembled nVent CADDY Hammer-On Flange Clip end fitting
- Installs with just a hammer
- Fits most beams









Material: Steel; Polypropylene; Zinc Alloy
Finish: Electrogalvanized
Static Load Safety Factor: 5:1
Complies With: SMACNA HVAC-DCS

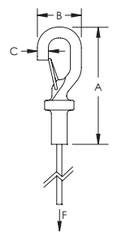
Part Number	Article Number	Wire Rope Length	Flange Thickness FT	Height H	Width W	Thickness T	Angle a	Static Load F
Wire Rope Diameter: 1.5 mm								
SLK15L34H24	196506	3 m	3 – 8 mm	55 mm	19 mm	12.5 mm	90° Max	195 N
SLK15L34H58	196507	3 m	8 – 14 mm	55 mm	19 mm	12.5 mm	90° Max	195 N
Wire Rope Diameter: 2.0 mm								
SLK2L34H24	196535	3 m	3 – 8 mm	55 mm	19 mm	12.5 mm	90° Max	440 N
SLK2L34H58	196536	3 m	8 – 14 mm	55 mm	19 mm	12.5 mm	90° Max	440 N

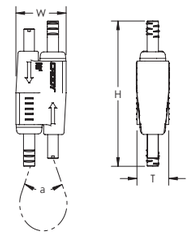
Speed Link SLK System

SLK WITH HOOK

- Complete system includes wire, locking device and pre-assembled hook end fitting
- Hooks to a wide range of nVent CADDY fasteners
- Fastens to the building structure or hanging services by looping around and hooking to wire rope
- Easy to remove for applications requiring maintenance
- Spring latch helps provide secure connection
- Insert cable through hole and use bottom side of hook as an end stop
- Also available in Y-hook configuration





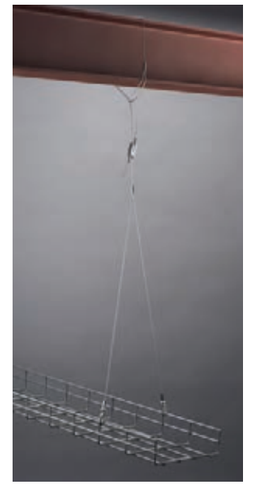
Material: Steel; Polypropylene; Zinc Alloy
Finish: Electrogalvanized
Static Load Safety Factor: 5:1

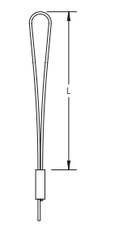
Part Number	Article Number	Wire Rope Length m	A mm	B mm	C mm	H mm	W mm	T mm	Angle a	F N	Certif-ications	Standard Packaging Quantity
Wire Rope Diameter: 1.5 mm												
SLK15L1	196508	1	48.0	18.0	4.5	55	19	12.5	90° Max	195		20 pc
SLK15L2	196509	2	48.0	18.0	4.5	55	19	12.5	90° Max	195		20 pc
SLK15L2R2	196614	2	48.0	18.0	4.5	55	19	12.5	90° Max	195		15 x 2 pc
SLK15L3	196510	3	48.0	18.0	4.5	55	19	12.5	90° Max	195	cULus,	20 pc
SLK15L3R2	196615	3	48.0	18.0	4.5	55	19	12.5	90° Max	195	SMACNA	15 x 2 pc
SLK15L5	196511	5	48.0	18.0	4.5	55	19	12.5	90° Max	195		20 pc
SLK15L5R2	196616	5	48.0	18.0	4.5	55	19	12.5	90° Max	195		15 x 2 pc
SLK15L7	196512	7	48.0	18.0	4.5	55	19	12.5	90° Max	195		20 pc
SLK15L10	196513	10	48.0	18.0	4.5	55	19	12.5	90° Max	195		20 pc
Wire Rope Diameter: 2.0 mm												
SLK2L1	196537	1	57.0	20.0	5.5	55	19	12.5	90° Max	440		10 pc
SLK2L2	196538	2	57.0	20.0	5.5	55	19	12.5	90° Max	440		10 pc
SLK2L2R2	196619	2	57.0	20.0	5.5	55	19	12.5	90° Max	440		15 x 2 pc
SLK2L3	196539	3	57.0	20.0	5.5	55	19	12.5	90° Max	440		10 pc
SLK2L3R2	196620	3	57.0	20.0	5.5	55	19	12.5	90° Max	440		15 x 2 pc
SLK2L5	196540	5	57.0	20.0	5.5	55	19	12.5	90° Max	440	cULus, SMACNA	10 pc
SLK2L5R2	196621	5	57.0	20.0	5.5	55	19	12.5	90° Max	440		15 x 2 pc
SLK2L7	196541	7	57.0	20.0	5.5	55	19	12.5	90° Max	440		10 pc
SLK2L10	196542	10	57.0	20.0	5.5	55	19	12.5	90° Max	440		10 pc
SLK2L10R2	196622	10	57.0	20.0	5.5	55	19	12.5	90° Max	440		15 x 2 pc
Wire Rope Diameter: 3.0 mm												
SLK3L1	196700	1	57.6	23.2	6.1	62	24	16.0	90° Max	890	SMACNA	10 x 10 pc
SLK3L2	196701	2	57.6	23.2	6.1	62	24	16.0	90° Max	890	SMACNA	10 x 10 pc
SLK3L3	196702	3	57.6	23.2	6.1	62	24	16.0	90° Max	890	SMACNA	5 x 10 pc
SLK3L3R2	196625	3	57.6	23.2	6.1	62	24	16.0	90° Max	890	SMACNA	10 x 2 pc
SLK3L5	196703	5	57.6	23.2	6.1	62	24	16.0	90° Max	890	SMACNA	5 x 10 pc
SLK3L5R2	196626	5	57.6	23.2	6.1	62	24	16.0	90° Max	890	SMACNA	15 x 2 pc
SLK3L7	196704	7	57.6	23.2	6.1	62	24	16.0	90° Max	890	SMACNA	5 x 5 pc
SLK3L10	196705	10	57.6	23.2	6.1	62	24	16.0	90° Max	890	SMACNA	5 x 5 pc

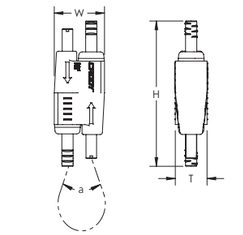
Speed Link SLK System

SLK WITH LOOP

- Complete system includes wire, locking device and pre-assembled loop end fitting
- Easy and flexible solution attaches to building structures
- Wire rope wraps around structure and through loop for quick installation
- Ideal for attaching to purlins, beams and other structural members
- Works well in tight or confined spaces
- Loop attaches directly to pipe, ductwork or other hanging assemblies





Material: Steel; Polypropylene; Zinc Alloy
Finish: Electrogalvanized
Static Load Safety Factor: 5:1

Part Number	Article Number	Wire Rope Length	Length L mm	Height H mm	Width W mm	Thickness T mm	Angle a	Static Load F	Certif-ications	Standard Packaging Quantity
Wire Rope Diameter: 1.5 mm										
SLK15L1LP	196601	1 m	101.6	55	19	12.5	90° Max	195 N		20 pc
SLK15L1LPR2	196628	1 m	101.6	55	19	12.5	90° Max	195 N		15 x 2 pc
SLK15L2LP	196514	2 m	101.6	55	19	12.5	90° Max	195 N		20 pc
SLK15L2LPR2	196629	2 m	101.6	55	19	12.5	90° Max	195 N		15 x 2 pc
SLK15L3LP	196515	3 m	101.6	55	19	12.5	90° Max	195 N	cULus,	20 pc
SLK15L3LPR2	196630	3 m	101.6	55	19	12.5	90° Max	195 N	SMACNA	15 x 2 pc
SLK15L5LP	196516	5 m	101.6	55	19	12.5	90° Max	195 N		20 pc
SLK15L5LPR2	196631	5 m	101.6	55	19	12.5	90° Max	195 N		15 x 2 pc
SLK15L7LP	196602	7 m	101.6	55	19	12.5	90° Max	195 N		20 pc
SLK15L10LP	196603	10 m	101.6	55	19	12.5	90° Max	195 N		20 pc
Wire Rope Diameter: 2.0 mm										
SLK2L1LP	196604	1 m	101.6	55	19	12.5	90° Max	440 N		10 pc
SLK2L2LP	196543	2 m	101.6	55	19	12.5	90° Max	440 N		10 pc
SLK2L3LP	196544	3 m	101.6	55	19	12.5	90° Max	440 N	cULus,	10 pc
SLK2L5LP	196545	5 m	101.6	55	19	12.5	90° Max	440 N	SMACNA	10 pc
SLK2L7LP	196605	7 m	101.6	55	19	12.5	90° Max	440 N		5 pc
SLK2L10LP	196606	10 m	101.6	55	19	12.5	90° Max	440 N		5 pc
Wire Rope Diameter: 3.0 mm										
SLK3L1LP	196706	1 m	101.6	62	24	16.0	90° Max	890 N	SMACNA	10 x 10 pc
SLK3L2LP	196707	2 m	101.6	62	24	16.0	90° Max	890 N	SMACNA	10 x 10 pc
SLK3L3LP	196708	3 m	101.6	62	24	16.0	90° Max	890 N	SMACNA	5 x 10 pc
SLK3L5LP	196709	5 m	101.6	62	24	16.0	90° Max	890 N	SMACNA	5 x 10 pc
SLK3L7LP	196710	7 m	101.6	62	24	16.0	90° Max	890 N	SMACNA	5 x 5 pc
SLK3L10LP	196711	10 m	101.6	62	24	16.0	90° Max	890 N	SMACNA	5 x 5 pc

Speed Link SLK System

SLK WITH THREADED STUD END

- Complete system includes wire, locking device and pre-assembled threaded stud end fitting
- Attaches to structures with threaded anchors or devices with threaded hole
- Connects directly to threaded devices in trapeze assemblies, light fixtures, HVAC assemblies or signage





Material: Steel; Polypropylene; Zinc Alloy
Finish: Electrogalvanized
Static Load Safety Factor: 5:1
Complies With: SMACNA HVAC-DCS

Part Number	Article Number	Wire Rope Length	Rod Size RS	Screw Length L	Height H	Width W	Thickness T	Angle a	Static Load F	Certif-ications
Wire Rope Diameter: 1.5 mm										
SLK15L1SEM6	196564	1 m	M6	25 mm	55 mm	19 mm	12.5 mm	90° Max	195 N	cULus
SLK15L1SEM8	196565	1 m	M8	45 mm	55 mm	19 mm	12.5 mm	90° Max	195 N	cULus
SLK15L2SEM6	196566	2 m	M6	25 mm	55 mm	19 mm	12.5 mm	90° Max	195 N	cULus
SLK15L2SEM8	196567	2 m	M8	45 mm	55 mm	19 mm	12.5 mm	90° Max	195 N	cULus
SLK15L3SEM6	196568	3 m	M6	25 mm	55 mm	19 mm	12.5 mm	90° Max	195 N	cULus
SLK15L3SEM8	196570	3 m	M8	45 mm	55 mm	19 mm	12.5 mm	90° Max	195 N	cULus
Wire Rope Diameter: 2.0 mm										
SLK2L2SEM6	196558	2 m	M6	25 mm	55 mm	19 mm	12.5 mm	90° Max	440 N	cULus
SLK2L2SEM8	196559	2 m	M8	45 mm	55 mm	19 mm	12.5 mm	90° Max	440 N	cULus
SLK2L3SEM6	196560	3 m	M6	25 mm	55 mm	19 mm	12.5 mm	90° Max	440 N	cULus
SLK2L3SEM8	196561	3 m	M8	45 mm	55 mm	19 mm	12.5 mm	90° Max	440 N	cULus
SLK2L5SEM6	196562	5 m	M6	25 mm	55 mm	19 mm	12.5 mm	90° Max	440 N	cULus
SLK2L5SEM8	196563	5 m	M8	45 mm	55 mm	19 mm	12.5 mm	90° Max	440 N	cULus
Wire Rope Diameter: 3.0 mm										
SLK3L10SEM10	196721	10 m	M10	45 mm	62 mm	24 mm	16.0 mm	90° Max	890 N	–
SLK3L1SEM10	196717	1 m	M10	45 mm	62 mm	24 mm	16.0 mm	90° Max	890 N	–
SLK3L2SEM10	196718	2 m	M10	45 mm	62 mm	24 mm	16.0 mm	90° Max	890 N	–
SLK3L3SEM10	196719	3 m	M10	45 mm	62 mm	24 mm	16.0 mm	90° Max	890 N	–
SLK3L5SEM10	196720	5 m	M10	45 mm	62 mm	24 mm	16.0 mm	90° Max	890 N	–
SLK3L7SEM10	196729	7 m	M10	45 mm	62 mm	24 mm	16.0 mm	90° Max	890 N	–

Speed Link SLK System

SLK WITH WEDGE ANCHOR

- Complete system includes wire, locking device and wedge anchor from Powers Fasteners, Inc.
- Quickly and easily attaches into cracked and non-cracked concrete
- No special tools required
- ETA-13/0106 approval available for wedge anchor from Powers Fasteners, Inc




Material: Steel; Polypropylene; Zinc Alloy
Finish: Electrogalvanized
Static Load Safety Factor: 5:1
Complies With: SMACNA HVAC-DCS

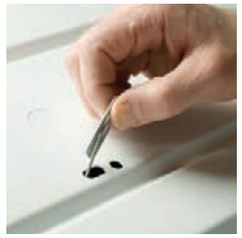
Part Number	Article Number	Wire Rope Length	Length L	Height H	Width W	Thickness T	Angle a	Static Load F
Wire Rope Diameter: 1.5 mm								
SLK15L1WA6	196670	1 m	63.5 mm	55 mm	19 mm	12.5 mm	90° Max	195 N
SLK15L2WA6	196671	2 m	63.5 mm	55 mm	19 mm	12.5 mm	90° Max	195 N
SLK15L3WA6	196672	3 m	63.5 mm	55 mm	19 mm	12.5 mm	90° Max	195 N
SLK15L5WA6	196673	5 m	63.5 mm	55 mm	19 mm	12.5 mm	90° Max	195 N
Wire Rope Diameter: 2.0 mm								
SLK2L2WA6	196734	2 m	63.5 mm	55 mm	19 mm	12.5 mm	90° Max	440 N
SLK2L3WA6	196735	3 m	63.5 mm	55 mm	19 mm	12.5 mm	90° Max	440 N
SLK2L5WA6	196736	5 m	63.5 mm	55 mm	19 mm	12.5 mm	90° Max	440 N
SLK2L7WA6	196737	7 m	63.5 mm	55 mm	19 mm	12.5 mm	90° Max	440 N
Wire Rope Diameter: 3.0 mm								
SLK3L1WA6	196722	1 m	63.5 mm	62 mm	24 mm	16.0 mm	90° Max	890 N
SLK3L2WA6	196723	2 m	63.5 mm	62 mm	24 mm	16.0 mm	90° Max	890 N
SLK3L3WA6	196724	3 m	63.5 mm	62 mm	24 mm	16.0 mm	90° Max	890 N
SLK3L5WA6	196725	5 m	63.5 mm	62 mm	24 mm	16.0 mm	90° Max	890 N
SLK3L7WA6	196726	7 m	63.5 mm	62 mm	24 mm	16.0 mm	90° Max	890 N
SLK3L10WA6	196727	10 m	63.5 mm	62 mm	24 mm	16.0 mm	90° Max	890 N

Drill Bit Diameter	Drill Hole Depth	Embedment Depth
6 mm	60 mm	55 mm Min

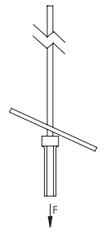
Speed Link SLK System

SLK WITH TOGGLE

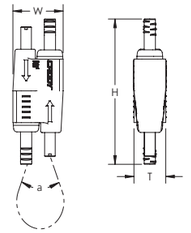
- Complete system includes wire, locking device and pre-assembled toggle end fitting
- Attaches to clearance holes in a variety of structures or hanging devices
- Ideal for supporting lighting fixtures
- Also available in Y-toggle configuration











Material: Steel; Zinc Alloy; Polypropylene
Finish: Electrogalvanized
Static Load Safety Factor: 5:1
Complies With: SMACNA HVAC-DCS

Part Number	Article Number	Wire Rope Length	A	B	Height H	Width W	Thickness T	Angle a	Static Load F	Standard Packaging Quantity
Wire Rope Diameter: 1.5 mm										
SLK15L1T	196521	1 m	39 mm	5 mm	55 mm	19 mm	12.5 mm	90° Max	195 N	20 pc
SLK15L2T	196522	2 m	39 mm	5 mm	55 mm	19 mm	12.5 mm	90° Max	195 N	20 pc
SLK15L2TR2	196644	2 m	39 mm	5 mm	55 mm	19 mm	12.5 mm	90° Max	195 N	15 x 2 pc
SLK15L3T	196523	3 m	39 mm	5 mm	55 mm	19 mm	12.5 mm	90° Max	195 N	20 pc
SLK15L3TR2	196645	3 m	39 mm	5 mm	55 mm	19 mm	12.5 mm	90° Max	195 N	15 x 2 pc
SLK15L5T	196524	5 m	39 mm	5 mm	55 mm	19 mm	12.5 mm	90° Max	195 N	20 pc
SLK15L7T	196525	7 m	39 mm	5 mm	55 mm	19 mm	12.5 mm	90° Max	195 N	20 pc
SLK15L10T	196526	10 m	39 mm	5 mm	55 mm	19 mm	12.5 mm	90° Max	195 N	20 pc

Speed Link SLK System

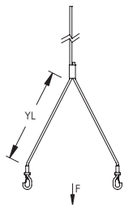
SLK WITH Y-HOOK

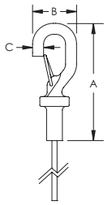
- Complete system includes wire, locking device and two pre-assembled hook end fittings
- Fastens to the building structure and hooks to hanging services and tray
- Spring latch helps provide secure connection
- Convenient design allows one hook to be temporarily detached for maintenance or to add cables to the tray
- Single drop with double hook provides increased stability to the system
- Also available in a single-hook end fitting configuration

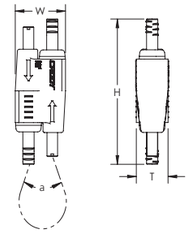












Material: Steel; Zinc Alloy; Polypropylene
Finish: Electrogalvanized
Static Load Safety Factor: 5:1
Complies With: SMACNA HVAC-DCS

Part Number	Article Number	Wire Rope Length	Wire Rope "Y" Length YL	A	B	C	Static Load F	Standard Packaging Quantity
Wire Rope Diameter: 2.0 mm								
SLK2YH500L2	196549	2 m	0.5 m	58.4 mm	22.9 mm	6.4 mm	440 N	10 pc
SLK2YH500L3	196550	3 m	0.5 m	58.4 mm	22.9 mm	6.4 mm	440 N	10 pc
SLK2YH500L7	196551	7 m	0.5 m	58.4 mm	22.9 mm	6.4 mm	440 N	10 pc

Height H	Width W	Thickness T	Angle a
55 mm	19 mm	12.5 mm	90° Max

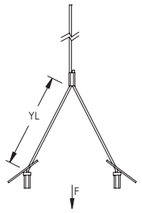
Speed Link SLK System

SLK WITH Y-TOGGLE

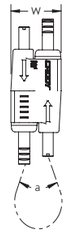
- Complete system includes wire, locking device and two pre-assembled toggle end fittings
- Attaches to clearance holes in a variety of structures or hanging devices
- Ideal for supporting lighting fixtures

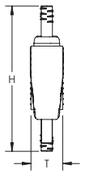












Material: Steel; Zinc Alloy; Polypropylene
Finish: Electrogalvanized
Static Load Safety Factor: 5:1
Complies With: SMACNA HVAC-DCS

Part Number	Article Number	Wire Rope Length	Wire Rope "Y" Length YL	A	B	Static Load F	Standard Packaging Quantity
Wire Rope Diameter: 1.5 mm							
SLK15Y300L3R2	196648	3 m	0.3 m	39 mm	5 mm	195 N	20 x 2 pc
SLK15Y500L3	196528	3 m	0.5 m	39 mm	5 mm	195 N	20 pc
Wire Rope Diameter: 2.0 mm							
SLK2Y500L3	196554	3 m	0.5 m	42 mm	8 mm	440 N	10 pc
SLK2Y300L7	196556	7 m	0.3 m	42 mm	8 mm	440 N	10 pc

Height H	Width W	Thickness T	Angle a
55 mm	19 mm	12.5 mm	90° Max

nVent CADDY Speed Link SLS System

LOCKING DEVICE FEATURES

The nVent CADDY Speed Link SLS system is an innovative cable solution for supporting metal framing channels, ceiling fan units, and other hangers. The locking device is similar to the keyless design of nVent CADDY Speed Link SLK but with a single barrel. The outside of the housing is threaded and is held in a channel or hanger by a push-to-install retaining nut. This engineered elongated retaining nut reduces unwanted sway of the trapeze during installation and provides higher stability. The system allows for quick and easy prefabrication of complex assemblies at ground level that can be easily lifted and held in place by wire rope.

SAFETY FEATURES

Length of stem allows the device to be installed in strut profiles without the need to insert fingers or tools into the strut

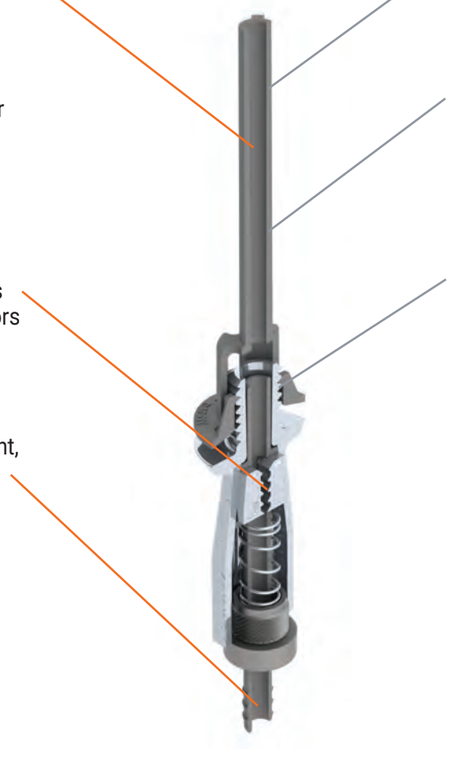
UL Listing on all 4 end fittings for pre-cut lengths

Two jaws grip the wire inside the device, holding the wire more securely than single-cam devices common among most competitors

Keyless release tube is designed to allow safe and easy adjustment, even while wearing bulky gloves

AESTHETIC FEATURES

Low profile locking device provides a positive aesthetic to a finished project



Similar housing style creates a consistent look when used in projects alongside the Speed Link SLK System

EASE OF USE FEATURES

"Push-to-install" retaining nut simplifies installation

Engineered elongated retaining nut reduces unwanted sway of the trapeze during installation and provides higher stability

The outside of the housing is threaded for easy and secure attachment to the nut

nVent CADDY Speed Link is lighter, faster to install, easier to transport and generates less waste than alternative hanging methods

Two tool-free locking devices are available for three wire sizes:

- SLS2 compatible with 1.5mm and 2mm wire
- SLS3 compatible with 3mm wire

The color of the line corresponds to the larger goal of each feature:

SAFETY FEATURES
AESTHETIC FEATURES
EASE OF USE FEATURES

Speed Link SLS System

SLS WITH DECKING HOOK

Complete system includes wire, locking device and pre-assembled decking hook end fitting

Quickly and easily attaches to hollow metal decking

Spring-loaded ends snap into decking hole and lock into place

Innovative design helps protect the wire from sharp edges of decking hole, minimizing risk of damage to wire

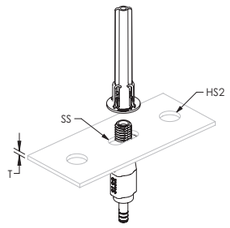
Finger tightening of nut secures the locking device into position without tools

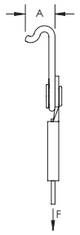
Installs in strut profiles without the need to insert fingers or tools into the strut

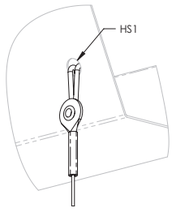


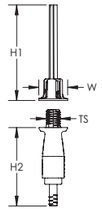












Material: Steel; Zinc Alloy; Polypropylene
Finish: Electrogalvanized
Static Load Safety Factor: 5:1
Complies With: SMACNA HVAC-DCS

Part Number	Article Number	Wire Rope Length	Roof Decking Sheet Thickness	A	Hole Size 1 HS1	Static Load F
Wire Rope Diameter: 2.0 mm						
SLS2L3DH	196753	3 m	1.5 mm Max	9.2 mm	8 mm	270 N
SLS2L5DH	196754	5 m	1.5 mm Max	9.2 mm	8 mm	270 N
SLS2L7DH	196755	7 m	1.5 mm Max	9.2 mm	8 mm	270 N

Thread Size TS	Height 1 H1	Height 2 H2	Width W	Thickness T	Hole Size 2 HS2	Slot Size SS
M8	53 mm	46.5 mm	16 mm	4 mm Max	8 – 10 mm	8 x 6.5 mm – 8 x 10 mm

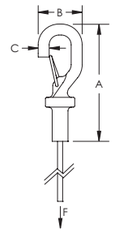
The 2 mm locking device is compatible with C-Channel Types E0 and E0L.
Total load per wire on a multi-tier trapeze must not exceed static load.
Load rating is only applicable if the load-bearing capacity of the supporting element (steel decking) is adequate.
Check with deck manufacturer for recommended load capacity.

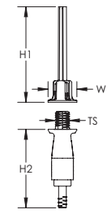
Speed Link SLS System

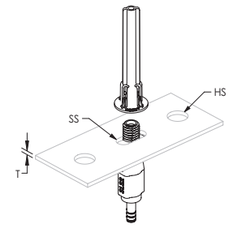
SLS WITH HOOK

- Complete system includes wire, locking device and pre-assembled hook end fitting
- Hooks to a wide range of nVent CADDY fasteners
- Fastens to the building structure or hanging services by looping around and hooking to wire rope
- Easy to remove for applications requiring maintenance
- Spring latch helps provide secure connection
- Insert cable through hole and use bottom side of hook as an end stop
- Finger tightening of nut secures the locking device into position without tools
- Installs in strut profiles without the need to insert fingers or tools into the strut









Material: Steel; Zinc Alloy; Polypropylene
Finish: Electrogalvanized
Static Load Safety Factor: 5:1
Complies With: SMACNA HVAC-DCS

Part Number	SLS2L1	SLS2L2	SLS2L3	SLS2L5	SLS2L7	SLS2L10
Wire Rope Diameter: 2 mm						
Article Number	196741	196742	196743	196744	196745	196746
Wire Rope Length	1 m	2 m	3 m	5 m	7 m	10 m
A	57.0 mm					
B	20.0 mm					
C	5.5 mm					
Height 1 (H1)	53 mm					
Height 2 (H2)	43.5 mm					
Thread Size (TS)	M8					
Width (W)	16 mm					
Hole Size (HS)	8 – 10 mm					
Slot Size (SS)	8 x 6.5 mm – 8 x 10 mm					
Thickness (T)	4 mm Max					
Static Load (F)	270 N					
Standard Packaging Quantity	10 pc					

The 2 mm locking device is compatible with C-Channel Types E0 and E0L.
The 3 mm locking device is compatible with C-Channel Types E1, E2, E2L, E3, E4, E5, Strut Channel Type C, Slotted, Strut Channel Type A, Slotted, Strut Channel Type AS, Perforated, Strut Channel Type CC, Slotted, Strut Channel Type AA, Slotted.
Total load per wire on a multi-tier trapeze must not exceed static load.

Speed Link SLS System






Part Number	SLS3L1	SLS3L2	SLS3L3	SLS3L5	SLS3L7	SLS3L10
Wire Rope Diameter: 3 mm						
Article Number	196747	196748	196749	196750	196751	196752
Wire Rope Length	1 m	2 m	3 m	5 m	7 m	10 m
A	57.6 mm					
B	23.2 mm					
C	6.1 mm					
Height 1 (H1)	53 mm					
Height 2 (H2)	46.5 mm					
Thread Size (TS)	M12					
Width (W)	20 mm					
Hole Size (HS)	12 – 14 mm					
Slot Size (SS)	12 x 10 mm – 12 x 14 mm					
Thickness (T)	6 mm Max					
Static Load (F)	670 N					
Standard Packaging Quantity	10 x 10 pc	10 x 10 pc	10 x 5 pc	10 x 5 pc	5 x 5 pc	5 x 5 pc

Speed Link SLS System

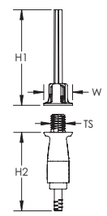
SLS WITH THREADED STUD END

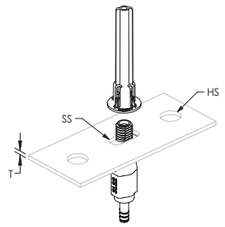
- Complete system includes wire, locking device and pre-assembled threaded stud end fitting
- Attaches to structures with threaded anchors or devices with threaded hole
- Finger tightening of nut secures the locking device into position without tools
- Installs in strut profiles without the need to insert fingers or tools into the strut











Material: Steel; Polypropylene; Zinc Alloy
Finish: Electrogalvanized
Static Load Safety Factor: 5:1
Complies With: SMACNA HVAC-DCS

Part Number	Article Number	Wire Rope Length	Rod Size RS	Screw Length L	Static Load F
Wire Rope Diameter: 2.0 mm					
SLS2L2SEM8	196756	2 m	M8	45 mm	270 N
SLS2L3SEM8	196757	3 m	M8	45 mm	270 N
SLS2L5SEM8	196758	5 m	M8	45 mm	270 N

Thread Size TS	Height 1 H1	Height 2 H2	Width W	Thickness T	Hole Size HS	Slot Size SS
M8	53 mm	43.5 mm	16 mm	4 mm Max	8 – 10 mm	8 x 6.5 mm – 8 x 10 mm

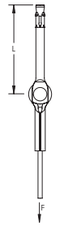
The 2 mm locking device is compatible with C-Channel Types E0 and E0L.
Total load per wire on a multi-tier trapeze must not exceed static load.

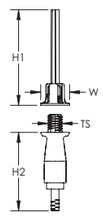
Speed Link SLS System

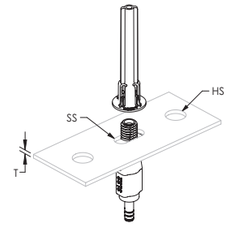
SLS WITH WEDGE ANCHOR

- Complete system includes wire, locking device and wedge anchor from Powers Fasteners, Inc.
- Quickly and easily attaches into cracked and non-cracked concrete
- Installs in strut profiles without the need to insert fingers or tools into the strut
- Finger tightening of nut secures the locking device into position without tools
- No special tools required
- ETA-13/0106 approval available for wedge anchor from Powers Fasteners, Inc







Material: Steel; Polypropylene; Zinc Alloy
Finish: Electrogalvanized
Static Load Safety Factor: 5:1
Complies With: SMACNA HVAC-DCS

Part Number	Article Number	Wire Rope Length	Length L	Drill Bit Diameter	Drill Hole Depth	Embedment Depth	Static Load F
Wire Rope Diameter: 2.0 mm							
SLS2L3WA6	196759	3 m	63.5 mm	6 mm	60 mm	55 mm Min	270 N
SLS2L5WA6	196760	5 m	63.5 mm	6 mm	60 mm	55 mm Min	270 N
SLS2L7WA6	196761	7 m	63.5 mm	6 mm	60 mm	55 mm Min	270 N

Thread Size TS	Height 1 H1	Height 2 H2	Width W	Thickness T	Hole Size HS	Slot Size SS
M8	53 mm	43.5 mm	16 mm	4 mm Max	8 – 10 mm	8 x 6.5 mm – 8 x 10 mm

The 2 mm locking device is compatible with C-Channel Types E0 and E0L.
Total load per wire on a multi-tier trapeze must not exceed static load.

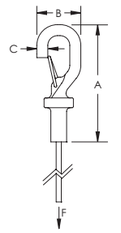
Speed Link SLS System

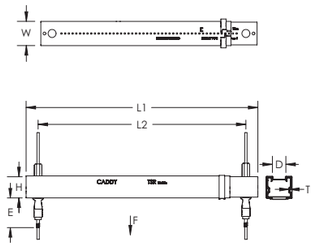
SLS TRAPEZE KIT

- Out of the box trapeze solution includes Telescoping Strut Replacement, wire rope with pre-assembled hook end-fitting, and two nVent CADDY Speed Link SLS locking devices
- Telescopes to the desired length and is locked in place by snapping closed a spring retainer clip
- Standard strut profile runs the entire length of the Telescoping Strut Replacement, allowing most standard fittings to be placed anywhere between the wire rope supports
- Supports up to seven 2" (50 DN) conduits, six 2" (50 DN) water filled pipes at 10' (3 m) spacing, or up to 18" (450 mm) cable tray
- Conduit and pipe can be placed directly on the strut profile, saving vertical space in buildings with limited room for installation
- Fastens to the building structure or hanging services by looping around and hooking to wire rope
- Hooks to a wide range of nVent CADDY fasteners
- Finger tightening of nut secures the locking device into position without tools
- Installs in telescoping strut replacement without the need to insert fingers or tools into the channel
- Easy to remove for applications requiring maintenance









Material: Steel; Zinc Alloy; Polyamide
Finish: Electrogalvanized; Pregalvanized

Part Number	Article Number	Wire Rope Length	Length 1 L1	Length 2 L2	Static Load F1	Static Load F2
Wire Rope Diameter: 3.0 mm						
TSR1220SLS3	366595	3 m	356 – 546 mm	318 – 508 mm	1,330 N	880 N

Height H	Width W	Thickness T	A	B	C	D	E
35 mm	41 mm	1 mm	57.6 mm	23.2 mm	6.1 mm	22.2 mm	46.5 mm

Static Load F1 represents a distributed load for 12" – 20" (300 – 500 mm) installations and a point load for 12" – 16" (300 – 400 mm) installations.
Static Load F2 represents a point load for 16" – 20" (400 – 500 mm) installations.

nVent CADDY Speed Link LD System

LOCKING DEVICE FEATURES

The nVent CADDY Speed Link LD system is ideal for hanging light-duty fixtures, ductwork, speakers, alarm sensors, signage and pipes in applications that require all stainless steel components for a greater corrosion resistance.

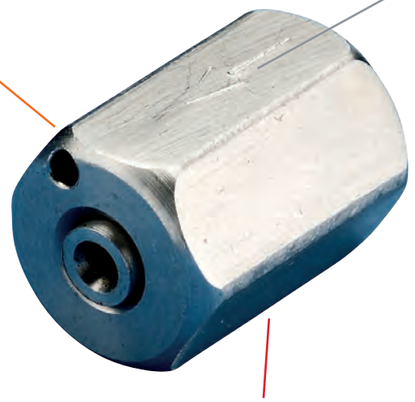
SAFETY FEATURES

Locking devices made of all stainless steel 304 (EN 1.4301) components for a greater corrosion resistance

Safety factor 5:1 is consistent with the rest of the nVent CADDY Speed Link range

AESTHETIC FEATURES

Low-profile locking device minimizes visual impact



Stainless steel ball gripping mechanism automatically adjusts the locking device close to the service, minimizing visual impact

Stainless steel finish gives the installation a clean and professional look

EASE OF USE FEATURES

An arrow on the locking device indicates which direction the wire must be inserted first, to make a loop

Hexagonal profile allows it to be used at a stop

Available in bulk or with 1.5mm SSTL wire with hook end-fitting compatible with a wide range of nVent CADDY Fasteners

The color of the line corresponds to the larger goal of each feature:

SAFETY FEATURES
AESTHETIC FEATURES
EASE OF USE FEATURES

Speed Link LD System

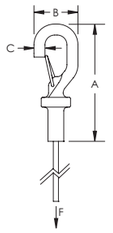
LD WITH HOOK

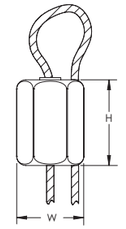
- Complete system includes wire, locking device and pre-assembled hook end fitting
- Hooks to a wide range of nVent CADDY fasteners
- Fastens to the building structure or hanging services by looping around and hooking to wire rope
- Easy to remove for applications requiring maintenance
- Spring latch helps provide secure connection
- Insert cable through hole and use bottom side of hook as an end stop











Material: Stainless Steel 304 (EN 1.4301)
Static Load Safety Factor: 5:1

Part Number	Article Number	Wire Rope Length	A	B	C	Height H	Width W	Static Load F	Standard Packaging Quantity
Wire Rope Diameter: 1.5 mm									
SLD15L2S	195935	2 m	58.4 mm	22.9 mm	6.4 mm	19 mm	12.7 mm	195 N	20 x 2 pc
SLD15L5S	195940	5 m	58.4 mm	22.9 mm	6.4 mm	19 mm	12.7 mm	195 N	20 x 2 pc
SLD15L10S	195945	10 m	58.4 mm	22.9 mm	6.4 mm	19 mm	12.7 mm	195 N	20 x 2 pc

nVent CADDY Speed Link SLDM System

LOCKING DEVICE FEATURES

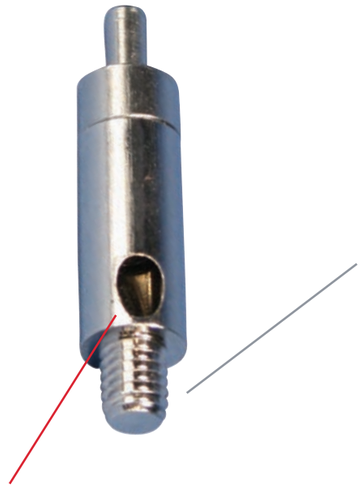
The nVent CADDY Speed Link SLDM system is a light-duty rope system with an ultra-low-profile locking device and threaded stud. The system is ideal for supporting electrical boxes, lighting and signage.

SAFETY FEATURES

Safety factor 5:1is consistent with the rest of the nVent CADDY Speed Link range

AESTHETIC FEATURES

Ultra low profile locking device and M6 threaded stud minimizes visual impact



Side exit for the wire leaves the wire on top of the service, minimizing visual impact

One-way locking device allows for a narrow profile, minimizing visual impact

Metallic finish gives the installation a clean and professional look

EASE OF USE FEATURES

Keyless locking device is adjustable even after installation

Available with 1.5mm wire with toggle or hook end-fitting compatible with a wide range of nVent CADDY fasteners

M6 thread allows the device to attach to clearance holes in a variety of structures or hanging devices

The color of the line corresponds to the larger goal of each feature:

SAFETY FEATURES
AESTHETIC FEATURES
EASE OF USE FEATURES

Speed Link SLDM System

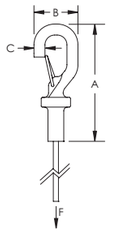
SLDM WITH HOOK

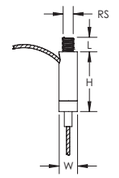
- Complete system includes wire, locking device and pre-assembled hook end fitting
- Ideal for supporting lighting, ductwork and other installation projects
- Sleek, low-profile locking device reduces visual impact
- Keyless locking device is adjustable even after installation











Material: Steel
Finish: Electrogalvanized
Static Load Safety Factor: 5:1

Part Number	Article Number	Wire Rope Length	A	B	C	Static Load F
Wire Rope Diameter: 1.5 mm						
SLDM615L1	196028	1 m	58.4 mm	22.9 mm	6.4 mm	195 N
SLDM615L2	196029	2 m	58.4 mm	22.9 mm	6.4 mm	195 N
SLDM615L3	196030	3 m	58.4 mm	22.9 mm	6.4 mm	195 N

Rod Size RS	Length L	Height H	Width W
M6	7 mm	24.5 mm	9.2 mm

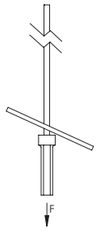
Speed Link SLDM System

SLDM WITH TOGGLE

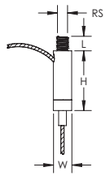
- Complete system includes wire, locking device and pre-assembled toggle end fitting
- Attaches to clearance holes in a variety of structures or hanging devices
- Ideal for supporting lighting fixtures
- Sleek, low-profile locking device reduces visual impact
- Keyless locking device is adjustable even after installation











Material: Steel
Finish: Electrogalvanized

Part Number	Article Number	Wire Rope Length	A	B	Static Load F
Wire Rope Diameter: 1.5 mm					
SLDM615L2T	196044	2 m	39 mm	5 mm	195 N

Rod Size RS	Length L	Height H	Width W
M6	7 mm	24.5 mm	9.2 mm

nVent CADDY Speed Link Extensions

EXTENSIONS FEATURES

nVent CADDY Speed Link extensions allow standard nVent CADDY Speed Link Systems to be lengthened for long drop applications, putting the height adjustment closer to the object being supported. These short sections of wire include specialty end fittings at one end and a small loop or hook at the other. The extensions combine perfectly with other nVent CADDY Speed Link Systems, and can also be used separately as a backup wire.

- Ideal for use with standard nVent CADDY Speed Link Systems
- A range of end fittings easily adapt to various jobs
- Wire rope is securely looped and crimped
- Ideal as a support or secondary wire

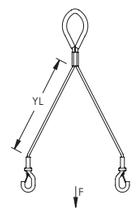
Y-HOOK WITH EYELET EXTENSION

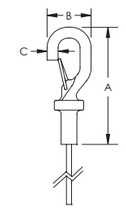
- Double hook offers easy attachment to basket tray, cable tray or lighting
- Convenient design allows one hook to be temporarily detached for maintenance or to add cables to the tray
- Y-design provides improved stability
- Spring latch helps provide secure connection











Material: Steel
Finish: Electrogalvanized
Static Load Safety Factor: 5:1

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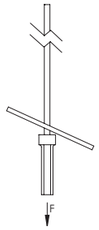
Part Number	Article Number	Wire Rope "Y" Length YL	A	B	C	Static Load F	Standard Packaging Quantity
Wire Rope Diameter: 2 mm							
SLD2YH500	196015	0.5 m	58.4 mm	22.9 mm	6 mm	440 N	10 pc
Wire Rope Diameter: 3 mm							
SLD3YH800	195998	0.8 m	58.4 mm	22.9 mm	6 mm	880 N	20 pc

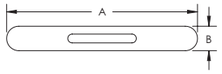
nVent CADDY Speed Link locking device not included.

Speed Link Extensions

Y-TOGGLE WITH EYELET EXTENSION

- Attaches to clearance holes in a variety of structures or hanging devices
- Ideal for supporting lighting fixtures
- Y-design provides improved stability









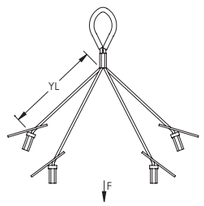
Material: Steel
Finish: Electrogalvanized
Static Load Safety Factor: 5:1

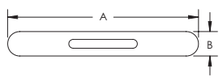
Part Number	Article Number	Wire Rope "Y" Length YL	A	B	Static Load F	Standard Packaging Quantity
Wire Rope Diameter: 1.5 mm						
SLD15Y500	195960	0.5 m	39 mm	5 mm	195 N	20 pc
SLD15Y800	195965	0.8 m	39 mm	5 mm	195 N	20 pc
Wire Rope Diameter: 2 mm						
SLD2Y500	176870	0.5 m	42 mm	8 mm	440 N	20 pc

nVent CADDY Speed Link locking device not included.

QUAD-TOGGLE WITH EYELET EXTENSION

- Secure hanging solution for use on control access points, projectors, etc.









Material: Steel
Finish: Electrogalvanized
Static Load Safety Factor: 5:1

Part Number	Article Number	Wire Rope "Y" Length YL	A	B	Static Load F	Standard Packaging Quantity
Wire Rope Diameter: 1.5 mm						
SLD15QT250	196007	0.25 m	39 mm	5 mm	195 N	20 pc

nVent CADDY Speed Link locking device not included.

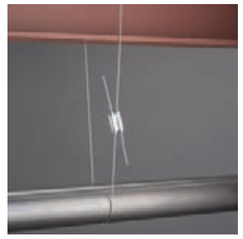
nVent CADDY Locking Devices and Wire Rope

COMPONENT FEATURES

The individual components of the nVent CADDY Speed Link Universal Support System can be configured to meet installers' unique needs. nVent CADDY Speed Link locking devices and wire rope are available in bulk and allow installers to customize the system for each project.

SLK SPOOL KIT

- Kit includes spool of nVent CADDY Speed Link steel wire and nVent CADDY Speed Link SLK locking devices
- Wire spool and locking devices are packaged together, simplifying transportation to the jobsite and reducing inventory
- Packaging allows end-users to pull and cut any length of wire that is needed without having to take the spool out of the box
- Ideal for rework and installations where custom lengths of wire may be needed
- Wire rope constructed from seven bundles of seven strands each of steel aircraft wire
- Push/pull keyless release allows easy adjustments
- Low-profile locking device minimizes visual impact
- Cable spread of 90 degrees allows positioning the device closer to the load
- Keyless release tubes are easy to operate while wearing gloves
- Double-sided locking mechanism enables simple height adjustment









Material: Steel
Finish: Electrogalvanized

Part Number	Article Number	Wire Rope Diameter	Length	Number of Locking Devices
SLK15L500PACK	196045	1.5 mm	150 m	100
SLK15L50MPACK	196046	1.5 mm	50 m	25
SLK2L100PACK	196047	2.0 mm	100 m	50

Speed Link Locking Devices and Wire Rope

WIRE ROPE CUTTER

- Designed to reduce wire rope fraying



Material: Steel

Part Number	Article Number
SLWC	195853

SLK SPOOL KIT WITH WIRE ROPE CUTTER

- Includes two nVent CADDY Speed Link SLK Spool Kits with wire spools and locking devices and one wire rope cutter
- Wire spool and locking devices are packaged together, simplifying transportation to the jobsite and reducing inventory
- Packaging allows end-users to pull and cut any length of wire that is needed without having to take the spool out of the box
- Ideal for rework and installations where custom lengths of wire may be needed
- Wire rope constructed from seven bundles of seven strands each of steel aircraft wire
- Push/pull keyless release allows easy adjustments
- Low-profile locking device minimizes visual impact
- Cable spread of 90 degrees allows positioning the device closer to the load
- Keyless release tubes are easy to operate while wearing gloves
- Double-sided locking mechanism enables simple height adjustment









Material: Steel
Finish: Electrogalvanized

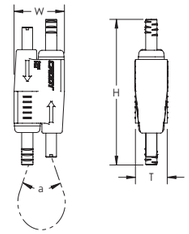
Part Number	Article Number	Wire Rope Diameter	Length	Number of Locking Devices
SLK15PROMOPACK	196048	1.5 mm	100 m	50

Length and Number of Locking Devices is the combined total of two spool kits.
Each individual spool kit includes 50 m (164') of wire rope and 25 locking devices.

Speed Link Locking Devices and Wire Rope

SLK LOCKING DEVICE

- Push/pull keyless release allows easy adjustments
- Low-profile locking device minimizes visual impact
- Cable spread of 90 degrees allows positioning the device closer to the load
- Keyless release tubes are easy to operate while wearing gloves
- Double-sided locking mechanism enables simple height adjustment





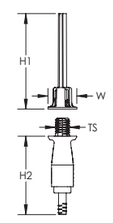
Material: Steel; Polypropylene; Zinc Alloy

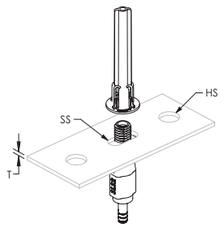
Part Number	Article Number	Wire Rope Diameter	Height H	Width W	Thickness T	Angle a	Certif-ications	Standard Packaging Quantity
SLK2C200	196600	1.5 – 2.0 mm	55 mm	19 mm	12.5 mm	90° Max	cULus	200 pc
SLK2R10	196770	1.5 – 2.0 mm	55 mm	19 mm	12.5 mm	90° Max	cULus	100 pc
SLK3C200	196730	3.0 mm	62 mm	24 mm	16.0 mm	90° Max	–	200 pc

Locking devices are only to be used with nVent CADDY Speed Link wire spools and accessories with the same specified Wire Rope Diameter as the locking device. Do not use with any other wires.

SLS LOCKING DEVICE

- Single barrel locking device allows for quick prefabrication of strut or brackets
- Push-on nut quickly and securely installs to strut or bracket to keep the locking device in position and eases installation
- Finger tightening of nut secures the locking device into position without tools
- Installs in strut profiles without the need to insert fingers or tools into the strut
- Push-on nut guides the cable into the locking device and brings stability to the support
- Installs with open side of the strut channel facing up or down for more flexibility







Material: Steel; Polypropylene; Zinc Alloy

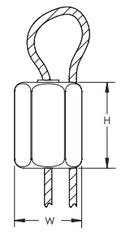
Part Number	Article Number	Thread Size TS	Height 1 H1	Height 2 H2	Width W	Thickness T	Hole Size HS	Slot Size SS
Wire Rope Diameter: 2 mm								
SLS2C50	196739	M8	53 mm	43.5 mm	16 mm	4 mm Max	8 – 10 mm	8 x 6.5 mm – 8 x 10 mm
Wire Rope Diameter: 3 mm								
SLS3C50	196740	M12	53 mm	46.5 mm	20 mm	6 mm Max	12 – 14 mm	12 x 10 mm – 12 x 14 mm

The 2 mm locking device is compatible with C-Channel Types E0 and E0L.
The 3 mm locking device is compatible with C-Channel Types E1, E2, E2L, E3, E4, E5, Strut Channel Type C, Slotted, Strut Channel Type A, Slotted, Strut Channel Type AS, Perforated, Strut Channel Type CC, Slotted, Strut Channel Type AA, Slotted.
Locking devices are only to be used with nVent CADDY Speed Link wire spools and accessories with the same specified Wire Rope Diameter as the locking device. Do not use with any other wires.

Speed Link Locking Devices and Wire Rope

LD LOCKING DEVICE

- Low-profile locking device minimizes visual impact
- Suitable for 1.5 mm nVent CADDY Speed Link cable





Material: Stainless Steel 304 (EN 1.4301)

Part Number	Article Number	Wire Rope Diameter	Height H	Width W
SLJR200	196008	1.5 mm	19 mm	12.7 mm

The 1.5 mm locking devices are only to be used with the SLC15L1000SP and SLC15L50MSP wire spools, or any other 1.5 mm nVent CADDY Speed Link accessories. Do not use with any other wires.

WIRE SPOOL

- Spool with nVent CADDY Speed Link steel wire
- Wire rope constructed from seven bundles of seven strands each of steel aircraft wire



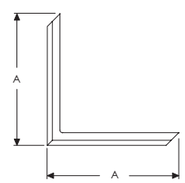
Material: Steel
Finish: Electrogalvanized

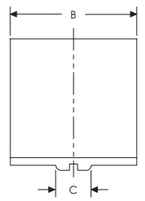
Part Number	Article Number	Wire Rope Diameter	Length	Static Load
SLC15L50MSP	196023	1.5 mm	50 m	195 N
SLC15L1000SP	196001	1.5 mm	300 m	195 N
SLC2L100SP	196022	2.0 mm	100 m	440 N
SLC2L1000SP	196002	2.0 mm	300 m	440 N
SLC3L1000SP	196003	3.0 mm	300 m	880 N

nVent CADDY Speed Link Accessories

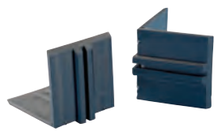
AIR DUCT CORNER PROTECTOR

- Includes rib to keep the wire rope in place
- Prevents the wire rope from damaging the duct







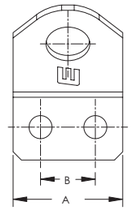


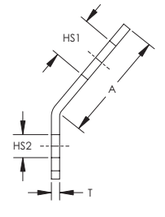
Material: Polyvinylchloride
Color: Black

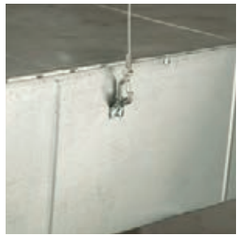
Part Number	Article Number	A	B	C
SLADCP	195851	52 mm	50 mm	14 mm

AIR DUCT SUPPORT ATTACHMENT

- Angled bracket for installation on to round or square duct
- Designed to accept nVent CADDY Speed Link wire rope or hook









Material: Steel
Finish: Electrogalvanized

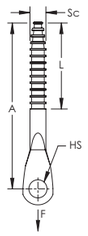
Part Number	Article Number	Hole Size 1 HS1	Hole Size 2 HS2	A	B	Thickness T
SLADS	195852	8 mm	4.2 mm	20 mm	10 mm	1.5 mm

CONCRETE FIXING EYEBOLT SCREW

- For use in concrete and brick
- Includes drill bit adaptor for easy installation





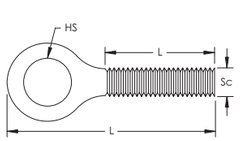


Material: Steel
Finish: Electrogalvanized

Part Number	Article Number	Hole Size HS	Screw Diameter Sc	Screw Length L	A	Drill Bit Diameter	Static Load F
CFEB05	195864	6.5 mm	H6	45 mm	60 mm	5 mm	700 N

EYE SCREW

- Designed to accept nVent CADDY Speed Link wire rope or hook





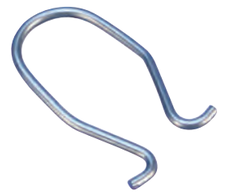
Material: Steel
Finish: Electrogalvanized

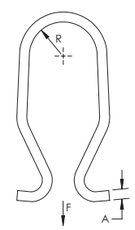
Part Number	Article Number	Screw Diameter Sc	Screw Length L	Hole Size HS	Length L
SLEBM6	195854	M6	20 mm	7.2 mm	37.5 mm
SLEBM8	195856	M8	25 mm	8.5 mm	50.0 mm
SLEBWS	195858	H6	32 mm	8.8 mm	60.0 mm

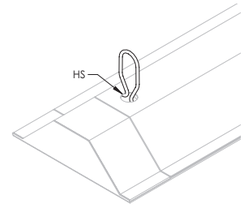
LIGHT DUTY LIGHT FIXTURE EYELET

- Inserts into openings of light fixture
- Hook or loop through lighting clip to suspend lighting from wire rope or chain









Material: Stainless Steel 302 (EN 1.4324)

Part Number	Article Number	Radius R	A	Hole Size HS	Static Load F
SLLC250	195863	5.1 mm	1.5 mm	6 mm Min	55 N

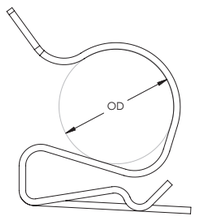
Do not use light fixture eyelet as a lifting device.

MC/AC CABLE CLIP

- Spring steel cable attachment
- Allows for electrical cable to be attached to nVent CADDY Speed Link wire rope







Material: Spring Steel
Finish: nVent CADDY Armour

Part Number	Article Number	Wire Rope Diameter	Outer Diameter OD
SL1214	195860	1.5 – 3.0 mm	11.8 – 14.2 mm
SL1518	195861	1.5 – 3.0 mm	12.7 – 18.2 mm

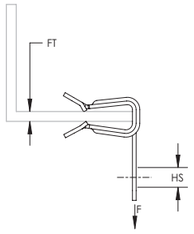
Related Products

HAMMER-ON FLANGE CLIP, SIDE MOUNT

- Provides an attachment for wire, S-hooks, chain, nVent CADDY Speed Link or other assemblies to flanges and profiles
- Fits most beams
- Installs with just a hammer







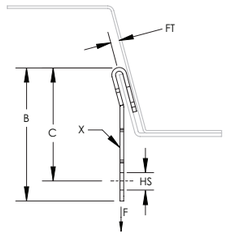
Finish: nVent CADDY Armour

Part Number	Article Number	Flange Thickness FT	Hole Size HS	Static Load F	Certifications	Standard Packaging Quantity
Material: Spring Steel						
2H4	170010	2 – 3 mm	7.1 mm	700 N	cULus	100 pc
4H24	170020	3 – 8 mm	7.1 mm	900 N	cULus	100 pc
4H24R5	191018	3 – 8 mm	7.1 mm	900 N	cULus	10 x 5 pc
4H24SP25	172320	3 – 8 mm	7.1 mm	900 N	–	10 x 25 pc
4H58	170030	8 – 14 mm	7.1 mm	900 N	cULus	100 pc
4H58R5	191019	8 – 14 mm	7.1 mm	900 N	cULus	10 x 5 pc
4H58SP25	172350	8 – 14 mm	7.1 mm	900 N	–	10 x 25 pc
4H912	170040	14 – 20 mm	7.1 mm	900 N	cULus	100 pc
4H912R5	191045	14 – 20 mm	7.1 mm	900 N	cULus	10 x 5 pc
4H912SP25	172380	14 – 20 mm	7.1 mm	900 N	–	10 x 25 pc
4H1318	170045	21 – 28 mm	7.1 mm	900 N	cULus	50 pc
Material: Stainless Steel 301 (EN 1.4310)						
4H24S1	179610	3 – 8 mm	7.1 mm	650 N	–	100 pc
4H58S1	179620	8 – 14 mm	7.1 mm	650 N	–	100 pc
4H912S1	179630	14 – 20 mm	7.1 mm	650 N	–	100 pc

Related Products

OCDC DECK HANGER

- Provide a mobile mounting hole
- Attaches to decking





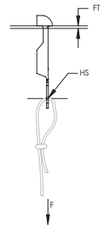


Material: Steel
Finish: nVent CADDY Armour

Part Number	Article Number	Hole Size HS	Flange Thickness FT	B	C	X	Static Load F
OCDC68MM	160700	6.8 mm	1.0 – 2.5 mm	54 mm	46 mm	13 x 8.5 mm	400 N

EER TRAPEZOIDAL DECK HANGER

- Supports wire from decking







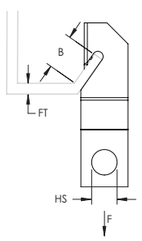
Material: Steel
Finish: nVent CADDY Armour

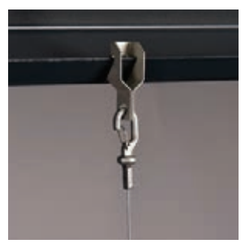
Part Number	Article Number	Hole Size HS	Drill Bit Diameter	Static Load F1	Static Load F2	Standard Packaging Quantity
EER	171470	0.8 – 3.0 mm	6.8 mm	7 mm	450 N	900 N	100 pc

Static Load F1 represents 0.8 – 2.0 mm flange thickness. Static Load F2 represents 2.0 – 3.0 mm flange thickness.

122 SERIES Z PURLIN CLIP

- Hammer-on clip compensates for angle of purlin
- Provides a portable hole
- Side mount







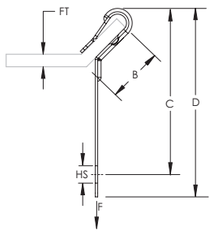
Material: Steel
Finish: nVent CADDY Armour

Part Number	Article Number	Hole Size HS	Flange Thickness FT	B	Static Load F
122	171690	6.8 mm	2.8 mm Max	15 mm Min	450 N

Related Products

AF SERIES Z PURLIN CLIP

- Angle flange clip for wire or chain suspensions from Z purlins
- Installs from floor with VAFT tool and conduit





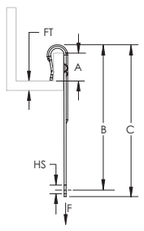


Material: Steel
Finish: nVent CADDY Armour

Part Number	Article Number	Hole Size HS	Flange Thickness FT	B	C	D	Static Load F
AF14	179860	7.1 mm	1.5 – 6.0 mm	20 mm Min	65 mm	74 mm	440 N

VF SERIES C PURLIN CLIP

- Provides an attachment for nVent CADDY Speed Link assemblies, wire, S-hooks, or chain from purlin and bar joist
- Installs from floor with VAFT tool and conduit





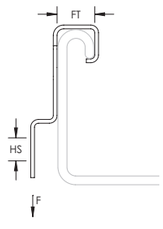


Material: Spring Steel
Finish: nVent CADDY Armour

Part Number	Article Number	Flange Thickness FT	A	B	C	Hole Size HS	Static Load F	Standard Packaging Quantity
VF14	179850	1.5 – 6.0 mm	20 mm Min	80 mm	90 mm	7.1 mm	700 N	100 pc

ESC STRUT ATTACHMENT CLIP

- Attaches to open side of a strut channel
- Designed to accept nVent CADDY Speed Link wire rope or hook







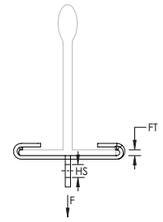
Material: Spring Steel
Finish: nVent CADDY Armour

Part Number	Article Number	Flange Thickness FT	Hole Size HS	Hole Type	Static Load F	Standard Packaging Quantity
ESC4	174560	10 mm	6.12 mm	Plain	180 N	100 pc

Related Products

4G16H TWIST CLIP WITH 90° PLAIN HOLE

- Provides an attachment for nVent CADDY Speed Link assemblies, wire, S-hooks, or chain from T-Grid
- Fast, easy and secure twist-on installation
- No tools required for installation







Material: Spring Steel

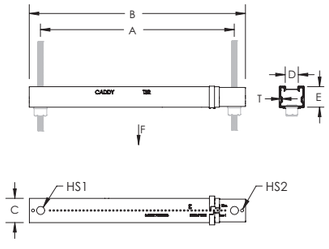
Part Number	Article Number	Hole Size HS	Flange Thickness FT	T-Grid Size	Static Load F	Standard Packaging Quantity
Finish: nVent CADDY Armour | Color: Gray						
4G16H	170230	6.4 mm	1.5 mm Max	24 mm	180 N	100 pc
Finish: Painted | Color: White						
4G16HWH	576950	6.4 mm	1.5 mm Max	24 mm	180 N	100 pc

TELESCOPING STRUT REPLACEMENT, NO NUT

- Can be attached directly to a wall for wall-mounted applications
- Telescopes to the desired length and is locked in place by snapping closed a spring retainer clip
- Standard strut profile runs the entire length of the part, allowing most standard fittings to be placed anywhere between the rods
- Integrated ruler displays space between hanger rods in inches and centimeters
- Supports up to seven 2" (50 DN) conduits, six 2" (50 DN) water filled pipes at 10' (3 m) spacing, or up to 18" (450 mm) cable tray
- Conduit can be supported on the top and bottom, eliminating the need for double sided strut
- Conduit and pipe can be placed directly on the strut profile, saving vertical space in buildings with limited room for installation







Material: Steel
Finish: Pregalvanized
Static Load F1: 1,330 N
Static Load F2: 880 N

Part Number	Article Number	Hole Size 1 HS1	Hole Size 2 HS2	Thickness T	A	B	C	D	E
TSR1220N	366593	13.7 mm	4.8 mm	1 mm	318 – 508 mm	356 – 546 mm	41 mm	22.2 mm	35 mm

Static Load F1 represents a distributed load for 12" – 20" (300 – 500 mm) installations and a point load for 12" – 16" (300 – 400 mm) installations.
Static Load F2 represents a point load for 16" – 20" (400 – 500 mm) installations.

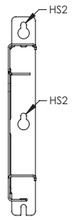
Related Products

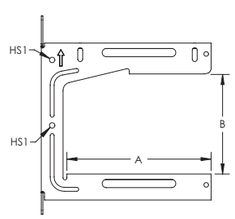
UNIVERSAL TRAY SUPPORT

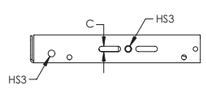
- Universal design to accommodate various cable tray hanging methods including ceiling, wall, threaded rod, or cable hanging systems
- C-shape maintains accessibility to cables after installation is completed
- Strut profile on both arms allow for two runs of cable trays per bracket
- Top tab can be bent allowing for extra wide cable trays to be installed when two brackets are fastened back-to-back
- Key holes provided for wall mount applications
- Works with the KBT Wire Basket Tray Clip for securing wire basket cable tray or J-bolts for securing cable ladder











Material: Steel
Finish: Electrogalvanized

E30 DIN 4102-12 E60 DIN 4102-12 E90 DIN 4102-12

Part Number	Article Number	A	B	C	Hole Size 1 HS1	Hole Size 2 HS2	Hole Size 3 HS3	Static Load F1	Static Load F2
UTS150	182031	165.1 mm	154.1 mm	8.3 mm	8.4 mm	8.4 mm	10.5 mm	440 N	890 N
UTS200	182032	223.9 mm	154.1 mm	8.3 mm	8.4 mm	9.0 mm	10.5 mm	440 N	890 N
UTS300	182033	323.2 mm	156.6 mm	8.3 mm	8.4 mm	8.4 mm	10.5 mm	440 N	890 N

Refer to Static Load F1 for installations with threaded rod.
Refer to Static Load F2 for wall mount and 3 mm nVent CADDY Speed Link installations.

NOTES



Testing Equipment

Electrical Meters **684**



OPTICAL & ACOUSTIC

31009 Tester PTL-1000

Non-contact voltage tester that is easy to handle and use. Adjustable voltage detection range. Automatically distinguishes neutral and phase wires. Distinct alarm sounds and different coloured LEDs to indicate high, medium and low voltage intensity. Suita-ble for a wide range of applications.

Code	Ref.	Box
635330	Tester PTL-1000	1

Technical information

- **Alarm mode:** Acoustic and light
- **Measuring range:** 12 V_{CA} - 1000 V_{CA} / 48 V_{CA} - 1000 V_{CA}
- **Power supply:** 2 x 1.5 V AAA batteries
- **Frequency:** 50 Hz / 60 Hz
- **Overload category:** CAT III 1000 V / CAT IV 600 V
- **Certificates:** CE, RoHS
- **Torch:** White light LED lamp
- **Colour:** Yellow
- **Dimensions:** 156 x 20 x 20 mm
- **Weight:** 45 g

Supplied with a cardboard box for transport and storage.
According with standards EN 61010-1, IEC 62321 and EN 61326-1.

VOLTAGE DETECTORS

Measuring instruments of low voltage



OPTICAL & ACOUSTIC

635 Tester BTL-600

Optical & Acoustic

Compact and convenient, highly accurate digital multimeter. Manual and automatic range adjustment. Pen type design that is easy to hold and use. Very safe, non-contact voltage detector function gives the user more confidence. Illuminated screen and torch allow use in all working environments, including in the dark. Diode test and continuity test functions.

Code	Ref.	Box
635300	Tester BTL-600	1

Technical information

- **PScreen:** 2000 digits
- **Measuring range:** Automatic and manual
- **Voltage range:** DC 200 mV / 2 V / 20 V / 200 V / 600 V
  AC 200 mV / 2 V / 20 V / 200 V / 600 V
- **Current range:** DC 20 mA / 200 mA
  AC 20 mA / 200 mA
- **Resistance range:** 200 Ω / 2 kΩ / 20 kΩ / 200 kΩ / 2 MΩ / 20 MΩ
- **Other functions:** Diode test and Continuity test.
  Data storage function
- **VCN mode:** Non-contact voltage detection
- **Category:** CAT III 600 V
- **Certificates:** CE, RoHS
- **Power supply:** 2 x 1.5 V AAA batteries
- **Colour:** Yellow
- **Dimensions:** 248 × 42 × 34 mm
- **Weight:** 110 g

Supplied with a nylon case for transport and storage.
According with standards EN61010-1, EN61010-2-033, EN61326
and IEC 62321.



OPTICAL & ACOUSTIC

31007 Tester BVD-1000

This tester including test of AC/DC voltage (including three-phase AC), phase sequence indication of three-phase AC, RCD test, continuity test, simple voltage detection without battery power supply, overvoltage indication and low voltage indication, etc. The attached flashlight provides convenience for using the tester in dark environments.

Code	Ref.	Box
635430	**Tester BVD-1000**	1

Technical information

- **Operating voltage:** ≤1000 VAC/CC
- **Screen:** LED
- **Frequency range:** 40Hz~1kHz
- **Voltage polarity indication:** automatic LED light indication.
- **Range selection:** automatic
- **RCD test:** voltage 230V (40-500Hz), current: 30mA~40mA, testing time<10s, reco very time: 60s.
- **Continuity test:** ≤100kΩ buzzer.
- **Phase sequence test:** three-phase AC voltage range: 57V~400V, frequency 50Hz~60Hz.
- **Power supply:** 1.5V x 2 AAA batteries
- **Battery undervoltage indication:** about less than 2.5V. Short circuit the L1 and L2 probes in the power-on state, and check the status of the "-" LED indicator. If the indicator is lit, it indicates undervoltage.
- **Working temperature:** -5°C~+40°F
- **Storage temperature:** -20°C~+60°F
- Working humidity: ≤85%RH
- **Overvoltage protection level:** CAT IV 600V, CAT III 1000V Pollution
- level: Level 2
- **Waterproof and dustproof level:** IP65
- **Automatic shutdown:** Shut down automatically for about 30 seconds.

Supplied with a nylon case for transport and storage.
According with standards IEC 61010-1, IEC 61243-3:2014, EN 60529, and EN 61326-1 for electronic testing instruments, and belongs to Class II pollution. The overvoltage standards are CAT IV 600V and CAT III 1000V.

VOLTAGE DETECTORS

Measuring instruments of low voltage



OPTICAL & ACOUSTIC

31007 Tester BVD-1500

The capability of this tester extends up to 1200 AC / 1500 DC, covering voltage tests in both alternating and direct current, including three-phase voltage in alternating current. Additionally, it provides phase sequence indication in three-phase alternating current systems, residual current device (RCD) tests, electrical continuity, voltage detection without the need for battery power, as well as overvoltage and undervoltage alerts, among other functions. The integrated flashlight provides convenient illumination for using the tester in dark environments.

Code	Ref.	Box
635440	**Tester BVD-1500**	1

Technical information

- **Operating voltage:** 1200 VAC/1500 VDC
- **Screen:** LCD
- **Frequency range:** 40Hz~1kHz, resolution 1Hz, error ± (3%+5d).
- **Buzzer:** Supports two modes(buzzer and mute).
- **Voltage polarity indication:** automatic
- **Range selection:** automatic
- **RCD test:** voltage 230V (40-500Hz); Current: 30mA~40mA, testing time<10s, recovery time: 60s;
- **Continuity test:** <10k Ω buzzer
- **Phase sequence test:** three-phase AC voltage range: 57V~400V, frequency 50Hz~60Hz.
- **Power supply:** 1.5V x 2 AAA battery
  Battery undervoltage indication: about less than 2.5V
- **Working temperature:** -5 °C~+40 °C
- **Storage temperature:** -20 °C ~+60 °C
- **Working humidity:** ≤ 85% RH
- **Overvoltage protection level:** CAT IV 600V, CAT III 1000V
- **Pollution level:** Level 2
- **Waterproof and dustproof level:** IP65
- **Automatic shutdown:** Shut down automatically for about 30 se conds in no testing status.

Supplied with a nylon case for transport and storage.
According with standards IEC 61010-1, IEC 61243-3:2014, EN 60529, and EN 61326-1 for electronic testing instruments, and belongs to Class II pollution. The overvoltage standards are CAT IV 600V and CAT III 1000V.



OPTICAL & ACOUSTIC

31009 Professional multimeter CTL-1000 with True RMS

Optical & Acoustic

Digital AC/DC, T-RMS clamp meter with automatic and manual ranges and a VFD frequency converter.
The CTL-1000 has a large 13 mm HD display with 6000 digits and a backlight for easy reading.
It has functions for measuring AC and DC voltage, AC and DC current, resistance, capacitance, temperature, low impedance voltage, continuity and NCV (non-contact voltage detection).

Code	Ref.	Box
635360	Multimeter CTL-1000	1

Technical information

- **Measurement of actual/real values**
- **Non-contact voltage detection (NCV)**
- **DC voltage:** 6 V / 60 V / 600 V / 1000 V
- **AC voltage:** 6 V / 60 V / 600 V / 1000 V
- **Alternating Current:** 60 A / 600 A / 1000 A
- **Direct Current:** 60 A / 600 A / 1000 A
- **Resistance:** 600 Ω / 6 KΩ / 60 KΩ / 600 KΩ / 6 MΩ / 60 MΩ
- **Capacitance:** 60 nF / 600 nF / 6 uF / 60 uF / 600 uF / 6 mF / 60 mF
- **Frequency:** 100 Hz / 1000 Hz / 10 KHz
- **Temperature measurements:** °C/°F -20 ~ 1000°C / -4 ~ 1832°F
- **Continuity Test**
- **LowZ DC:** 1000 V / AC1000 V
- **DCμA:** 200 μA / VFD
- **Clamp Ø:** 40 mm
- **LED lamp**
- **Memory Min / Max and peak values**
- **Low battery indicator**
- **Stores relative measurement data**
- **Backlight**
- **Weight:** 314.5 g
- **Size:** 246 × 85 × 40 mm
- **Power supply:** 3 × 1.5 V AAA batteries

Supplied with a nylon case for transport and storage.
According with standards EN61010-1, EN61010-2-033, EN61326, CAT III 1000 V / CAT IV 600 V





Accessories included.

VOLTAGE DETECTORS

Measuring instruments of low voltage



OPTICAL

31009 IPR-400 Phase/Rotation Indicator

It is used to verify the direction of the magnetic field in three-phase systems and the rotation of the motor. Without cables or probes, simply by placing it on the motor aligned with the transmission axis. Durable, lightweight, and reliable, it is ideal for electrical tasks with motors or three-phase systems, and comes with various probes to suit any application.

Code	Ref.	Box
635320	IPR-400 Phase/Rotation Indicator	1

Technical information

- **Operating voltage:** 120 V ~ 400 VAC
- **Current consumption:** ≤20 mA
- **Frequency range:** 2 Hz ~ 400 Hz
- **Non-contact rotating field indication function**
- **Operating temperature:** 0 °C a +40 °C
- **Operating altitude:** 2000 m
- **Category:** CAT III 600 V
- **Certificates:** CE, RoHS
- **Power supply:** 3 x 1.5 V AA batteries
- **Dimensions:** 128 × 70 × 30 mm
- **Weight:** 168 g

Supplied with a nylon case for transport and storage.
According with standards EN61010-1, EN61010-2-032, EN61326 and IEC 62321.







Accessories included.



OPTICAL

31009 Digital multimeter DM-600

Portable digital multimeter with backlit LCD display which allows values to be read even in dark locations.
The whole system is based on integrated circuits, equipped with overload protection.
Measures AC and DC voltage, AC and DC current, resistance, capacitance, frequency, diodes and perform continuity and NCV (non-contact voltage detection) tests.

Code	Ref.	Box
635380	Digital multimeter DM-600	1

Technical information

- **Automatic range**
- **Operating voltage:** 600 VDC/AC
- **Resistance ranges:** 20 MΩ
- **Diode test**
- **Capacitance:** 2mF
- **Current:** 10A
- **NCV function**
- **Frequency:** 20kHz
- **Display:** 3 1/2 LCD
- **Overload protection:** PTC protection circuit is used to measure resistance and frequency
- **Data storage**
- **Maximum measurement**
- **Out of range indicator:** OL
- **Low battery indicator:**
- **Auto power off:** 15 minutes. Press “HOLD/BL” to activate.
-
- **Operating conditions:** 0~40 °C (32~ 104 °F); <80% HR
- **Storage conditions:** -10~50 °C (14~122 °F); <70% HR
- **Power supply:** 1 No. 9 V battery (type 6F22, 1604A)
- **Safety requirements:** IEC61010-1 600 V CAT III
- **Dimensions:** 147:5x74x42.5 mm, approx.
- **Weight:** 174 g approx.

Supplied with a nylon case for transport and storage.
According with standards EN61010-1, EN61010-2-032, EN61326, IEC 62321.

VOLTAGE DETECTORS

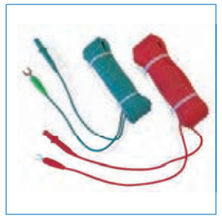
Measuring instruments of low voltage

DIGITAL

31009 Ground Resistance tester IER-4000

The high-performance IER-4000 ground tester is a professional device that tests the grounding resistance using the 2-pole and 3-pole methods. It also allows the grounding voltage to be pre-tested, protecting the user from dangerous voltages.
Designed and manufactured in compliance with the safety requirements set forth in IEC61010-1 standards for electronic testing instruments.







Accessories included.

Code	Ref.	Box
635340	Ground resistance tester IER-4000	1





Accessories included.

Technical information

- **Screen:** Digital LCD
- **Data storage:** 100 groups
- **Resistance ranges:** 0 Ω ~ 29.99 Ω / 30 Ω ~ 99.9 Ω / 100 Ω ~ 999 Ω / 1 kΩ ~ 4 kΩ
- **Voltage ranges:** 0 V ~ 200 V (50/60 HZ)
- **Continuity check**
- **Values:** MAX/MIN/PRO, relative measurements
- **Results recorded in memory**
- **Auto power off, display backlight and low battery indicator**
- **Category:** CAT III 600 V
- **Certificates:** CE, RoHS
- **Power supply:** 6 x 1.5 V AA batteries
- **Dimensions:** 180 x 140 x 65 mm
- **Weight:** 950 g

Supplied with a case for transport and storage.
According with standards EN61010-1, EN61010-2-032, EN61326 and IEC 62321.

DIGITAL

31009 Digital insulation tester CIT-10

Used to measure the quality of the electrical insulation of cables, motors, transformers, etc. in new installations and during both basic and specialist maintenance.
It also detects DC voltage, AC voltage and performs continuity checks.
Designed and manufactured to comply with the safety requirements of IEC61010-1 for electronic test instruments.
Designed and manufactured in compliance with the safety requirements set forth in IEC61010-1 standards for electronic testing instruments.





Accessories included.

Code	Ref.	Box
635390	Digital insulation tester CIT-10	1



Accessories included.

Technical information

- **Display:** LCD with backlight
- **Resistance Range:** 0.01 MΩ – 10.00 GΩ
- **Insulation Tests:** 50 V, 100 V, 250 V, 500 V and 1000 V
- **Automatic power off to save energy**
- **Data storage**
- **Timer function for insulation test**
- **Lock function for insulation test**
- **Power supply:** 6 x 1.5 V AA batteries
- **Dimensions:** 190 × 145 × 70 mm
- **Weight:** 855 g (without batteries)

Supplied with a case for transport and storage.
According with standards EN61010-1, EN61557-1, EN61326-1 CAT. III 1000V CAT. IV 600V

VOLTAGE DETECTORS

Measuring instruments of low voltage



OPTICAL & ACOUSTIC

31009 Clamp earth resistance tester CRT-1200

The clamp can test grounding in hard-to-reach spaces, including indoor or fully paved areas where auxiliary test rods cannot be used. The meter can identify the resistance with no need to disconnect and reconnect the grounding installation.
Ideal for use in the field of electrical power distribution, telecommunications, construction and industrial electronic equipment.

Code	Ref.	Box
635370	Clamp CRT-1200	1

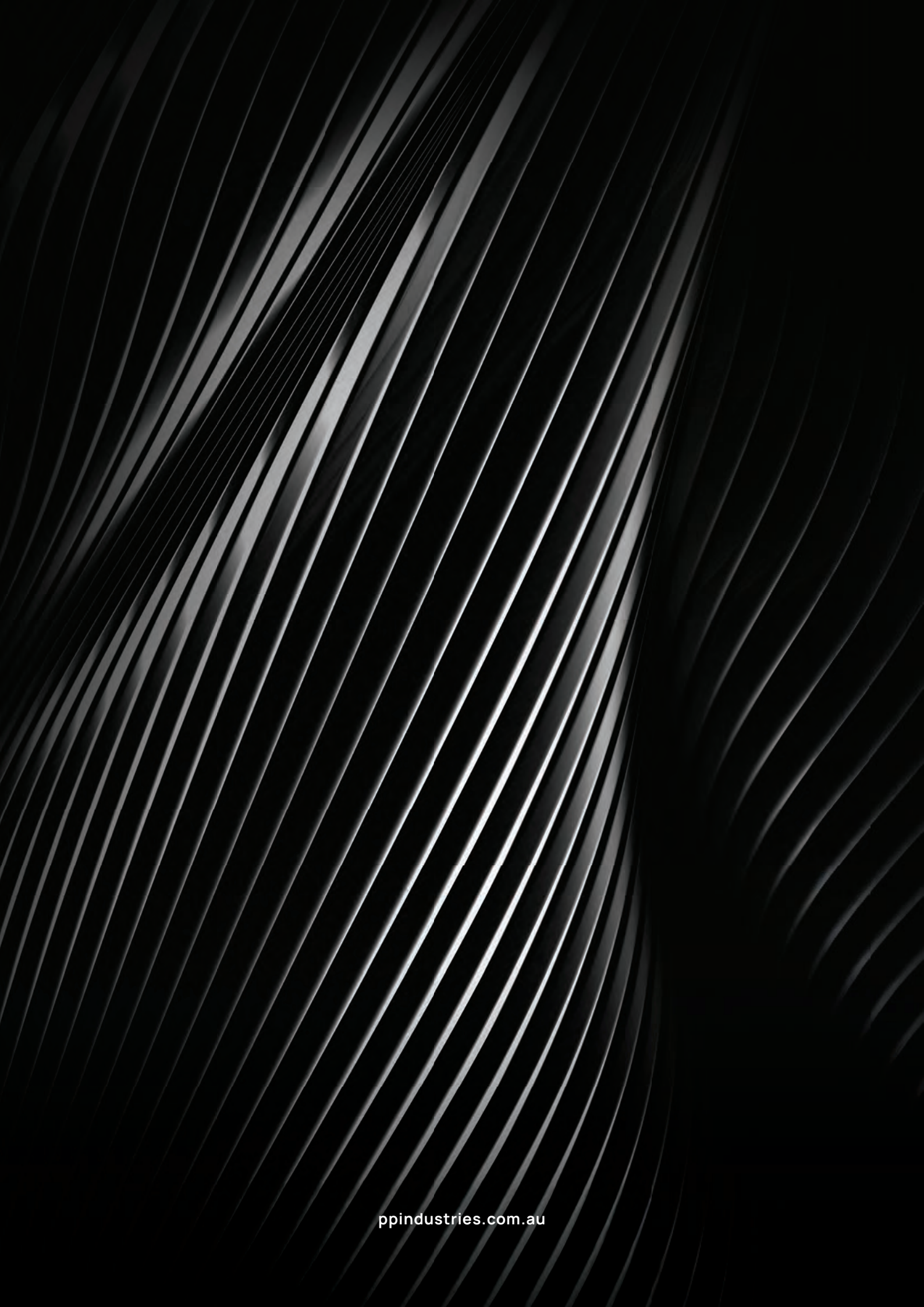
Technical information

- **Resistance ranges:** 1200 MΩ
- **Test voltage:** 3700 V
- **Current:** 40 A
- **Electric clearance:** 6.5 mm (meet IEC1010 double insulation CAT III 600 V)
- **Limiting overload:** 40 A RMS current
- **Mean consumption:** 50 mA
- **Range:** automatic
- **Display type:** 4 digits, 9999 counting, liquid crystal display
- **Power shortage:** display symbol
- **Power supply:** 9 V 6F22
- **Single measurement time:** 1s
- **Working temperature:** -10°C to 50°C (14°F to 122°F)
- **Storage temperature:** -20°C to 60°C (-4°F to 140°F)
- **Conductor size:** Ø 32mm
- **Dimensions:** 54 x 104 x 32 mm
- **Weight:** approximate 1050 g (include the batteries)

Supplied with a nylon case for transport and storage.
According with standards EN61010-1, EN61010-2-033, EN61326, CAT III 600 V

NOTES

NOTES



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