BBC CELLPACK

Electrical Products

PRODUCT CATALOGUE

Cable connecting systems
and Accessories
Low and Medium Voltage



We connect your energy

www.cellpack.com

D961 | SAP-No. 346892 | 0126

Information

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COMPANY PROFILE



Electrical Products

Being an SME company within the Behr Bircher Cellpack (BBC) Group in Villmergen/Switzerland, BBC Cellpack Electrical Products has successfully established itself in the global markets, in the fields of development, production and customer oriented sales of cable connecting systems and accessories for the low and medium voltage up to 42 kV.



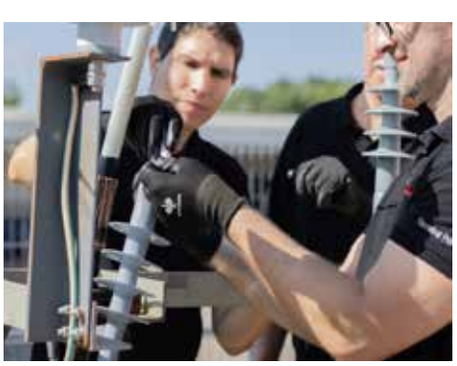
We connect your energy

Power utilities, electrical wholesalers, specialist electrical trade or the industry – they all share one thing in common: regarding a high operational safety for the power supply services in the distribution network as their first priority. The system solutions and products developed by BBC Cellpack for complex, high-tech applications have significantly contributed to this.



Technology & Innovation

With our customer-oriented understand-ing of technologies and the distinctive culture of innovation, we have committed ourselves to concentrate, not only on the demands of our customers for technically innovative and thoroughly tested products, but also to ensure the safe and reliable functioning of our system solutions.



Quality & Service

BBC Cellpack has gained worldwide recognition for highest material and product quality with standards being continuously controlled in our high-performance laboratories and testing facilities in Germany. This high benchmark also applies to the availability and delivery service of our products. The quality standard “Swiss Quality – Made in Germany“ is our commitment.

TECHNOLOGY AND PRODUCT PORTFOLIO

HEAT SHRINK TECHNOLOGY



Cable accessories with heat shrink components made of extruded plastic material (thermoplaste) offer a wide field of applications for all kind of cables, as well as conductor and cross section range in the low and medium voltage. They protect the cable connection against water and moisture penetration and thus against metal corrosion and guarantee for excellent electrical insulation values as well as mechanical protection. The hybrid joints and terminations, designed by BBC Cellpack especially for the medium voltage, combine components of silicone rubber and heat shrink products for safe and reliable operations.

The heat shrink product range includes straight-through, transition and pot end joints, terminations, wall ducts, repair sleeves and repair kits etc., heat shrink moulded parts as well as heat shrink tubes in various designs and types.

CAST RESIN TECHNOLOGY



BBC Cellpack cast resin joints offer an overall long-term protection in terms of insulation values and resistance for all kind of cable accessories and cross sections. This is guaranteed by high-grade, unfilled two-component PUR cast resins which are designed for various applications as well as by the shockproof plastic moulds available with or without integrated strain relief. After the hardening process, the cable joints are resistant to mechanical and electrical loads.

The scope of delivery for all cast resins straight-through and branch joints or universal connection and branch boxes of BBC Cellpack includes a cast resin tailored to the pre-selected field of application. The cast resins are further available individually in two-chamber bags with separation bars, if requested. The mixing of the cast resin component and the hardener is effected directly before the filling into the mould which is designed with at least one filling opening.

TECHNOLOGY AND PRODUCT PORTFOLIO

GEL TECHNOLOGY



Our EASY-PROTECT gel-filled housings for easy, fast and safe moisture protection of WAGO COMPACT Splicing Connectors. This combination integrates the market leader's expertise in electrical interconnections with reliable gels from BBC Cellpack to deliver a unique system. The EASYCELL® gel joints offer easy, quick and therefore practical solutions for connecting and branching low voltage cables up to 1 kV. The impact-resistant polypropylene plastic shells are made of flame-retardant material and also allow the EASYCELL® gel joints to be used in demanding environments.
Label-free, silicone-based gel sealing compound for protecting electrical and electronic components in the low voltage range up to 1 kV are available in extremely user-friendly versions. They are transparent or translucent, largely individually portioned, easily removable, halogen-free, UV-resistant and flexible.

PLUG-IN & CONTRAX TECHNOLOGY



The compact, pluggable straight-through joint Compax with its particularly high level of pre-configuration, together with the innovative, pluggable connections Cellplux for outer-cone-systems, have been developed specifically for polymeric-insulated 1-core medium voltage cables. The integrated components system and robust construction also allow a fast and safe realization of cross-section range taking joint- or connector solutions.
The Contrax medium voltage terminations and straight-through joints provide the integration of the relevant core components within a one-piece insulator made of silicone rubber resistant to high voltage. These expand and are easily installed by means of the patented slip-on accessory with the assembly only.

All the BBC Cellpack technologies guarantee for highest assembly and operational safety – not least by thorough quality controls and testing.

TECHNOLOGY AND PRODUCT PORTFOLIO

CONNECTING TECHNOLOGY



BBC Cellpack screw connectors and screw cable lugs are suitable for cross-section ranges, reliable termination and joints of both, copper and aluminium cables. Furthermore, the innovative shear-off head bolts are designed for the use of just one conventional tool. The integrated centering and further technical optimizations allow to eliminate common assembly errors already before the installation.

Compression connectors, compression cable lugs, branch clamps and wire connectors in various types round up the connector portfolio tailored to the BBC Cellpack cable sets for a safe and permanent connection of copper or aluminium cables.

ELECTRICAL INSULATION & MOUNTING TAPES



Insulating, bundling, labeling, protecting, affixing, mounting, padding, sealing or repairing: Electrical insulation and mounting tapes for low and medium voltage have to meet most different requirements. Therefore, BBC Cellpack has aligned the individual functional profiles of its tapes to the various applications in an optimal way.

The high-quality Premio PVC electrical insulation tapes, available in all standard colors, are particularly flexible, stabilized against UV rays and packed separately in practical plastic boxes. Furthermore, the Premio family provides PVC and PSE tapes for bundling and affixing, heat-resistant glas fibre cloth tapes as well as copper foil for discharge and screening.

Standard PVC insulation tapes, self-amalgamating tapes, cloth and sealing tapes as well as hot melt adhesives round up the assortment.

TECHNOLOGY AND PRODUCT PORTFOLIO

ACCESSORIES AND SPECIFIC PRODUCTS



Whether you need useful tools for connecting and branching of low and medium voltage cables, products for bundling, marking or feeding of cables and wires, or for insulation, sealing and cleaning – BBC Cellpack provides a field-tested range of accessories for various uses and applications.

The product portfolio ranges from heating systems to cable ties and markers and fastening elements, tools such as heat shrink torch kits, clamp tools and striping tools, up to special products such as cleaners (as cloth or spray), anti-corrosion and insulation sprays, cable lubricants, putty/sealing compounds, cable centering aids and screen connecting kits for telecommunication cables.

LOW VOLTAGE

Heat shrink technology 11

Cast resin technology 71

Gel technology 113

LOW VOLTAGE

Heat shrink technology

 Straight-through joints 12

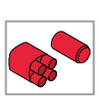
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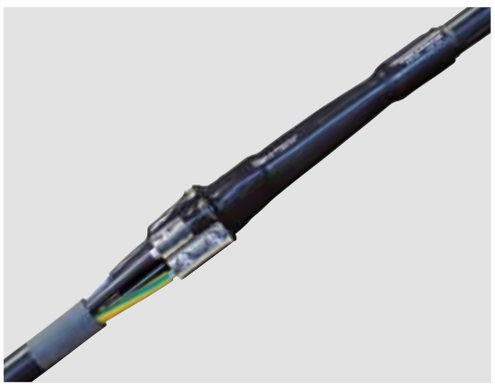
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SMHSV
Heat shrinkable straight-through joint

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.



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

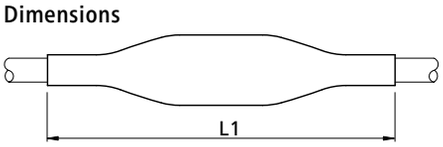
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

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

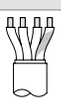
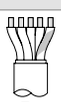
Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Storage conditions/Shelf life
- Unlimited shelf life

Dimensions



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

			Polymeric cable unarmoured		
			 4x	 5x	
Type		**L1 mm**	**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

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.



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

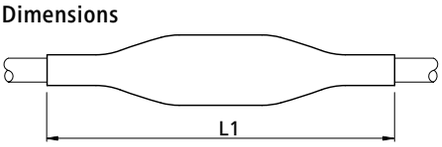
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

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

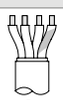
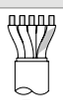
Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Storage conditions/Shelf life
- Unlimited shelf life

Dimensions



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

			Polymeric cable unarmoured		
			 4x	 5x	
Type		**L1 mm**	**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

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

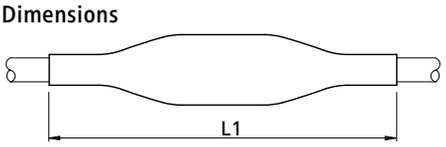
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

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)

			Polymeric cable unarmoured			
			1x	4x	5x	
Type		**L1 mm**	**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

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

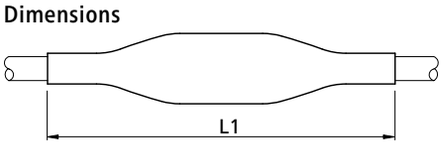
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

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

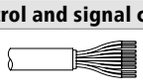
Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Storage conditions/Shelf life
- Unlimited shelf life

Dimensions



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

			Control and signal cable		
					
Type		**L1 mm**	**Number of conductors**	**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

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

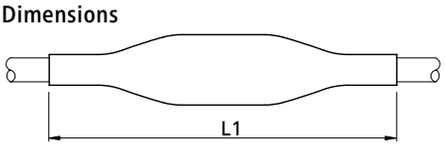
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

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

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

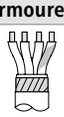
Storage conditions/Shelf life
- Unlimited shelf life

Dimensions



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

Optional accessory: Compression connectors (see Connecting technology)

			Polymeric cable armoured  4x	
Type		L1 mm	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

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

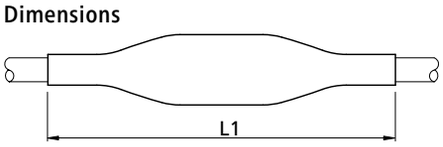
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

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

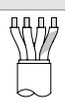
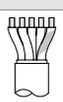
Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Storage conditions/Shelf life
- Unlimited shelf life

Dimensions



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

			Polymeric conductor unarmoured		
			 4x	 5x	
Type		**L1 mm**	**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

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

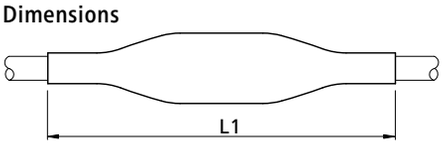
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

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)

			Polymeric cable with concentric conductor			
			1x	3x	4x	
Type		**L1 mm**	**Nominal cross section per conductor mm²**			**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

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

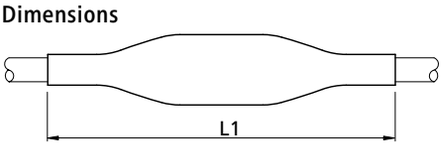
Application/Suitability
- Indoor
- Outdoor
- Underground
- Installation ducts
- Ductwork

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

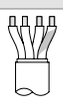
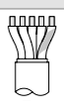
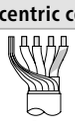
Storage conditions/Shelf life
- Unlimited shelf life

Dimensions



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

Optional accessory: Compression connectors (see Connecting technology)

			Polymeric cable			
			unarmoured		with concentric conductor	
			 4x	 5x	 4x	
Type		**L1 mm**	**Nominal cross section per conductor mm²**			**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

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.

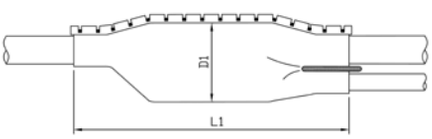


Characteristics
- Compact dimensions
- Suitable for cut and uncut cables
- Removable (for repairs or switch-over)
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- Waterproof and moisture-resistant

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

Storage conditions/Shelf life
- Unlimited shelf life

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)

					Telecommunication cable						
					spliced with wire connector			spliced with conductor connecting blocks			
					0.4 mm	0.6 mm	0.8 mm	0.4 mm	0.6 mm	0.8 mm	
Type		**L1 mm**	**D1 Ø over protective liner mm**	**Cable-Ø mm**	**max. Number of wire pairs**						**Art.-No.**
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

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.

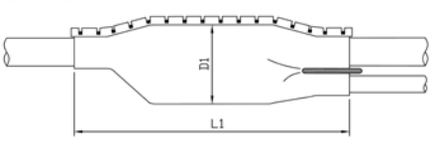


Characteristics
- Compact dimensions
- With temperature colour indicator
- Suitable for cut and uncut cables
- Removable (for repairs or switch-over)
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free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

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

Storage conditions/Shelf life
- Unlimited shelf life

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)

					Telecommunication cable						
					spliced with wire connector			spliced with conductor connecting blocks			
					0.4 mm	0.6 mm	0.8 mm	0.4 mm	0.6 mm	0.8 mm	
Type		**L1 mm**	**D1 Ø over protective liner mm**	**Cable-Ø mm**	**max. Number of wire pairs**						**Art.-No.**
VASMI	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

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

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)

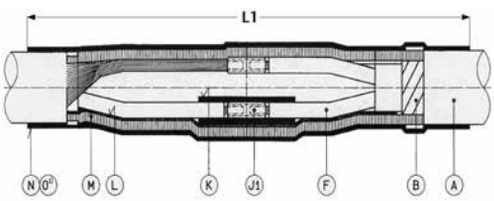
Storage conditions/Shelf life
- Unlimited shelf life

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

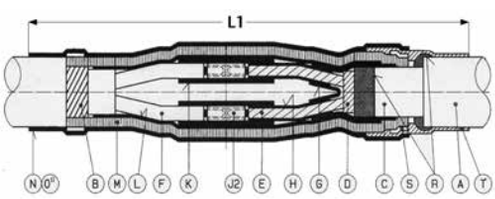
Optional accessory: Compression connectors (see Connecting technology)
Accessory kit ZS-PPb (required for PPb cables)

Particularly for the Swiss market

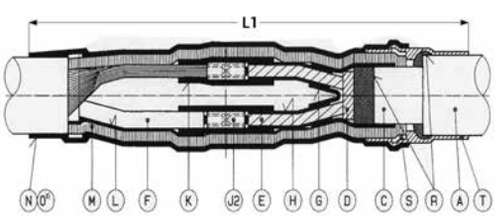
Dimensions



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

→ Continued on the next page

→ Continuation

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

Particularly for the Swiss market

			Polymeric cable unarmoured / armoured	Mass-impregnated paper cable (with accessory kit ZS-PPb)	
			 4x	 4x	
Type		**L1 mm**	**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

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

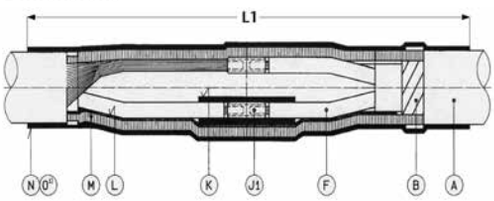
Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Storage conditions/Shelf life
- Unlimited shelf life

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

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

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

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 shrinkable 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

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.



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

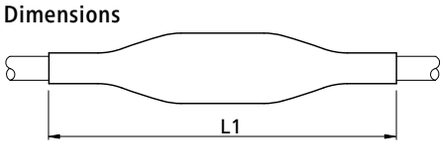
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

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



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

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.



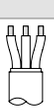
Characteristics
- With hot melt adhesive
- Resistant to chemical agents
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- High flexibility
- High tensile strength
- Resistant to cold flow (thermally stable)
- Self-extinguishing

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

Storage conditions/Shelf life
- Unlimited shelf life

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.

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

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.



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

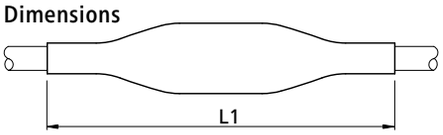
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

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

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

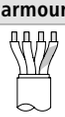
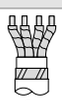
Storage conditions/Shelf life
- Unlimited shelf life

Dimensions



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

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

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

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

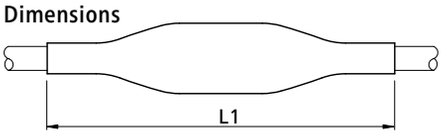
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

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

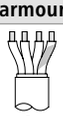
Test standards
- DIN EN 50393 (corresponds to VDE 0278)

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

			Polymeric cable	Mass-impregnated paper cable		
			unarmoured	NAKLEY	N(A)KBA	
			 4x	 3x	 4x	
Type		**L1 mm**	**Nominal cross section per conductor mm²**			**Art.-No.**
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

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.



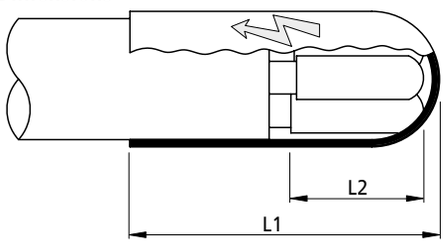
Characteristics
- Wide conductor and cross-section range
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Free from paint-wetting inhibiting substances
- Halogen-free
- Transversely waterproof
- High electrical insulating values
- High mechanical strength

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

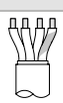
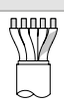
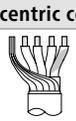
Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

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

Storage conditions/Shelf life
- Unlimited shelf life

Dimensions


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

				Polymeric cable			
				unarmoured		with concentric conductor	
				 4x	 5x	 4x	
Type		**L1 mm**	**L2 mm**	**Nominal cross section per conductor mm²**			**Art.-No.**
	6-35	100	47	6 - 35		6/6 - 35/35	145388
SEMH4-K	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

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).



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

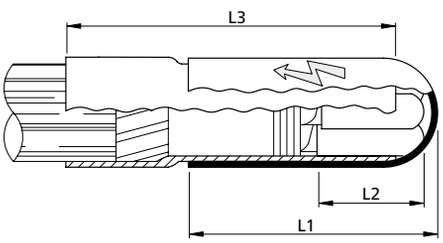
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

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

					Mass-impregnated paper cable	
					 4x	
Type		**L1 mm**	**L2 mm**	**L3 mm**	**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**

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.



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

Application/Suitability
- Outdoor

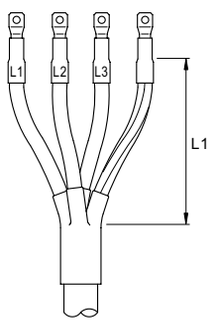
Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

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

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

Storage conditions/Shelf life
- Unlimited shelf life

Dimensions



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.

			Polymeric cable unarmoured  4x	
Type		**L1 mm**	**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

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

Application/Suitability
- Indoor

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

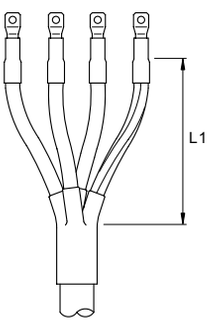
Test standards
- DIN EN 50393 (corresponds to VDE 0278)

Storage conditions/Shelf life
- Unlimited shelf life

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

Optional accessory: Compression cable lugs (see Connecting technology)

Dimensions

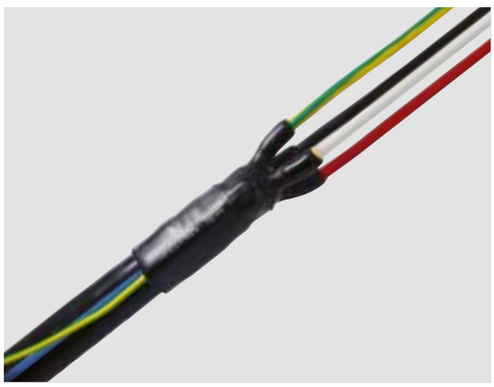


L1 = user-defined

		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

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

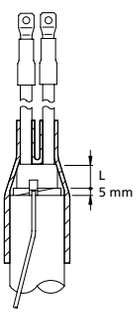
Application/Suitability
- Indoor

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

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

Storage conditions/Shelf life
- Unlimited shelf life

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

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

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

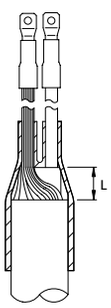
Application/Suitability
- Indoor

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

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

Storage conditions/Shelf life
- Unlimited shelf life

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

Type		L mm	Polymeric cable with concentric conductor 3x 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

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

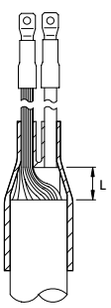
Application/Suitability
- Indoor

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

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

Storage conditions/Shelf life
- Unlimited shelf life

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

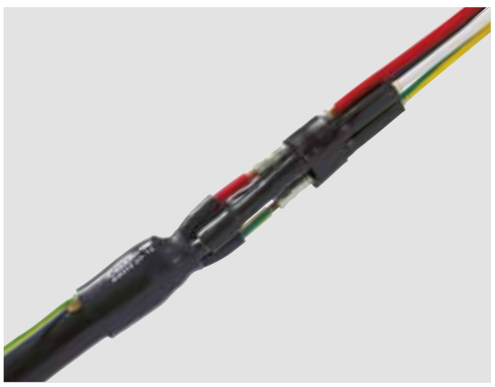
Type		L mm	Polymeric cable with concentric conductor 3x Nominal cross section per conductor mm²	Art.-No.
SEH4	10-35 S-C	20	10/10 - 35/35	126855
	95-150 S-C	20	95/50 - 150/70	126847

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

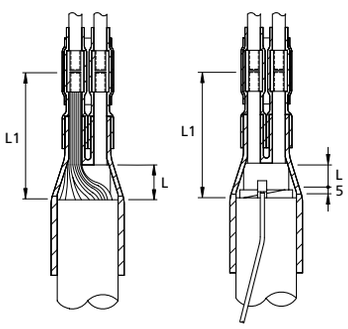
Application/Suitability
- Indoor
- Outdoor
- For double compression connectors with separators complying with DIN 46267

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

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

Storage conditions/Shelf life
- Unlimited shelf life

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

				Polymeric cable		
				with concentric conductor	armoured	
				 3x	 4x	
Type		**L mm**	**L1 mm**	**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

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)

Application/Suitability
- Phase marking

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

Storage conditions/Shelf life
- Unlimited shelf life



Colours

Black

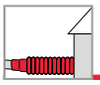
Scope of delivery

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		Recovered wall thickness mm	Art.-No.
			before shrinking	after shrinking		
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



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

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.

Storage conditions/Shelf life
- Unlimited shelf life

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 breakthrough 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



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

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)

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

Storage conditions/Shelf life
- Unlimited shelf life



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 before shrinking	Inner-Ø mm before shrinking	Inner-Ø mm after shrinking	Recovered wall thickness mm	Art.-No.
Spool | 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 | 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



→ 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

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)

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

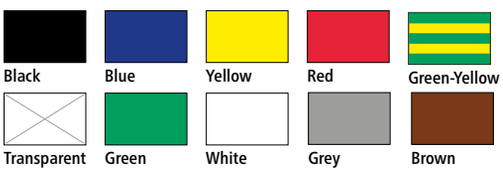
Material
- Cross-linked polyolefin
- Free of lead and cadmium

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

Storage conditions/Shelf life
- Unlimited shelf life



Colours



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.

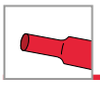
Type		L m	Inner-Ø inch before shrinking	Inner-Ø mm before shrinking	Inner-Ø mm after shrinking	Recovered wall thickness mm	Art.-No.
Spool | Colour: Black							
SR1F	1.6-0.8	300	1/16	1,6	0,8	0,43	126954
	2.4-1.2	300	3/32	2,4	1,2	0,51	126960
	3.2-1.6	300	1/8	3,2	1,6	0,51	126961
	4.8-2.4	300	3/16	4,8	2,4	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 | 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 | 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

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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 | 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 | 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 | 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 | 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 | 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 | 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
	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

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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 | Colour: White							
SR1F	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 | 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 | 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 | 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

SR1F3
Heat shrinkable thin wall tube

self-extinguishing, shrink ratio 3 : 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)

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

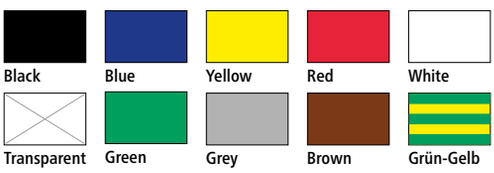
Material
- Cross-linked polyolefin
- Free of lead and cadmium

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

Storage conditions/Shelf life
- Unlimited shelf life



Colours

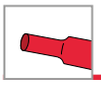


Scope of delivery
Thin wall heat shrinkable tube, on spool or in lengths

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 | 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 | 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 | 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 | 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		Recovered wall thickness mm	Art.-No.
			before shrinking	after shrinking		
Lengths | 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 | 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 | 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 | 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 | 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 | 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 | 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



→ 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

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 properties and technical data

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

Storage conditions/Shelf life
- Unlimited shelf life



Colours

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

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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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

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 properties and technical data

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

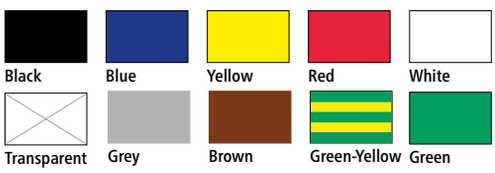
Material
- Cross-linked polyolefin
- Free of lead and cadmium

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

Storage conditions/Shelf life
- Unlimited shelf life



Colours



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 before shrinking	Inner-Ø mm after shrinking	Recovered wall thickness mm	Art.-No.
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
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

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Type		L m	Inner-Ø mm before shrinking	Inner-Ø mm after shrinking	Recovered wall thickness mm	Art.-No.
(Continuation) Colour: White						
SB	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

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

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

Storage conditions/Shelf life
- Unlimited shelf life



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**

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 shrinkable 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

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

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

Storage conditions/Shelf life
- Unlimited shelf life



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 | 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 | 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 | 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 | 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

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→ 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

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)

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**

Storage conditions/Shelf life
- Unlimited shelf life



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 | 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 | 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 | 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
with adhesive						
Lengths | 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

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→ 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

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

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**

Storage conditions/Shelf life
- Unlimited shelf life



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 | 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 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

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)

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**

Storage conditions/Shelf life
- Unlimited shelf life



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 | 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 | 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

→ 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

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

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**

Storage conditions/Shelf life
- Unlimited shelf life



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.
Lengths | 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

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)

Application/Suitability
- Telecommunications terminal block system

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

Test standards
- Corresponds to **IEC 60684-2**

Storage conditions/Shelf life
- Unlimited shelf life



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		Recovered wall thickness mm	Art.-No.
			before shrinking	after shrinking		
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 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	 350 % 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

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

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

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

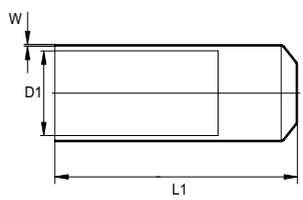
Material
- Cross-linked polyolefin

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

Storage conditions/Shelf life
- Unlimited shelf life



Colours
Black

Dimensions


Scope of delivery
Heat shrinkable end cap

Type		L1 mm	L1* mm	Inner-Ø D1 mm		W* Recovered wall thickness mm	Art.-No.
				before shrinking	after shrinking		
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 Tensile strength at break	 min. 200 % 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.



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

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

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

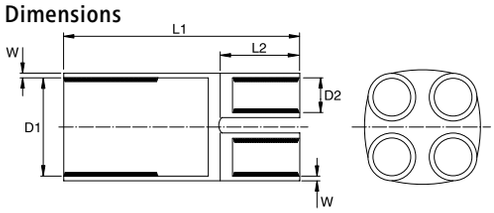
Material
- Cross-linked polyolefin

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

Storage conditions/Shelf life
- Unlimited shelf life

Colours
Black

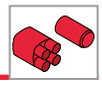
Scope of delivery
Heat shrinkable spreader cap

Dimensions


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



→ 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 Tensile strength at break	 min. 200 % 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

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)

Application/Suitability
- Sealing
- Repair of damaged cable sheaths

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

Test standards
- Corresponds to **IEC 60684-2**

Storage conditions/Shelf life
- Unlimited shelf life



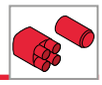
Colours

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

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→ Continuation

SRMAHV Heat shrinkable repair sleeve

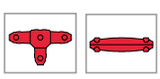
Technical data	Value	Test standard
Physical properties		
Hardness	50 Shore D	IEC 60684-2
Elongation at break	300 %	IEC 60684-2
Tensile strength at break	13 MPa	IEC 60684-2
Longitudinal shrinkage	≤ 10 %	IEC 60684-2
Shrink ratio	> 3:1	IEC 60684-2
Thermal properties		
Operating temperature range	-40 °C 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

LOW VOLTAGE

Cast resin technology

 Straight-through joints 73

 Branch joints 81

 Straight-through and branch joints 98

 Universal connection and branch boxes 100

 Cast resins 102

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

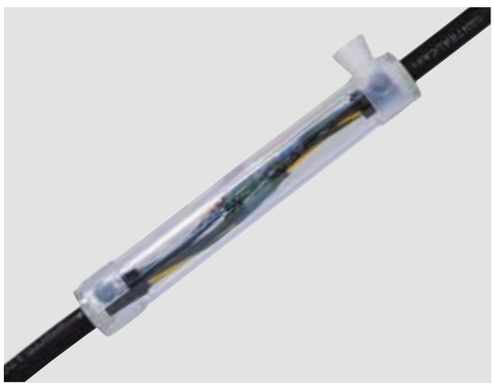
Products	Version		Type of cast resins				
	with screw connector(s)	with branch clamp(s)	EG	GG	CG	FG	UWR
Straight-through joints							
MR 0	–	–	●	–	–	–	–
M…EG	–	–	●	–	–	–	–
M…GG	–	–	–	●	–	–	–
M-Euroline	–	–	●	–	–	–	–
M…V-Euroline	●	–	●	–	–	–	–
MZ	–	–	●	–	–	–	–
MZ…FG	–	–	–	–	–	●	–
PV…EG, PVM…EG, PVS…EG	–	–	●	–	–	–	–
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

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

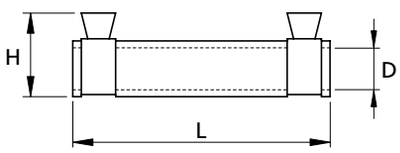
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Submersible pumps
- Installation ducts

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

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

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

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, 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)

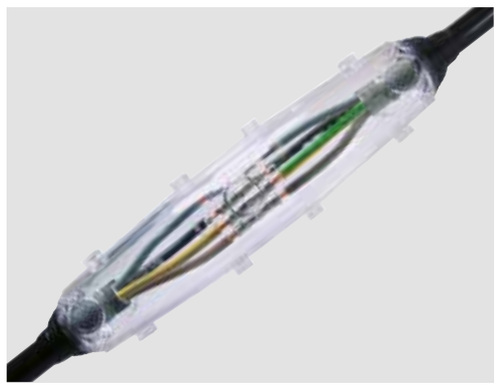
Type		L mm	D mm	H mm	max. Cable-Ø mm	Polymeric cable unarmoured 1x	2x	3x	4x	5x	Art.-No.
						Nominal cross section per conductor mm²					
MR	02	120	26	40	16	25	6	4	2.5	1.5	124507
	05	180	26	40	16	25	6	4	4	2.5	124508

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

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

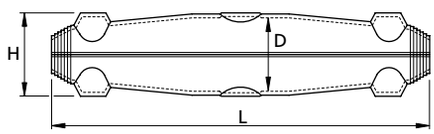
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

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

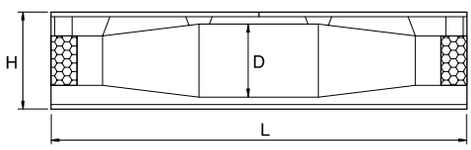
Test standards
- DIN EN 50393 (corresponds to VDE 0278)

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

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.

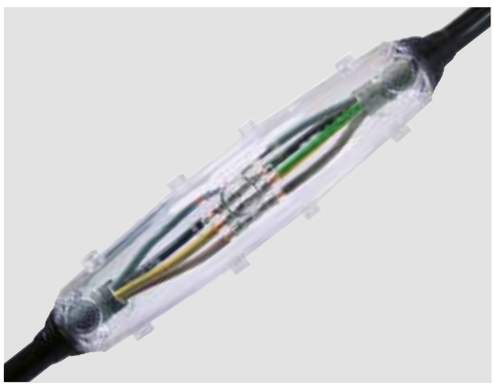
Type		L mm	D mm	H mm	max. Cable-Ø mm	Polymeric cable: unarmoured 1x	unarmoured 2x	unarmoured 3x	unarmoured 4x	unarmoured 5x	with concentric conductor 3x	with concentric conductor 4x	armoured 3x	armoured 4x	Art.-No.
						max. Nominal cross section per conductor mm²									
M	0 EG	185	32	37	15	25	10	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

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	0,75 mm²: Number of conductors	1,5 mm²: 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.

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

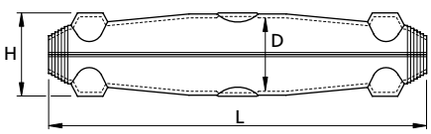
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

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

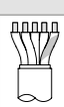
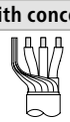
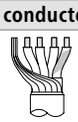
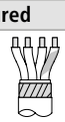
Dimensions

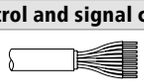


M 0 GG - M 6 GG

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.

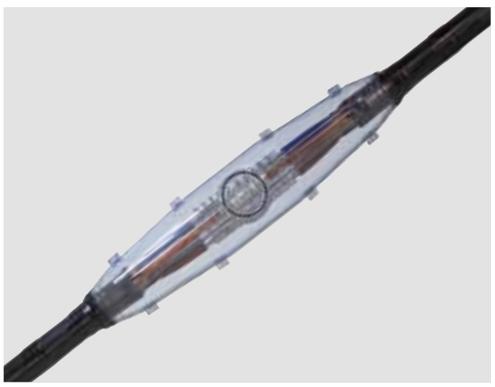
						Polymeric cable									
						unarmoured					with concentric conductor		armoured		
						 1x	 2x	 3x	 4x	 5x	 3x	 4x	 3x	 4x	
Type		**L mm**	**D mm**	**H mm**	**max. Cable-Ø mm**	**max. Nominal cross section per conductor mm²**									**Art.-No.**
M	**0 GG**	185	32	37	15	25	10	6	6	4					353703
	1 GG	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.

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

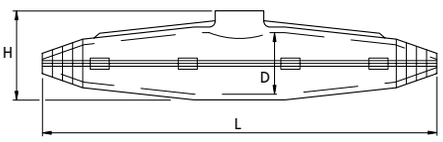
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

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

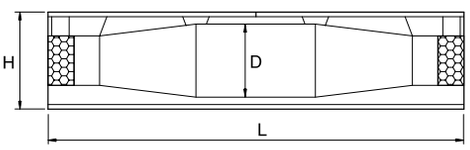
Test standards
- DIN EN 50393 (corresponds to VDE 0278)

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

Dimensions



M 11 - M 16



M 17

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

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

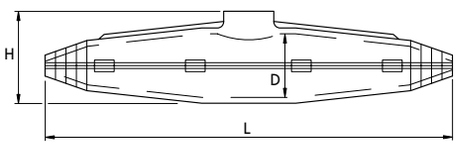
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

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

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

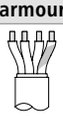
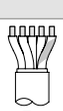
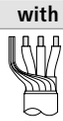
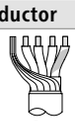
Storage conditions/Shelf life
- Cast resin up to 40 months

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					
						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**					**Art.-No.**
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

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

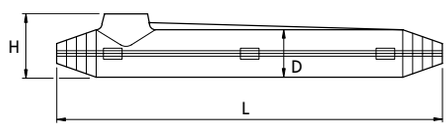
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

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

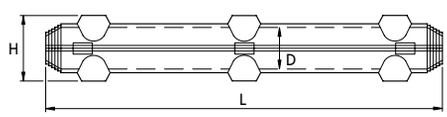
Test standards
- DIN EN 50393 (corresponds to VDE 0278)

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

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)

						Control and signal cable					
						0.4 mm	0.6 mm	0.8 mm	1.5 mm²	2.5 mm²	
Type		L mm	D mm	H mm	max. Cable-Ø mm	Number of wire pairs			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.

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

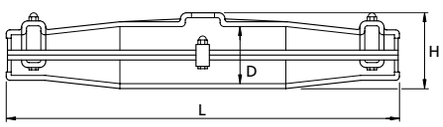
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

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 40 months

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	Polymeric cable: unarmoured 4x — Nominal cross section per conductor mm²	Polymeric cable: with concentric conductor 3x — Nominal cross section per conductor mm²	Polymeric cable: 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

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

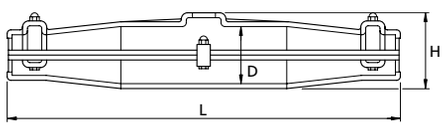
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

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

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

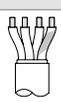
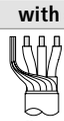
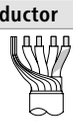
Storage conditions/Shelf life
- Cast resin up to 24 months

Dimensions



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)

						Polymeric cable				
						unarmoured		with concentric conductor		
						 3x	 4x	 3x	 4x	
Type		**L mm**	**D mm**	**H mm**	**max. Cable-Ø mm**	**Nominal cross section per conductor mm²**				**Art.-No.**
PVS	5 GG	642	136	160	48	95 - 150	95 - 150	150/150	120/120	335567

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

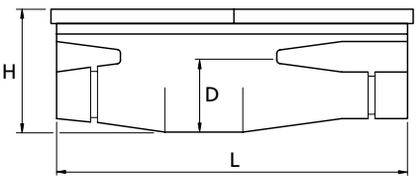
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

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 40 months

Dimensions

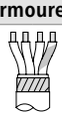


KAV 1 - KAV 2

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)

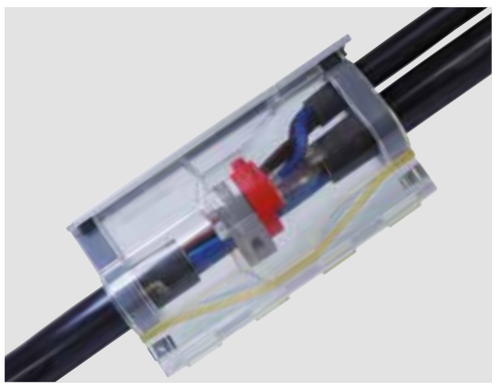
Note: Additional earthing set available on request.

							Polymeric cable				
							unarmoured		armoured		
							 4x		 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	Branch cable	Main cable	Branch cable	
KAV	1	230	58	78	30	20	16	6			131095
	2	270	58	78	33	20	25	10	6	4	124861

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

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 40 months

Scope of delivery

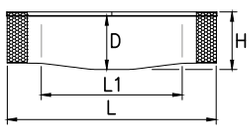
Hydrolysis resistance PUR type EG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, sealing gaskets, transparent plastic shell, centring elements (H 5-35 and H 7), steel clamps (H 5 and H 6), protective gloves, assembly instructions

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)

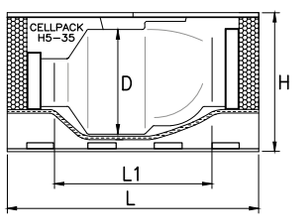
Note: H5 branch joints can be used with branch clamps HE 1/70/150 (see Connecting technology).

Dimensions

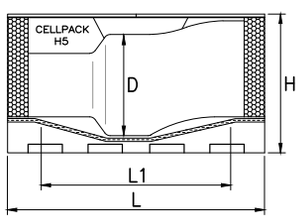
H 1, H 2



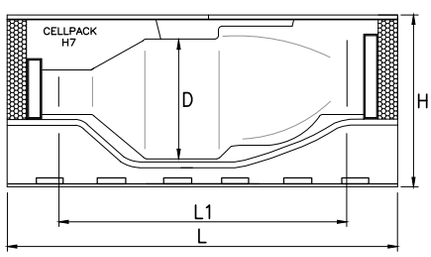
H 5-35

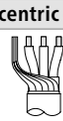


H 5, H 6



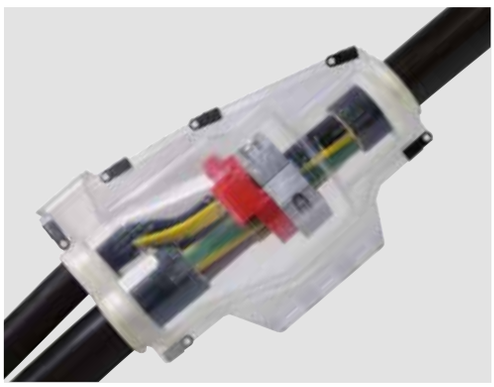
H 7



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	
						Polymeric cable						
						unarmoured				with concentric conductor		
												
						4x				3x		
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

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

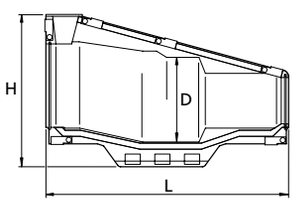
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

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



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

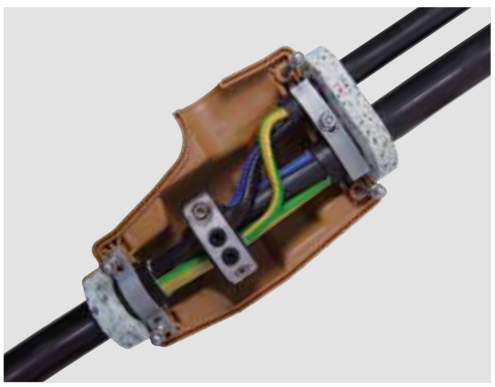
Optional accessory: Cleaner UNIVERSAL CLEANER 121 (see Accessories)

							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

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 40 months

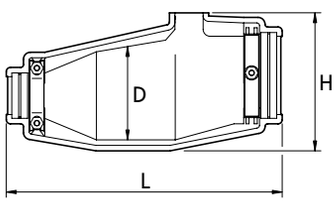
Scope of delivery
Hydrolysis resistance PUR type EG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, sealing gaskets, plastic shell with integrated strain relief, hexagon head screws and nuts, assembly instructions

Optional accessory: Branch clamp HE 1/70/150 (see Connecting technology)
Branch clamp KP (see Connecting technology)
Cleaner UNIVERSAL CLEANER 121 (see Accessories)

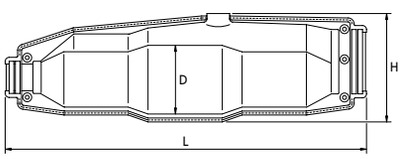
Note: For branch joints sizes larger than P 5 EG, branch clamps HE 1/70/150 can be used (see Connecting technology).

Dimensions

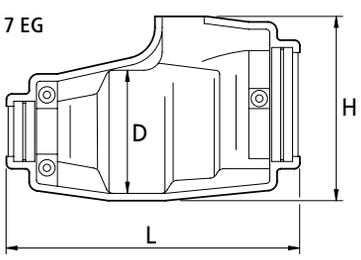
P 3 EG, PC 5 EG, PC 7 EG



PB 4 EG, PE 7 EG



P 4 EG - P 7 EG

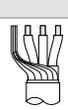
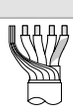


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→ Continuation

P...EG Cast resin branch joint

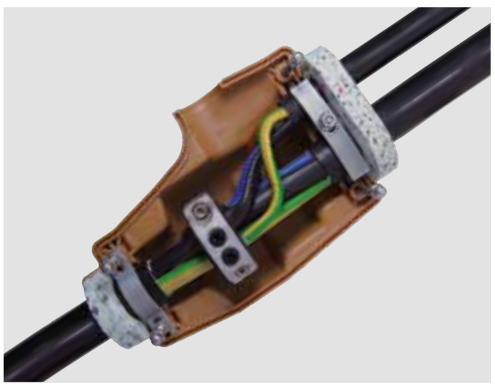
							Mass-impregnated paper cable		Polymeric cable unarmoured		
							 3x	 4x	 4x		
Type		L mm	D mm	H mm	max. Cable-Ø mm		Nominal cross section per conductor mm²				Art.-No.
					Main cable	Branch cable	Main cable	Branch cable	Main cable	Branch cable	
P	3 EG	342	90	160	15 - 35	12 - 30	10 - 16	10 - 16	10 - 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

							Polymeric cable with concentric conductor				
							 3x		 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	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

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

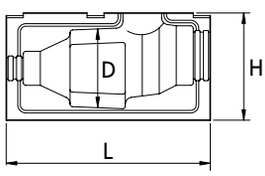
Scope of delivery
Hydrolysis resistance PUR type GG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, sealing gaskets, plastic shell with integrated strain relief, hexagon head screws and nuts, assembly instructions

Optional accessory: Branch clamp HE 1/70/150 (see Connecting technology)
Branch clamp KP (see Connecting technology)
Cleaner UNIVERSAL CLEANER 121 (see Accessories)

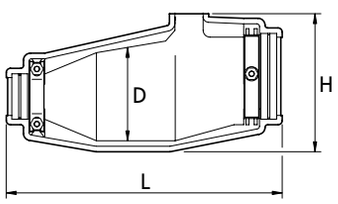
Note: For branch joints sizes larger than P 5 GG, branch clamps HE 1/70/150 can be used (see Connecting technology).

Dimensions

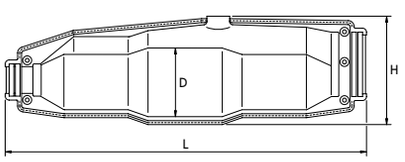
P 2 GG



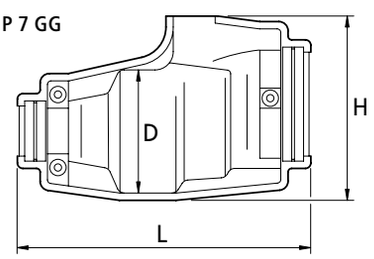
P 3 GG, PC 5 GG



PB 4 GG, PE 7 GG



P 5 GG - P 7 GG

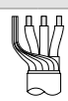
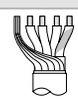


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→ Continuation

P...GG Cast resin branch joint

							Mass-impregnated paper cable		Polymeric cable unarmoured		
							 3x	 4x	 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	Branch cable	Main cable	Branch cable	
P	2 GG	240	90	127	13 - 25	13 - 25			2.5 - 16	2.5 - 16	329587
	3 GG	342	90	160	15 - 35	12 - 30	10 - 16	10 - 16	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

							Polymeric cable with concentric conductor				
							 3x		 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	Branch cable	Main cable	Branch cable	
P	2 GG	240	90	127	13 - 25	13 - 25					329587
	3 GG	342	90	160	15 - 35	12 - 30	10/10 - 16/16	4/4 - 16/16	10/10 - 16/16	4/4 - 16/16	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

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.



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

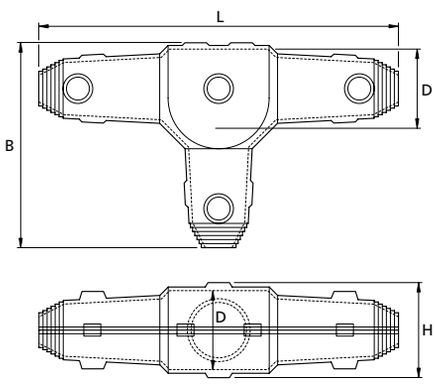
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

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 40 months

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, 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 — max. Nominal cross section per conductor mm²						Art.-No.
							3x		4x		5x		
							Main cable	Branch cable	Main cable	Branch cable	Main cable	Branch cable	
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 — max. Nominal cross section per conductor mm²				Art.-No.
							3x		4x		
							Main cable	Branch cable	Main cable	Branch cable	
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

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.



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

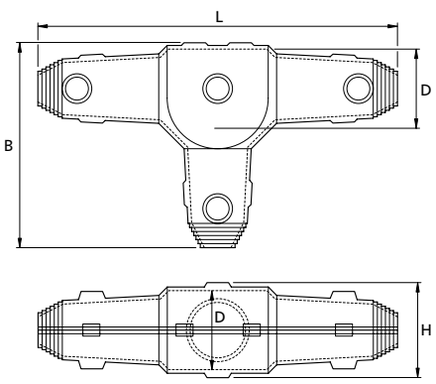
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

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



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

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.



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

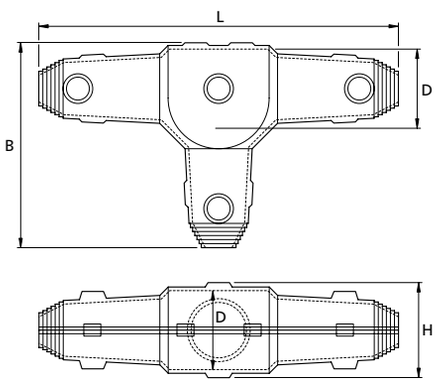
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

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

Test standards
- DIN EN 50393

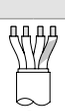
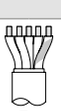
Storage conditions/Shelf life
- Cast resin up to 40 months

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, 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)

								Polymeric cable unarmoured				
								 4x		 5x		
Type		L mm	B mm	D mm	H mm	Cable-Ø mm		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

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.



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

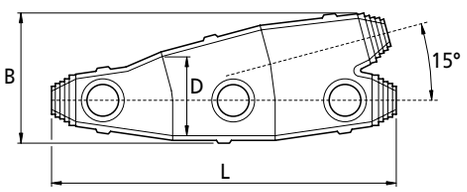
Test standards
- DIN EN 50393 (corresponds to VDE 0278)

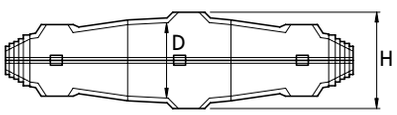
Storage conditions/Shelf life
- Cast resin up to 40 months

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

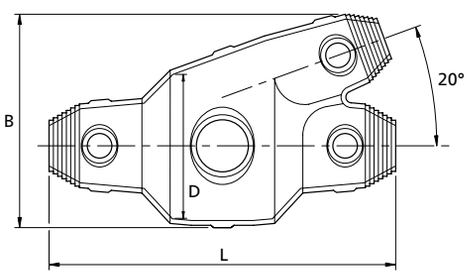
Optional accessory: Screw branch clamp AK (see Connecting technology)
Branch clamp KP (see Connecting technology)
Branch clamp HE 1/70/150 (see Connecting technology)
Split bolt clamp FK (see Connecting technology)
Cleaner UNIVERSAL CLEANER 121 (see Accessories)

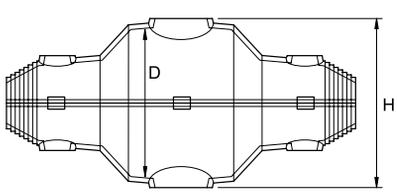
Dimensions





Y 0 EG, Y 3.5 EG, Y 6 EG





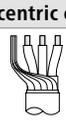
Y 00 EG, Y 1 EG, Y 2 EG, Y 3 EG, Y 4 EG, Y 4.5 EG, Y 5 EG

→ Continued on the next page

→ Continuation

Y...EG 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	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

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	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

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

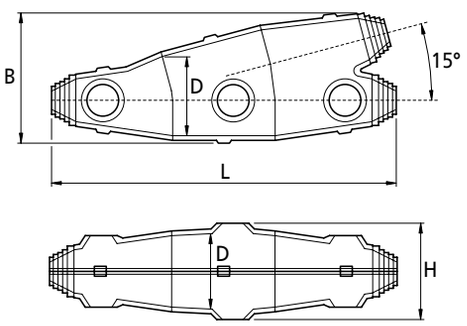
Test standards
- DIN EN 50393 (corresponds to VDE 0278)

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

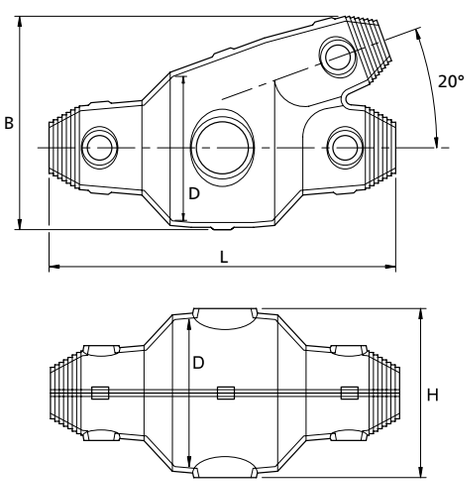
Scope of delivery
Hydrolysis resistance PUR type GG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, transparent plastic shell, closing stops, fill and air-release funnels, PVC insulation tape, protective gloves, assembly instructions

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)

Dimensions



Y 0 GG



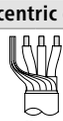
Y 1 GG, Y 2 GG, Y 3 GG, Y 4 GG,

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→ Continuation

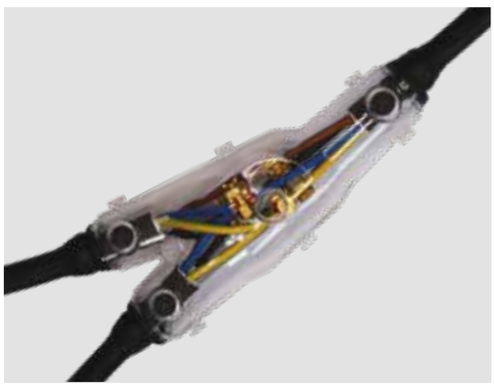
Y…GG Cast resin branch joint

								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	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

								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	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

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.



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

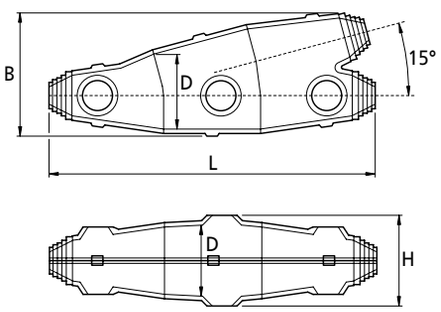
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

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

Test standards
- DIN EN 50393

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

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, transparent plastic shell, closing stops, fill and air-release funnels, screw branch clamps, PVC insulation tape, protective gloves, assembly instructions

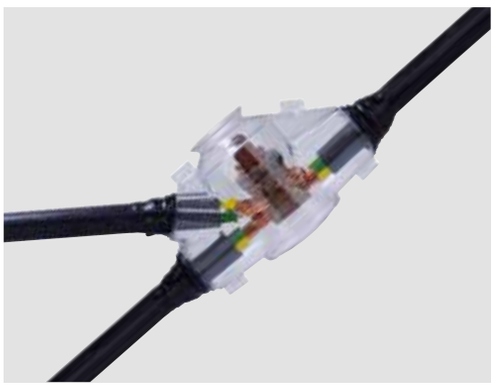
Optional accessory: Cleaner UNIVERSAL CLEANER 121 (see Accessories)

Type		L mm	B mm	D mm	H mm	max. Cable-Ø mm		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	
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

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.



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

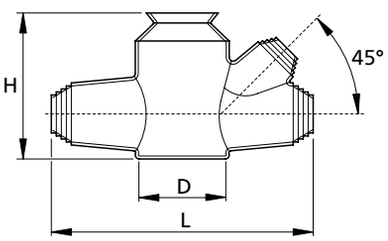
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

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 40 months

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, transparent plastic shell, closing stops, PVC insulation tape, protective gloves, assembly instructions

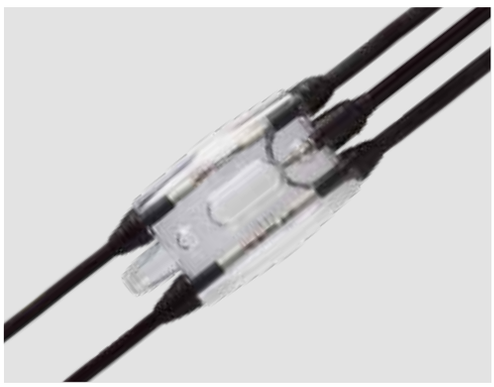
Optional accessory: Screw branch clamp AK (see Connecting technology)
Split bolt clamp FK (see Connecting technology)
Cleaner UNIVERSAL CLEANER 121 (see Accessories)

							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

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.



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

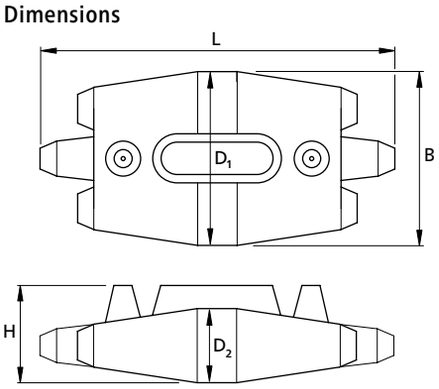
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level
- U_0/U (U_m) 0,6/1 (1,2) kV - 5KV DC

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

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

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, 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

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

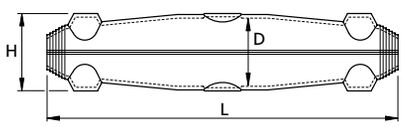
Storage conditions/Shelf life
- Cast resin up to 40 months

WAGO | inside

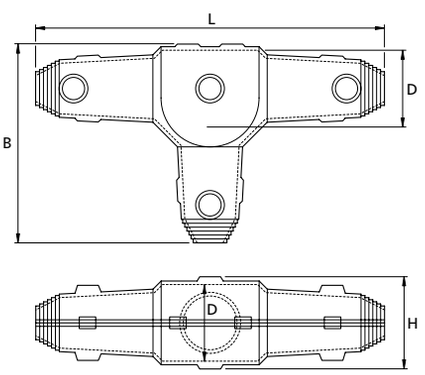
Scope of delivery
Cover, hydrolysis resistance PUR type EG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, WAGO COMPACT Splicing Connectors of the series 221 (T1 and Y1: Type 221 - 413, M1: Type 221 - 2411), transparent plastic shell, 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)

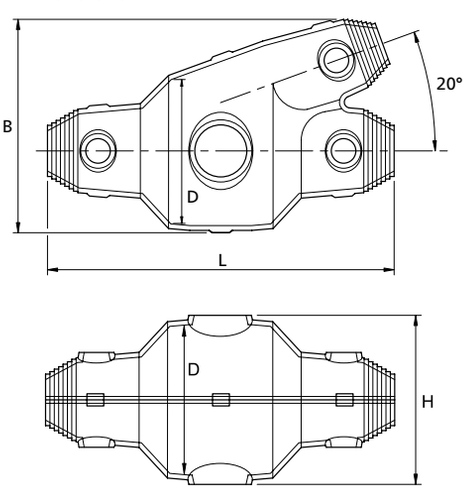
Dimensions M1



Dimensions T1



Dimensions T1



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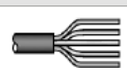
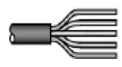
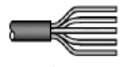
WAGO is a registered trademark of WAGO Verwaltungsellschaft mbH

→ 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

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.



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

Application/suitability
- Indoor areas (also with high exposure to moisture)
- Outdoor
- Earth

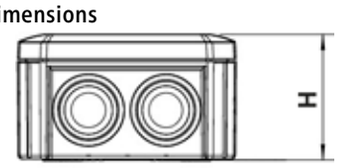
Voltage level
- 230/400 V

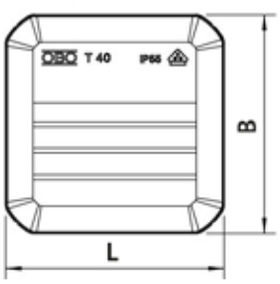
Test standards
- DIN EN 60529 (VDE 0470)
- DIN EN 50393 (VDE 0278)

Storage time/shelf life
- Cast resin up to 24 months

WAGO | inside

Dimensions





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.

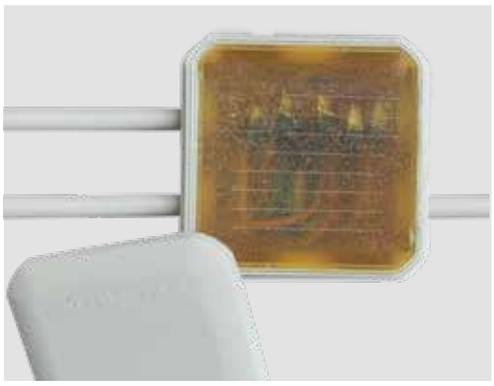
Type		OBO BETTERMANN cable junction box	WAGO COMPACT splicing connectors	Nominal cross-section per core mm²	Cast resin does not require a hazard label ml	Art.-no.
Universal Box CG	T40	T40	5 x 221-413	0,14f / 0,2 - 4	275	425589
	T60	T60	5 x 221-613	0,5 - 6	420	428123
	T100	T100	5 x 221-615	0,5 - 6	730	428124

Technical data	OBO BETTERMANN cable junction box type		
	T40	T60	T100
Dimension (LxBxH) mm			
inside	77x77x46	100x100x48	136x102x57
outside	90x90x52	114x114x57	150x116x67
Entry point	7 x M20	7 x M20	10 x M20
Cover catch	Snap closure	Screw cap	Screw cap

WAGO is a registered trademark of WAGO Verwaltungsgesellschaft mbH. Origin of the drawing: OBO BETTERMANN.

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.



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

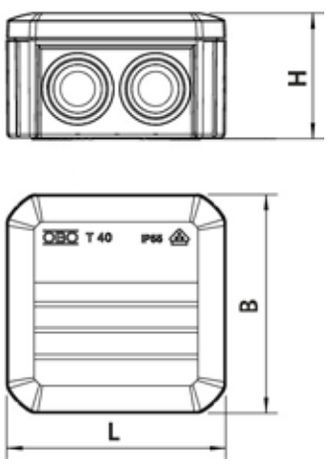
Application/Suitability
- Outdoor
- Indoor areas (also with high humidity level)
- Underground

Voltage level
- 230/400 V

Test standards
- DIN EN 60529 (VDE 0470)
- DIN EN 50393 (VDE 0278)

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

Dimensions



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

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

Test standards
- DIN VDE 0278-631-1

Storage conditions/Shelf life
- In aluminium bag 40 months at ambient temperatures between 15 °C and 35 °C

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

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→ 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/cm^3
Impact strength	> 10 kJ/m^2
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

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 identification according to the CLP-Regulation (EC) No. 1272/2008

Test standards
- DIN VDE 0278-631-1

Storage conditions/Shelf life
- In aluminium bag 24 months at ambient temperatures between 15 °C and 35 °C



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

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 identification 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

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

Storage conditions/Shelf life
- In aluminium bag 24 months at ambient temperatures between 15 °C and 30 °C

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** **23 °C** **40 °C**	 24 minutes 21 minutes 16 minutes	DIN EN 60455-2
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/cm^3	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

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

Test standards
- DIN VDE 0278-631-1

Storage conditions/Shelf life
- In aluminium bag 24 months at ambient temperatures between 15 °C and 35 °C

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**

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

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

Storage conditions/Shelf life
- In aluminium bag 24 months at ambient temperatures between 15 °C and 35 °C

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

→ 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/cm^3
Impact strength	> 20 kJ/m^2
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

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

Test standards
- DIN VDE 0278-631-1

Storage conditions/Shelf life
- In aluminium bag 24 months at ambient temperatures between 15 °C and 35 °C

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)

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

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

Storage conditions/Shelf life
- In aluminium bag 18 months at ambient temperatures between 15 °C and 35 °C

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

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

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

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.

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)

Typ	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

LOW VOLTAGE

Gel technology

 Gelboxes 114

 Straight-through joints 118

 Branch joints 122

 Casting compounds 123

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

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)

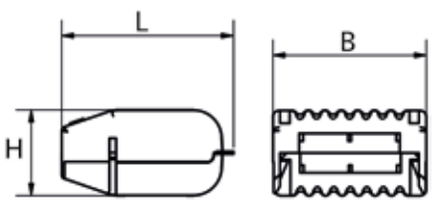
Note
- Not reusable

Voltage level
- U_0/U (U_m) 0,6/1 (1,2) kV

Test standards
- VDE type-tested system according to EN 60998-2

Storage conditions/Shelf life
- Unlimited shelf life at ambient temperature between 0 °C und 40 °C

Dimensions



Scope of delivery
pre-filled gel box, WAGO COMPACT Splicing Connector type 221

Designation	L mm	B mm	H mm	Assignment with WAGO COMPACT Splicing Connectors, type 221					
				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	0,5 - 6 mm²	1	410356
	413	4	1 x 221-613		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

→ Continued on the next page

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→ 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

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

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

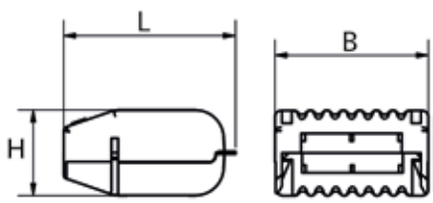
Voltage level
- U_0/U (U_m) 0,6/1 (1,2) kV

Test standards
- VDE type-tested system according to EN 60998-2

Storage conditions/Shelf life
- Unlimited shelf life at ambient temperature between 0 °C und 40 °C

WAGO | inside

Dimensions



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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→ 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

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

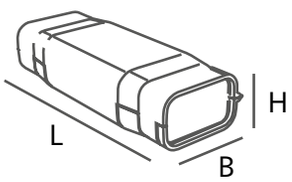
Application/Suitability
- Indoor
- Outdoor
- Underground without loads
- Cable ducts

Voltage level
- 450 V, 24 A

Test standards
- VDE type-tested system according to EN IEC 60670-1

Storage conditions/Shelf life
- Unlimited shelf life

Dimensions



Scope of delivery
Gel straight-through joint, connection block, assembly instruction

Type		L mm	B mm	H mm	Cable-Ø mm	Polymeric cable unarmoured 2x	Polymeric cable unarmoured 3x	Art.-No.
EASYCELL® COMPACT	1C-V	68	24	22	4,5 - 6,5	0,5 - 1,5		472575
	2C-V	72	28	24	6-8		0,75 - 1,5	472576



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

Application/Suitability
- Indoor
- Outdoor
- Underground
- Water (according to test standard)

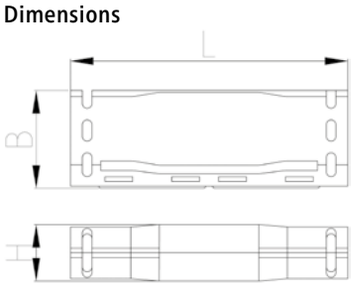
Voltage level
- U_0/U (U_m) 0.6/1 (1.2) kV

Test standards
- DIN EN 50393
- DIN EN 60695-2-11

Storage conditions/Shelf life
- Unlimited shelf life

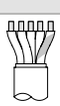


Dimensions



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)

					Polymeric cable unarmoured			
					 3x	 4x	 5x	
Type		**L mm**	**B mm**	**H mm**	**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

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

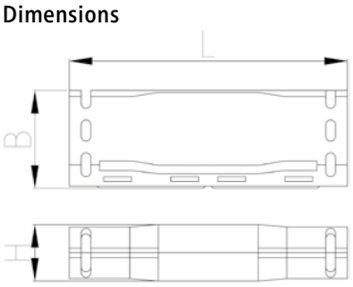
Application/Suitability
- Indoor
- Outdoor
- Underground

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

Test standards
- DIN EN 50393
- DIN EN 60695-2-11

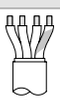
Storage conditions/Shelf life
- Unlimited shelf life

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.

						Polymeric cable unarmoured		
						 3x	 4x	
Type		**L mm**	**B mm**	**H mm**	**Cable-Ø mm**	**Nominal cross section per conductor mm²**		**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

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

Scope of delivery
Strain relief



Type	Art.-No.
Strain relief	310553

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

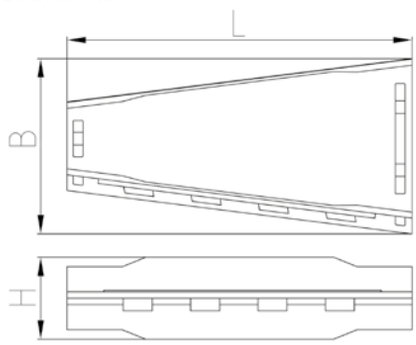
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water (according to test standard)

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

Test standards
- DIN EN 50393
- DIN EN 60695-2-11

Storage conditions/Shelf life
- Unlimited shelf life

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

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.



PATENTED SOLUTION

ECO FRIENDLY

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

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

Storage conditions/Shelf life

- Unlimited shelf life at ambient temperatures between 5 °C and 25°C

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	

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

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

Storage conditions/Shelf life
- Unlimited shelf life at ambient temperatures between 0 °C and 40 °C

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	

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

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

Storage conditions/Shelf life

- Unlimited shelf life at ambient temperatures between 0 °C and 40 °C

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	

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

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

Storage conditions/Shelf life
- 24 months at ambient temperatures between 0 °C and 40 °C

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	

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

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

Storage conditions/Shelf life

- 24 months at ambient temperatures between 0 °C and 30 °C

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	

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	

MEDIUM VOLTAGE

Cable sets for unscreened polymeric cables 131

Cable sets for screened polymeric cables 139

Cable sets for mass-impregnated paper cables 181

Heat shrinkable components 193

MEDIUM VOLTAGE

Cable sets
for unscreened polymeric cables


Straight-through joints 132


Cable terminations 136

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

Voltage level
- $U_0/U\,(U_m)$ 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 tube, pressure spring, cleaning tissue, emery cloth, assembly instructions

					Polymeric cable armoured	
Type		**L mm**	**max. Connector-Ø mm**	**max. Connector length mm**	**Nominal cross section mm^2**	**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
- $U_0/U\,(U_m)$ 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 mm^2	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

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). .



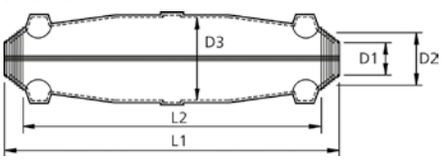
Characteristics
- Resistant to chemical agents
- Longitudinally and transversely watertight
- High mechanical strength
- Quick, safe and easy assembly

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

Voltage level
- $U_0/U\,(U_m)$ 3.6/6 (7.2) kV - 3.8/6.6 (7.2) kV

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

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

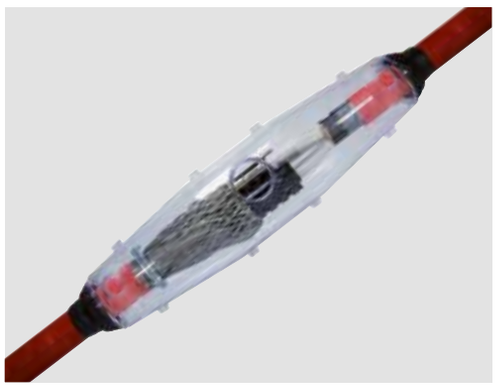
Note: Compression connectors should be ordered separately

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

M…MS6 UG
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. UG cast resin ensure flame protection (e.g. for mining).



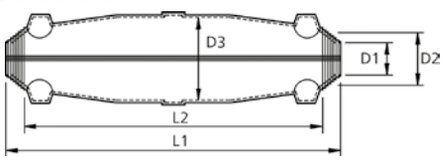
Characteristics
- Resistant to chemical agents
- Longitudinally and transversely watertight
- High mechanical strength
- Quick, safe and easy assembly

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

Voltage level
- $U_0/U\,(U_m)$ 3.6/6 (7.2) kV - 3.8/6.6 (7.2) kV

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

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

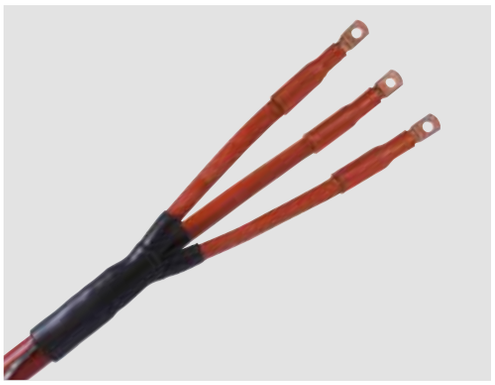
Note: Compression connectors should be ordered separately

								Polymeric insulated cable		
								armoured	armoured with concentric conductor	
Type		L1 mm	L2 mm	D1 mm	D2 mm	D3 mm	Cable-Ø mm	Nominal cross section mm^2		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

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
- Compact dimensions
- Wide conductor and cross-section range
- High mechanical strength
- Quick, safe and easy assembly

Application/Suitability
- Indoor

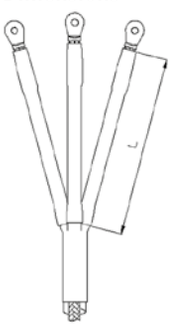
Voltage level
- $U_0/U\,(U_m)$ 3.6/6 (7.2) kV - 3.8/6.6 (7.2) kV

Storage conditions/Shelf life
- Unlimited shelf life

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)

Dimensions



			Polymeric cable armoured	
Type		**L mm**	**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

SEEV-F
3-core outdoor cable termination

for armoured 3-core polymeric cables without semi-conductive layer up to 7.2 kV

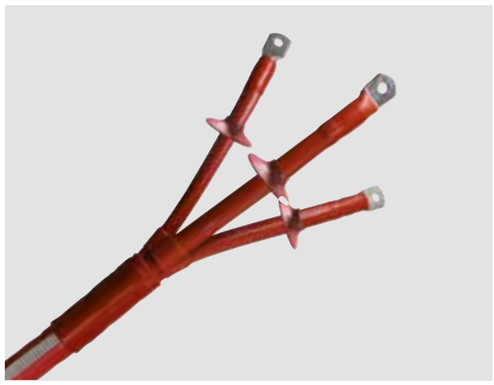
Cable terminations SEEV-F for outdoor applications are suitable to cover armoured 3-core polymeric cables (PVC, PE, XLPE, EPR) without semi-conductive layer. Suitable for compression cable lugs.

Characteristics
- Compact dimensions
- Wide conductor and cross-section range
- High mechanical strength
- Quick, safe and easy assembly

Application/Suitability
- Outdoor

Voltage level
- $U_0/U\,(U_m)$ 3.6/6 (7.2) kV - 3.8/6.6 (7.2) kV

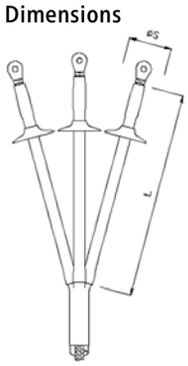
Storage conditions/Shelf life
- Unlimited shelf life



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)

Dimensions



Ø S = Diameter of cable shed

Type		L mm	Ø S mm	Polymeric cable armoured: Nominal cross section mm^2	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

MEDIUM VOLTAGE

Cable sets
for screened polymeric cables

 Straight-through joints for 1-core cables. 140

 Cable terminations for 1-core cables 149

 Separable connectors for 1-core cables 159

 Straight-through joints for 3-core cables. 173

 Cable terminations for 3-core cables 176

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

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)

Storage conditions/Shelf life
- Unlimited shelf life

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.

				12 kV	17.5 kV	24 kV	36 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 - 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

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

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

Voltage level
- $U_0/U\ (U_m)$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)

Storage conditions/Shelf life
- Unlimited shelf life

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

					12 kV	17,5 kV	24 kV	
Type		**L mm**	**Connector length mm**	**min. Ø over core insulation after removal of the outer conductive layer mm**	**Nominal cross section mm²**			**Art.-No.**
$U_0/U\ (U_m)$ 12/20 (24) kV - 1.,7/22 (24) kV								
CHRMSV 24kV	95-240	1000	440	19,9	150 - 240	120 - 240	95 - 240	304741

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

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)

Storage conditions/Shelf life
- Unlimited shelf life

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

				12 kV	17.5 kV	24 kV	36 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 - 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

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

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

Storage conditions/Shelf life
- Unlimited shelf life

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

				42 kV	
Type		**L mm**	**min. - max. Ø over core insulation after removal of the outer conductive layer mm**	**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

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

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)

Storage conditions/Shelf life
- Unlimited shelf life

Dimensions

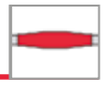


Scope of delivery
Thick wall heat shrinkable insulation tubes, thick wall heat shrinkable outer tube with hot melt adhesive, silicone stress control elements, copper braid tube, pressure springs, field control filling tape (blue), assembly material, assembly instructions

Optional accessory: Compression connectors (see Connecting technology)

						12 kV	17.5 kV	
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**		**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 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	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								
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

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.



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

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)

Storage conditions/Shelf life
- Unlimited shelf life

Dimensions



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)

					12 kV	24 kV	
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**		**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**

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

				12 kV	17.5 kV	24 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 - 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

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

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

Storage conditions/Shelf life
- 24 Monate at +5°C to +40°C

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

				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	
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 - 12.7/22 (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
CCMSV 24 kV	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								
	25-95	700	21.4 - 32			95	25 - 95	456153
	35-150	700	22.3 - 32			95 - 150	35 - 150	456154
CCMSV 36 kV	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

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

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)

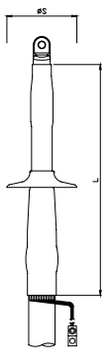
Storage conditions/Shelf life
- Unlimited shelf life

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

						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

Application/Suitability
- Indoor

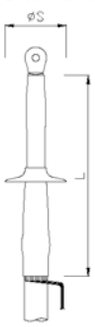
Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

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)

Storage conditions/Shelf life
- Unlimited shelf life

Dimensions



Ø S = Diameter of cable shed

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)

						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											
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

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

Application/Suitability
- Outdoor

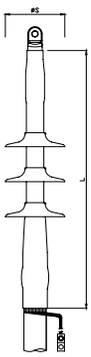
Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

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)

Storage conditions/Shelf life
- Unlimited shelf life

Dimensions



Ø S = Diameter of cable shed

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



→ Continuation

						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-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

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

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.)

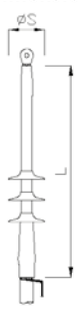
Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Storage conditions/Shelf life
- Unlimited shelf life

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



S = Diameter of cable shed

						12 kV	17.5 kV	24 kV	36 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											
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

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)

Storage conditions/Shelf life
- Unlimited shelf life



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)

						12 kV	24 kV	36 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									
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

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

Application/Suitability
- Indoor

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

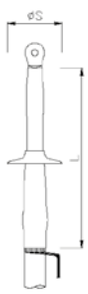
Note
- 12 kV cable terminations must be used for 7.2 kV cables. (Check minimum diameter over conductor insulation.)

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Storage conditions/Shelf life
- Unlimited shelf life



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)

						12 kV	24 kV	36 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									
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

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

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)

Storage conditions/Shelf life
- Unlimited shelf life



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)

						12 kV	24 kV	36 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									
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

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

Application/Suitability
- Outdoor

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

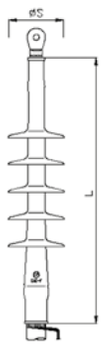
Note
- 12 kV cable terminations must be used for 7.2 kV cables. (Check minimum diameter over conductor insulation.)

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Storage conditions/Shelf life
- Unlimited shelf life



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)

						12 kV	24 kV	36 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									
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

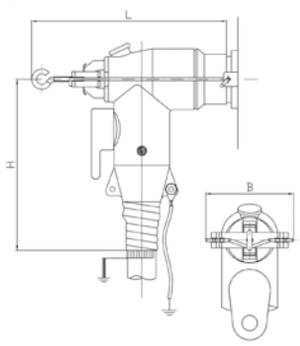
Application/Suitability
- Indoor

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

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

						12 kV	17.5 kV	24 kV	
Type		**L mm**	**B mm**	**H 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 - 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

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

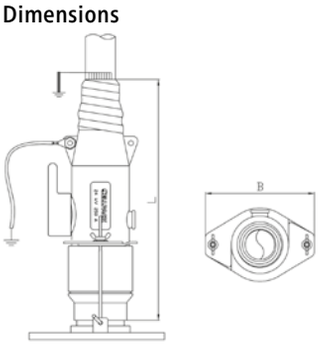
Application/Suitability
- Indoor

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

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 Nominal cross section mm²	17.5 kV Nominal cross section mm²	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

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

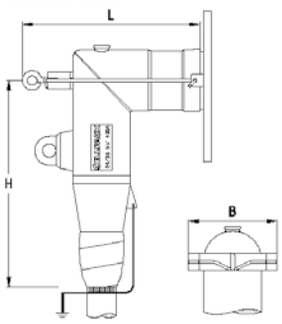
Application/Suitability
- Indoor

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)

Storage conditions/Shelf life
- Unlimited shelf life

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

						12 kV	17.5 kV	24 kV	36 kV	
Type		**L mm**	**B mm**	**H 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 - 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

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

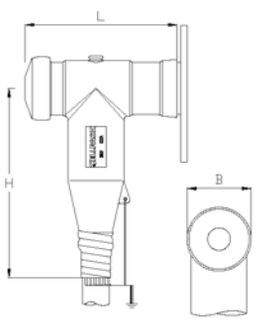
Application/Suitability
- Indoor
- Outdoor

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)

Storage conditions/Shelf life
- Unlimited shelf life

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

						12 kV	17.5 kV	24 kV	36 kV	
Type		**L mm**	**B mm**	**H 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 - 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**

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

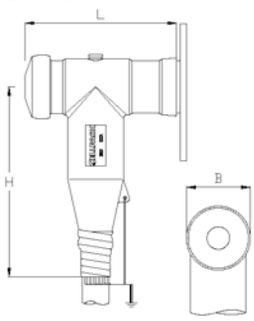
Application/Suitability
- Indoor

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)

Storage conditions/Shelf life
- Unlimited shelf life

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

					12 kV	17.5 kV	24 kV	36 kV	
Type	**L mm**	**B mm**	**H 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 - 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

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

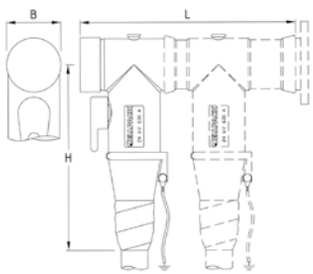
Application/Suitability
- Indoor

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)

Storage conditions/Shelf life
- Unlimited shelf life

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

						12 kV	17.5 kV	24 kV	36 kV	
Type		L mm	B mm	H 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 - 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

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

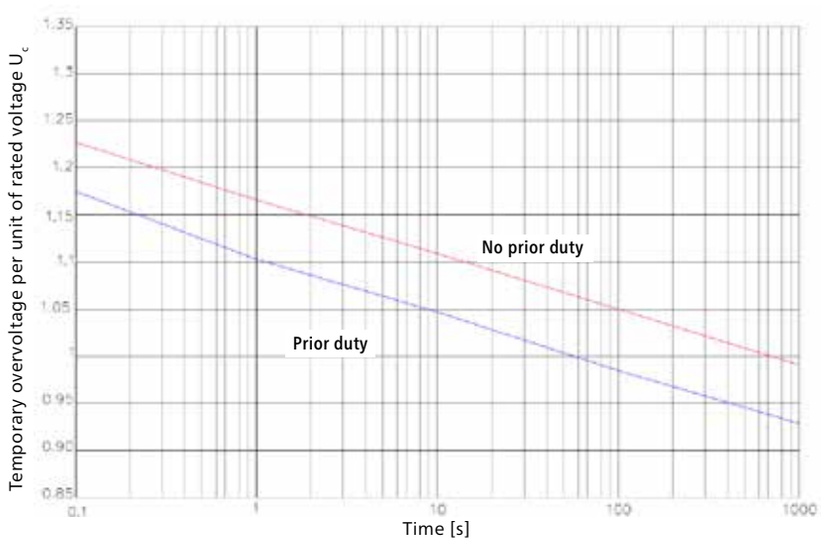
Application/Suitability
- Indoor
- Outdoor

Storage conditions/Shelf life
- Unlimited shelf life

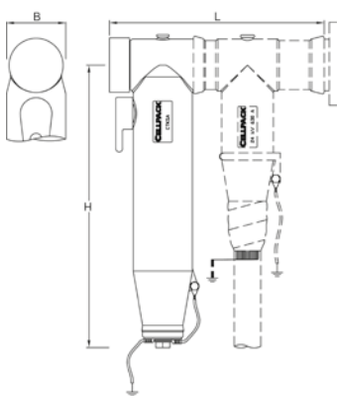


Scope of delivery
Set of 3 surge arresters, assembly material, assembly instructions

Power frequency versus time characteristic (TOV)
(maximum temperature: 60°C)



Dimensions



Type		L mm	B mm	H mm	Art.-No.
CTKSA	8 kV	290	80	380	423851
	12 kV	290	80	380	423852
	18 kV	290	80	380	423853
	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

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.
ZS	CTS 630A	257622
	CTS 1250A	374292
	CTKSA	478149
	CPS/CPES/CPAS	365078
	LPVT (voltage sensors) (IEC-61869-11)	391083

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

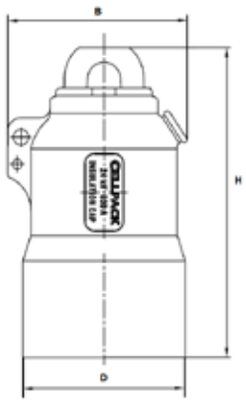
Application/Suitability
- Indoor
- Outdoor

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

Storage conditions/Shelf life
- Unlimited shelf life



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

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

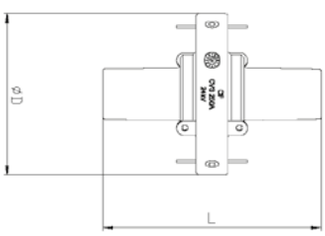
Application/Suitability
- Indoor

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 12.7/22 (24) kV

Storage conditions/Shelf life
- Unlimited shelf life

Scope of delivery
Set of 3 connecting elements, assembly material, assembly instructions

Dimensions



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

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

Application/Suitability
- Indoor

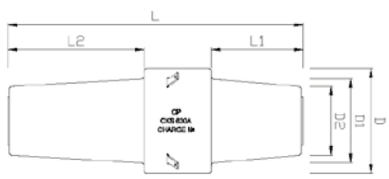
Voltage level
- U_0/U (U_m) 19/33 (36) kV

Test standards
- IEC 60137

Storage conditions/Shelf life
- Unlimited shelf life

Scope of delivery
Set of 3 coupling elements, assembly material, assembly instructions

Dimensions



D = Outer diameter

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

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

Application/Suitability
- Indoor
- Outdoor

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

Storage conditions/ Shelf life
- Unlimited shelf life

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**

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

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

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

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)

Storage conditions/Shelf life
- Unlimited shelf life

Dimensions



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.

				12 kV	17.5 kV	24 kV	36 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 - 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

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

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)

Storage conditions/Shelf life
- Unlimited shelf life

Dimensions



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.

				12 kV	17.5 kV	24 kV	36 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 - 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

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.



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

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)

Storage conditions/Shelf life
- Unlimited shelf life

Dimensions



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

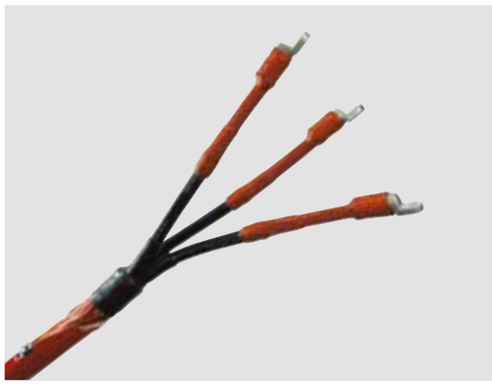
Optional accessory: Compression connectors (see Connecting technology)
Note: Straight-through joints with larger cross-section available on request.

						12 kV	17.5 kV	24 kV	36 kV	
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**				**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

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.



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

Application/Suitability
- Indoor

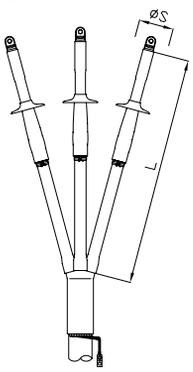
Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

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)

Storage conditions/Shelf life
- Unlimited shelf life

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)

						12 kV	17.5 kV	24 kV	36 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-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

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

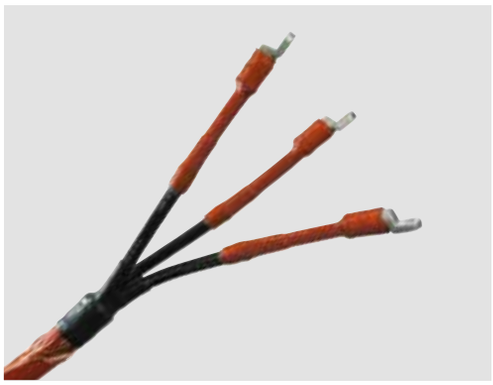
Application/Suitability
- Indoor

Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

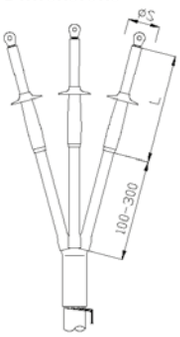
Note
- 12 kV cable terminations must be used for 7.2 kV cables. (Check minimum diameter over conductor insulation.)

Test standards
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Storage conditions/Shelf life
- Unlimited shelf life



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

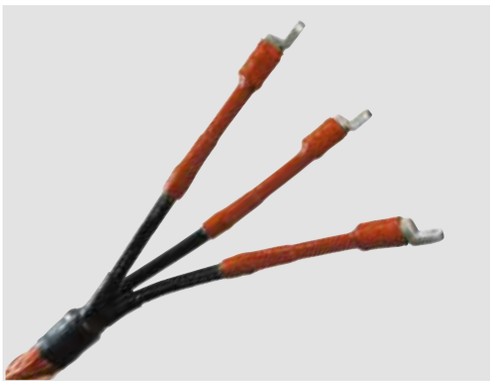
Optional accessory: Cable lugs (see Connecting technology)
EGA earthing kit for cables with tape screen (see Connecting technology)

Note: Other cable terminations available on request.

						12 kV	17.5 kV	24 kV	36 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										
CHE-3I(A) 12kV	10-25	300	9.9			10 - 25				146228
	25-95	300	12.6			25 - 95				146216
	95-240	300	17.3			95 - 240				146217
	150-400	300	19.9			150 - 400				146218
U_0/U (U_m) 8.7/15 (17.5) kV										
CHE-3I(A) 17kV	16-50	300	12.6	1	85		16 - 50			195365
	70-240	300	17.3	1	85		70 - 240			171761
	150-300	300	19.9	1	85		150 - 300			171762
	185-400	300	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	300	12.6	1	85			10 - 35		146300
	25-95	300	17.3	1	85			25 - 95		146302
	70-240	300	19.9	1	85			70 - 240		146301
	120-300	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	500	19.9	2	85				35 - 70	146158
	50-150	500	23.1	2	85				50 - 150	146159
	150-400	500	27.3	2	115				150 - 400	146160

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

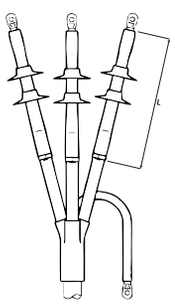
Application/Suitability
- Indoor

Voltage level
- U_0/U (U_m) 3,6/6 (7,2) - 12/20 (24) kV

Test standards
- CENELEC HD 629.1

Storage conditions/Shelf life
- Unlimited shelf life

Dimensions



Ø S = Diameter of cable shed

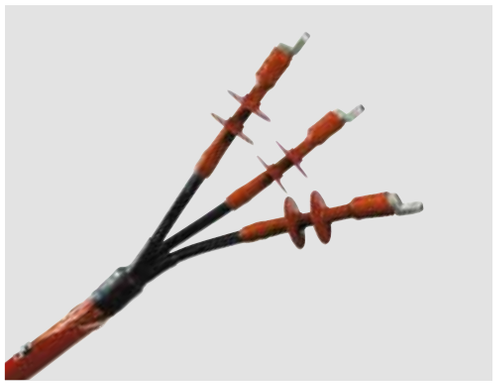
Scope of delivery
Spreader cap, heat shrinkable tube (tracking resistant), heat shrinkable tube, silicone stress control elements, silicone sheds, pressure spring, sealing tape, assembly material, working instructions

Optional accessory: Cable lugs (see Connecting technology)
Note: Other customised terminations available on request

					7.2 kV	12 kV	24 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, class 5 (IEC 60228) mm²**			**Art.-No.**
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

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

Application/Suitability
- Outdoor

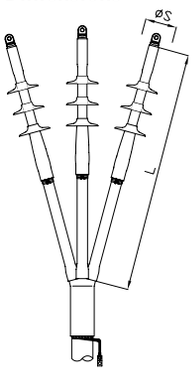
Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

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)

Storage conditions/Shelf life
- Unlimited shelf life

Dimensions



Ø S = Diameter of cable shed

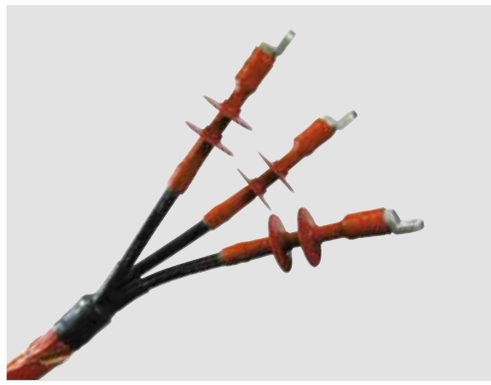
Scope of delivery
Spreader cap, heat shrinkable tube (tracking resistant), heat shrinkable tube, silicone stress control elements, silicone sheds, binding wire, sealing tape, screw cable lugs, assembly material, assembly instructions

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	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-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

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
- Ready for immediate operation

Application/Suitability
- Outdoor

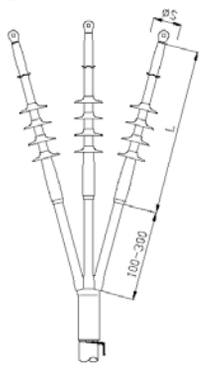
Voltage level
- U_0/U (U_m) 6/10 (12) kV - 19/33 (36) kV

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)

Storage conditions/Shelf life
- Unlimited shelf life

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.

						12 kV	17.5 kV	24 kV	36 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										
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

MEDIUM VOLTAGE

Cable sets
for mass-impregnated paper cables


Transition joints. 183


Straight-through joints 191

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

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

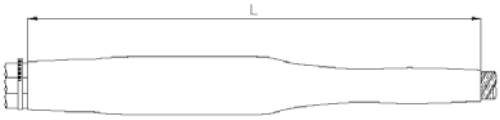
Application / Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

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)

Storage conditions / Shelf life
- Unlimited shelf life

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, 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.



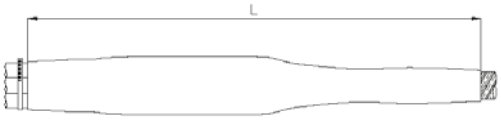
Characteristics
- Reliable stress control due to flexible silicone stress control elements
- Wide cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation

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)

Storage conditions/Shelf life
- Unlimited shelf life

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.

				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**	**max. Connector-Ø mm**	**max. Connector length mm**	**Nominal cross section mm²**	**max. Connector-Ø mm**	**max. Connector length mm**	**Art.-No.**
$U_0/U\ (U_m)$ 6/10 (12) kV - 8.7/15 (17.5) kV										
CHMPR3-1 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).

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

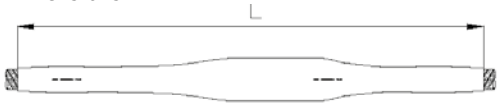
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

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)

Storage conditions/Shelf life
- Unlimited shelf life

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.

				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**	**max. Connector-Ø mm**	**max. Connector length mm**	**Nominal cross section mm²**	**max. Connector-Ø mm**	**max. Connector length mm**	**Art.-No.**
$U_0/U\ (U_m)$ 6/10 (12) kV - 8.7/15 (17.5) kV										
CHMPR3 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).

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

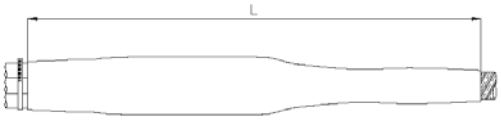
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

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)

Storage conditions/Shelf life
- Unlimited shelf life

Dimensions



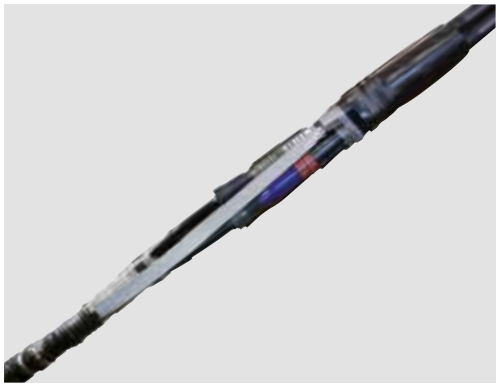
Scope of delivery
Spreader cap, thick wall heat shrinkable outer tube with hot melt adhesive, oil barrier tubing, heat shrinkable tubes, silicone stress control elements, earthing wire, copper braid tape, pressure spring, assembly material, sealing tape, field control filling tape (blue), fire protection wrapping, innovative screw connectors with conductive cover, assembly instructions

				24 kV	
Type		**L mm**	**min. Ø over core insulation after removal of the outer conductive layer mm**	**Nominal cross section mm²**	**Art.-No.**
$U_0/U\,(U_m)$ 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**

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

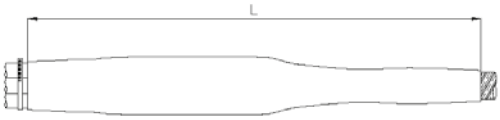
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

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)

Storage conditions/Shelf life
- Unlimited shelf life

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.

						24 kV	36 kV	
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**		**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).

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

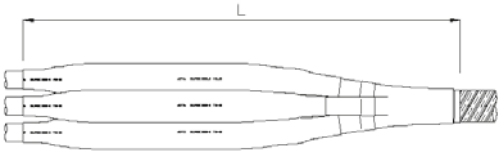
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

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)

Storage conditions/Shelf life
- Unlimited shelf life

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

				24 kV	
Type		**L mm**	**min. Ø over core insulation after removal of the outer conductive layer mm**	**Nominal cross section mm²**	**Art.-No.**
$U_0/U\,(U_m)$ 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

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

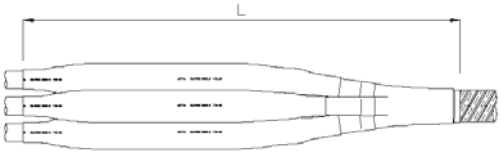
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

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)

Storage conditions/Shelf life
- Unlimited shelf life

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)

						24 kV	36 kV	
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**		**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).

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.



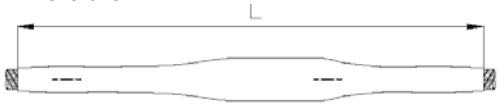
Characteristics
- Reliable stress control due to flexible silicone stress control elements
- Wide cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation

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)

Storage conditions/Shelf life
- Unlimited shelf life

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

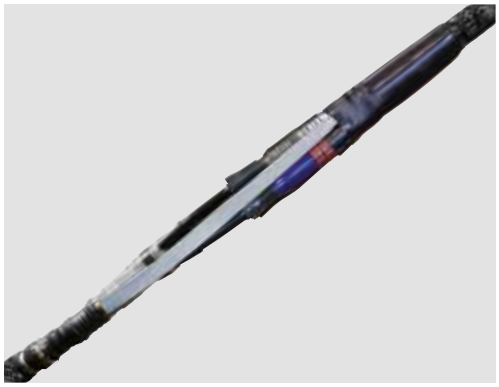
Optional accessory: Compression connectors (see Connecting technology)

						24 kV	36 kV	
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**		**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).

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

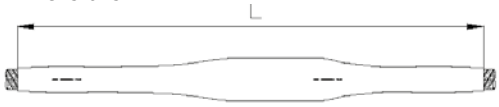
Application/Suitability
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

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)

Storage conditions/Shelf life
- Unlimited shelf life

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)

			12 kV			17.5 kV			
Type		**L mm**	**Nominal cross section mm²**	**max. Connector-Ø mm**	**max. Connector length mm**	**Nominal cross section mm²**	**max. Connector-Ø mm**	**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

MEDIUM VOLTAGE

Heat shrinkable components



Heat shrinkable tubes 194

SRBB
Heat shrinkable medium wall tube

protection for busbar systems and reduction of minimum clearance, halogen-free, shrink ratio 3 : 1

Characteristics
- Medium wall
- Stabilized against UV rays
- Halogen-free
- Tracking resistance in compliance with IEC 112
- Non-corrosive
- Resistant to bacteria and fungi
- 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

Storage conditions/Shelf life
- Unlimited shelf life



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.

Colours

Red brown

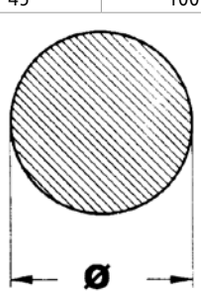
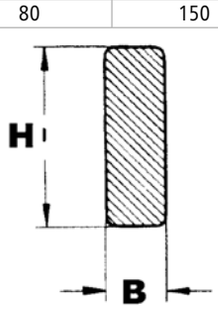
Type		L m	Inner-Ø mm before shrinking	Inner-Ø mm after shrinking	Recovered wall thickness mm	Art.-No.
Spool | Colour: Red brown						
SRBB	19-6	30	19	6	2.3	201942
	35-11	30	35	11	2.5	201943
	50-18	30	50	18	2.7	201944
	80-26	30	80	26	2.8	201945
	120-40	30	120	40	3	201946
Lengths | Colour: Red brown						
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

→ Continued on the next page

→ Continuation

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 recovered	 50 % 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

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

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

Storage conditions/Shelf life
- Unlimited shelf life



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 before shrinking	Inner-Ø mm after shrinking	Recovered wall thickness mm	Art.-No.
Spool | 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 | 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



→ 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.

CONNECTING TECHNOLOGY

Low and Medium Voltage

 Compression connectors 200

 Compression cable lugs 202

 Screw connectors. 204

 Screw cable lugs 205

 Branch ring connectors 206

Z Miscellaneous 208

DV-CU-V
Compression connector Cu
according to DIN 46267, without separator, for low voltage

Strain-relieving connector (hexagonally compressed) for copper conductors, suitable for joints.

Material
- Copper tin-plated

Application/Suitability
- Connector for RM/SM (Class 2) copper conductors according to DIN EN 60228 (VDE 0295)

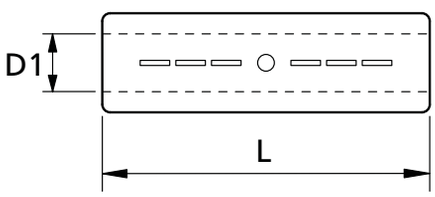
Construction standard
- DIN 46267, Part 1, non tension-proof press connections for copper conductors



Scope of delivery
Compression connector

Note: To be used with suitable crimping tool with DIN inserts.

Dimensions



L = Length
D1 = Centric borehole
K = Die code no.-outer diameter
RM = Round, stranded
SM = Sector-shaped, stranded

Type		L mm	D1 mm	Nominal cross section mm²	K mm	Art.-No.
DV-CU-V	6	30	3.8	6	5	125895
	10	30	4.5	10	6	125950
	16	50	5.5	16	8	125951
	25	50	7.0	25	10	125952
	35	50	8.2	35	12	125953
	50	56	10.0	50	14	125954
	70	56	11.5	70	16	125955
	95	70	13.5	95	18	125956
	120	70	15.5	120	20	125957
	150	80	17.0	150	22	125958
	240	90	21.5	240	28	125960

DVZ-CU-V-LD
Compression connector Cu
according to DIN 46267, with separator, for low voltage

Strain-relieving connector (hexagonally compressed) with a separator for copper conductors, suitable for joints.

Material
- Copper tin-plated

Application/Suitability
- Especially for transition joints and pot end joints
- Connector for RM/SM (Class 2) copper conductors according to DIN EN 60228 (VDE 0295)

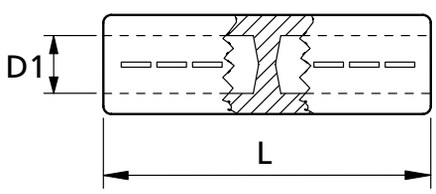
Construction standard
- DIN 46267, Part 1, non tension-proof press connections for copper conductors



Scope of delivery
Compression connector

Note: To be used with suitable crimping tool with DIN inserts.

Dimensions



L = Length
D1 = Centric borehole
K = Die code no.-outer diameter
RM = Round, stranded
SM = Sector-shaped, stranded

Type		L mm	D1 mm	Nominal cross section mm²	K mm	Art.-No.
DVZ-CU-V-LD	6	30	3.8	6	6	166374
	10	30	4.5	10	6	125966
	16	50	5.5	16	8	125897
	25	50	7.0	25	10	125898
	35	50	8.2	35	12	125899
	50	56	10.0	50	14	125900
	95	70	13.5	95	18	125902
	150	80	17.0	150	22	125904
	185	85	19.0	185	25	125905
	240	90	21.5	240	28	125906

DK-CU-V
Compression cable lug Cu

according to DIN 46235, for low and medium voltage

Cable lug (hexagonally compressed) for copper conductors, suitable for indoor cable terminations.

Material
- Copper tin-plated

Application/Suitability
- Cable lug recommended for copper conductors RM/SM (class 2) according to DIN EN 60228 (VDE 0295)

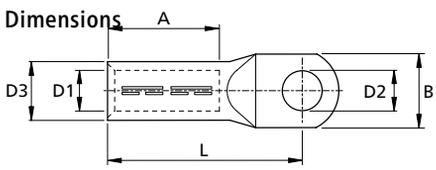
Standards
- Construction standard: DIN 46235
- Testing standard: DIN EN/IEC 61238



Scope of delivery
Compression cable lug

Note: To be used with suitable crimping tool with DIN inserts

Dimensions



L = Length
B = Width
D1 = Centric borehole
D2 = Plate bore diameter
D3 = Press insert outside diameter
A = Length hole drilling
RM = Round, stranded
SM = Sector-shaped, stranded
K = Die code no.-outer diameter

Type		L mm	B mm	D1 mm	D2 mm	D3 mm	K mm	A mm	Nominal cross section mm²	Art.-No.
DK-CU-V	6/6	24	8,5	3,8	6,4	5,5	5	10	6	126040
	10/8*	27	13	4,5	8,4	6,0	6	12	10	126044
	16/8	36	13	5,5	8,4	8,5	8	20	16	126046
	16/10	36	17	5,5	10,5	8,5	8	20	16	126047
	16/12*	36	18	5,5	13,0	8,5	8	20	16	126048
	25/10	38	17	7,0	10,5	10,0	10	20	25	126051
	25/12	38	19	7,0	13,0	10,0	10	20	25	126052
	35/10	42	19	8,2	10,5	12,5	12	20	35	126054
	35/12	42	21	8,2	13,0	12,5	12	20	35	126055
	50/10	52	22	10,0	10,5	14,5	14	28	50	126059
	50/12	52	24	10,0	13,0	14,5	14	28	50	126060
	70/10	55	24	11,5	10,5	16,5	16	28	70	126064
	95/12	65	28	13,5	13,0	19,0	18	35	95	126070
	120/12	70	32	15,5	13,0	21,0	20	35	120	126074
	150/12	78	34	17,0	13,0	23,5	22	40	150	126080
	150/16	78	34	17,0	17,0	23,5	22	40	150	126082
	185/12	82	37	19,0	13,0	25,5	25	42	185	126085
	185/16	82	37	19,0	17,0	25,5	25	42	185	126087
	240/12	92	42	21,5	13,0	29,0	28	42	240	126089
	240/16	92	42	21,5	17,0	29,0	28	42	240	126091
	300/14*	100	48	24,5	15,0	32,0	32	52	300	126093
	400/16	115	55	27,5	17,0	38,5	38	70	400	126096
	500/16*	125	60	31,0	17,0	42,0	42	70	500	126098

*** Connection bolt diameter not according to DIN 46235**

DK-AL-LD
Compression cable lug Al

according to DIN 46235, longitudinally sealed, for low and medium voltage

Cable lug (hexagonally compressed) for aluminium conductors, suitable for indoor and outdoor cable terminations.



Material
- Blank aluminium

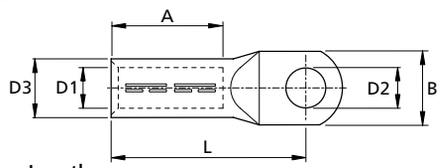
Application/Suitability
- Cable lug for aluminium conductor RM/SM (Class 2), RE and SE (Class 1) according to DIN EN 60228 (VDE 0295)

Construction standard
- DIN 46329, cable lugs for press connections (contact plate for aluminium)

Scope of delivery
Compression cable lug

Note: To be used with suitable crimping tool with DIN inserts

Dimensions



L = Length
B = Width
D1 = Centric borehole
D2 = Plate bore diameter
D3 = Press insert outside diameter
A = Length hole drilling
RM = Round, stranded
SM = Sector-shaped, stranded
RE = Round, massive
SE = Sector-shaped, massive
K = Die code no.-outer diameter

									RM/SM	RE	SE	
Type		**L mm**	**B mm**	**D1 mm**	**D2 mm**	**D3 mm**	**K mm**	**A mm**	**Nominal cross section mm²**			**Art.-No.**
DK-AL-LD	70/12	72	25	11,2	13,0	18,5	18	52	70		95	194942
	95/12	75	25	12,6	13,0	22,0	22	56	95		120	194941
	120/12	80	30	14,7	13,0	23,0	22	56	120		150	194939
	150/16	90	30	16,3	17,0	25,0	25	60	150		185	194936
	185/12	91	30	18,3	13,0	28,5	28	60	185		240	194935
	185/16	91	30	18,3	17,0	28,5	28	60	185		240	194934
	240/16	103	38	21,0	17,0	32,0	32	70	240		300	194933
	300/16	103	38	23,3	17,0	34,0	34	70	300			194932

* Not according to DIN 46329

CSV-T
Screw connector for Cu and Al

longitudinally sealed, with shear head bolts, with separator, for low voltage

Screw connector for RM/SM/RE/SE aluminium and copper conductors, suitable for straight-through and transition joints.

Material
- Aluminium tin-plated

Application/Suitability
- For connecting conductors RM/SM (class 2), RE/SE (class 1) according to DIN EN/IEC 60228 (VDE 0295)

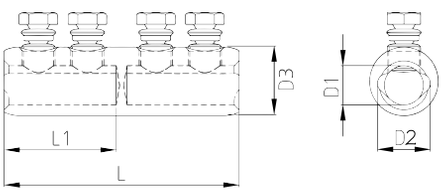
Test standards
- IEC 61238-1



Scope of delivery
Screw connector, assembly instructions

Note: BBC Cellpack counter-holder recommended for installation (see Accessories).

Dimensions



L = Length
L1 = Borehole depth
D1 = Centric borehole diameter
D2 = Sector-shaped borehole diameter
D3 = Outer diameter
RM = Round, stranded
SM = Sector-shaped, stranded
RE = Round, massive
SE = Sector-shaped, massive

Type		L mm	L1 mm	D1 mm	D2 mm	D3 mm	Number of bolts	Art.-No.
CSV-T	6-50	40	18.5	9	11.0	18	2	255406
	16-95	60	28	12.5	16.0	24	2	255408
	50-150	70	33	16.0	21.0	28	2	267708
	95-240	120	58	20.0	27.0	35	4	266811
	240-400	150	73	26.0	30.0	42	4	289677

CSK
Screw cable lug for Cu and Al

longitudinally sealed, with shear head bolts, for low and medium voltage

Screw cable lug for RM/SM/RE/SE aluminium and copper conductors, suitable for indoor and outdoor terminations.

Material
- Aluminium tin-plated

Application/Suitability
- For connecting conductors RM/SM (class 2), RE/SE (class 1) according to DIN EN/IEC 60228 (VDE 0295

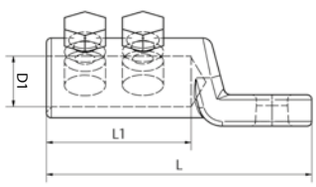
Test standards
- IEC 61238-1

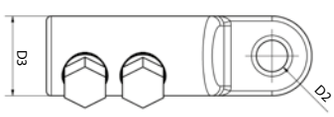


Scope of delivery
Screw cable lug, assembly instructions

Note: BBC Cellpack counter-holder recommended for installation (see Accessories).
Application according to AWG, ISWG and BWG standards on request.

Dimensions





L = Length
L1 = Length centric bore hole
D1 = Bore hole diameter
D2 = Plate bore diameter
D3 = Outer diameter
RM = Round, stranded
SM = Sector-shaped, stranded
RE = Round, massive
SE = Sector-shaped, massive

Type		L mm	L1 mm	D1 mm	D2 mm	D3 mm	Number of bolts	Art.-No.
CSK	6-50	65	30	9.4	13	22	1	374490
	16-95	65	30	12.5	13	22	1	374491
	50-150	80	35	16	13	28	1	374492
	95-240	110	60	20	13	33	2	374493
	95-240 DM17	110	60	20	17	33	2	374494
	240-400	135	75	26	16.5	40	2	374495

HE 1/70/150
Branch clamp
for low voltage

For branching of 4-core SM/SE low voltage cables up to 1 kV.



Characteristics
- Consists of sectional blocks with contacts, separators and inner hexagonal screws
- Connection of branch cable in visible area above the main cable
- Can be installed / operated while under voltage
- Safe and easy to handle

Material
- Fixing system: Aluminum blank
  Contact system: Brass tinned

Application/Suitability
- House connections
- SM (Class 2)/SE (Class 1) according to DIN EN/IEC 60228 (VDE 0295)

Scope of delivery
Branch clamp, insulating wedges, assembly instructions

SM = Sector-shaped, stranded
SE = Sector-shaped, massive
RM = Round, stranded

Type	Number of conductors	Nominal cross section Main cable mm²		Nominal cross section Branch cable SE,SM, RM mm²	Art.-No.
		SE	SM		
HE 1/70/150	4	95 - 150	70 - 120	16 - 50	193644

Compact ring clamp
Branch clamp
for low voltage

Branch clamp for aluminium sector shaped conductors.

Characteristics
- Contact screws can be accessed from the side or from above
- No stripping of wires
- Can be installed / operated while under voltage
- Safe and easy to handle

Material
- Aluminium blank

Application/Suitability
- For 3- or 4-core cables with PVC, XLPE (VPE) EPR insulation
- RM (class 2), SE (class 1) according to DIN EN/IEC 60228 (VDE 0295)



Scope of delivery
Branch clamp

D = Circumscribed diameter
RM = Round, stranded
SE = Sector-shaped, massive

				Cu/RM	Al/SE	Branch cable	1	2	
Type		Number of conductors	D mm	Cross section mm²			Width across flat mm		Art.-No.
Compact ring clamp	3x16-25/50	3	87	16 - 25		6 - 50	6	5	126194
	3x50/50	3	87	50 - 50		6 - 50	6	5	126195
	3x95/50-120/50	3	87	95 - 120	150	16 - 50	6	5	126196
	3x150/50	3	92	150 - 150		6 - 50	6	5	126200
	3x150/150	3	126	150 - 150		50 - 150	8	8	126199
	4x25/50	4	83	25 - 25	35	6 - 50	6	5	126204
	4x50/50	4	83	50 - 50	70	6 - 50	6	5	126206
	4x70/50	4	93	70 - 70	95	6 - 50	6	5	126207
	4x95-120/50	4	93	95 - 120	150	6 - 50	6	5	126208
	4x240se/70	4	124		240	6 - 70	8	5	126211

AK
Screw branch clamp Al-Cu

for cast resin straight-through and branch joints, for low voltage

Suitable for connecting and branching aluminium and copper conductors.



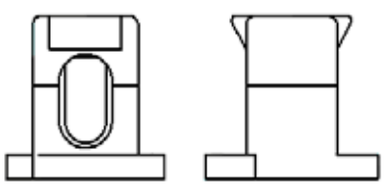
Characteristics
- Brass clamp tin-plated
- Divisible
- Halogen-free

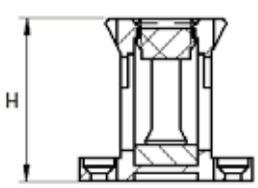
Standards
- EN 60998 -2-1:2004

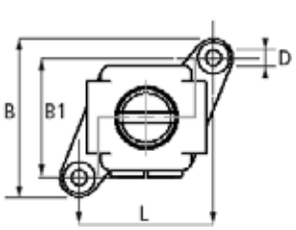
Scope of delivery
Screw branch clamp

Note: Separable, main cable must not be cut.

Dimensions







Type		H mm	B mm	B1 mm	L mm	D mm
AK	6	16.75	29	15	21	3,2
	10	22.75	31	18	23	3,2
	16	26.25	32	21	24	3,2
	25-35	34	36	25	28	3,2

Type		PU Piece	Solid cable max. Nominal cross section mm²		Stranded cable max. Nominal cross section mm²		Tightening torque Nm	Art.-No.
			Main cable	Branch cable	Main cable	Branch cable		
AK	6	12	2.5 - 6	2.5 - 6	2.5 - 4	2.5 - 4	0,8	446312
	10	12	4 - 10	4 - 10	4 - 6	4 - 6	1,2	446313
	16	12	6 - 16	6 - 16	4 - 10	4 - 10	2,5	446314
	25-35	12	16 - 35	16 - 35	10 - 25	10 - 25	2,5	446315

FK
Split bolt clamp

for cast resin straight-through and branch joints, for low voltage

For use as branch clamp or connector clamp for copper conductors.

Material
- Electrolyte copper



Scope of delivery
Split bolt clamp

Type		Height mm	Main cable		Nominal cross section Branch cable mm²	Width across flat in (mm)	Art.-No.
			Cross section mm²	Diameter mm			
FK	10	27	10	5.5	2,5 - 10	0.75 (19)	410186
	16	27	16	5.5	2,5 - 16	0.75 (19)	410187
	25	29	25	6.9	4 - 25	0.75 (19)	410188
	35	35	35	8.1	4 - 35	0.95 (24)	410189
	50	42	50	9.6	10 - 50	1.07 (27.3)	410190
	95	53	70 - 95	14	10 - 95	1.35 (35.3)	410191
	150	60	120 - 150	16	16 - 150	1.4 (35.55)	410192

V, VI, VS
Screw connector Al-Cu
for low voltage

Screw connector for aluminium and copper conductors with grub screws.

Characteristics
- V = Blank
- VI = Insulated
- VS = For heat shrinkable cable joints

Material
- Aluminium

Application/Suitability
- Cable conductors RM/SM (class 2), RE and SE (class 1) according to DIN EN/IEC 60228 (VDE 0295)

Scope of delivery
Screw connector



RM = Round, stranded
SM = Sector-shaped, stranded
SE = Sector-shaped, massive
RE = Round, massive

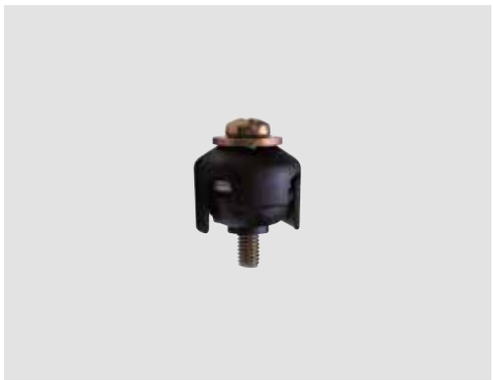
Type		RM	SM	SE	RE	Art.-No.
		Nominal cross section mm²				
V = Blank						
V	4-16				4 - 16	126169
	16-50				16 - 50	126170
VI = Insulated						
VI	4-16				4 - 16	126172
	16-50				16 - 50	126164
	50-150			50 - 95	50 - 150	126165
VS = For heat shrinkable cable joints						
VS	4-50	4 - 35	4 - 35	4 - 50	4 - 50	126214

KP
Branch clamp

for cast resin branch joints, for low voltage

Used for branching of copper cables and signal conductors.

Characteristics
- Plastic insulating housing with tinplated cutting contact
- Insulated cable exit allows assembly under voltage



Scope of delivery
Branch clamp

Type		W mm	H mm	Nominal cross section mm²		Art.-No.
				main cable	branch cable	
KP	1.5-10	23	20	1.5 - 10	1.5 - 10	126216

AVS
Wire connector

for telecommunication and signal cables, DIN 47627

Suitable for connecting polymeric-insulated telecommunication and signal cables e.g. in heat shrinkable telecommunication joints, as well as for modern building management systems (such as communication, telephone or surveillance systems and bus systems).



Characteristics
- Grease-filled to protect against corrosion
- Shock-resistant polymeric housing
- Reliable connection due to U contact principle
- Stripping, connection and insulation carried out in a single step
- Space-saving design, easy assembly
- High electrical insulating values
- High mechanical and thermal strength

Application/Suitability
- Not suitable for cable conductor class 5 (according to DIN EN/IEC 60228)

Colours

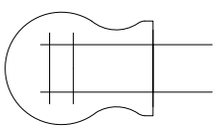


Transparent

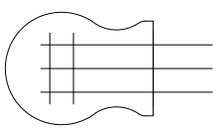
Scope of delivery
Wire connector

Note: For compression and a proper conductor/connector contact, use a suitable crimping tool.

Types



AVS2-9



AVS3-9

Type		Number of conductors	Conductor-Ø mm	Core-Ø mm	Art.-No.
AVS	2-9	2	0.4 - 0.9	2	145624
	3-9	3	0.4 - 0.9	2	145622

Technical data	Value	Test standard
Insulation resistance	106 MΩ	DIN 47627
Voltage strength between conductors	500 V	DIN 47627
Modification of contact resistance	2 mΩ	DIN 47627
Surge voltage resistance	5 kV	DIN 47627
Impulse current resistance	no burn marks in contact area	DIN 47627

DR, DR-L
Heat shrinkable crimp connector
insulated with heat shrinkable tube, with adhesive, for low voltage

Durable and reliable connector for application in areas under extreme conditions. Hot melt adhesive completely seals the connection area.

Characteristics
- 100 % waterproof
- Superior electrical properties
- High mechanical strength

Application/Suitability
- Indoor

Note
- Length tolerance ±4 %



Scope of delivery
1 PU heat shrinkable crimp connectors

Note: For compression and a proper conductor/heat shrinkable compression connector contact, use a suitable crimping tool.

Colours



Red Blue Yellow

Type		Length mm	Colours	PU Piece	Nominal cross section mm²	Art.-No.
DR	1	37	Red	20	0.5 - 1.5	456330
	1	37	Red	100	0.5 - 1.5	456333
	2	37	Blue	20	1.5 - 2.5	456331
	2	37	Blue	100	1.5 - 2.5	456334
	3	42	Yellow	20	4 - 6	456332
	3	42	Yellow	100	4 - 6	456335
DR-L	2	55	Blue	20	1.5 - 2.5	456336
	2	55	Blue	100	1.5 - 2.5	456337

Technical data	DR	DR-L
Tensile strength	10.4 MPa	16 MPa
Heat resistance (168 h at 175 °C)	No breaking	No breaking
Heat shock (4 h at 225 °C)	No breaking	No breaking
Temperature range	-40 °C up to 105 °C	-55 °C up to 125 °C
Shrinkage temperature	< 150 °C	< 80 °C
Corrosion	None	None
Water absorption	max. 0.5 %	max. 0.5 %
Max. Voltage	600 V	600 V

CL
Earthing clamp

for low voltage

Suitable for armouring and tape screens, for earthing of cable ends and for continuity in straight-through joints.

Material
- Copper tin-plated

Application/Suitability
- Enables solder-free electrical connection for armourings and cable screens



Scope of delivery
Earthing clamp

			Polymeric cable Armoured  4x	
Type		**Cross section transition mm²**	**Nominal cross section per conductor mm²**	**Art.-No.**
CL	6	≤ 6	2.5 - 16	126301
	16	≤ 16	16 - 240	126302

EGA
Earthing set for Cable Joints type CHMSV3 & CHMSV3-1

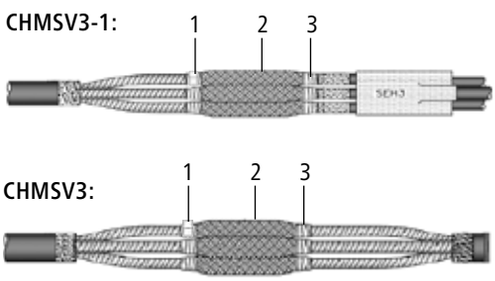
for connection of polymeric insulated cables with tape screen

EGA earthing set for cable joints CHMSV3 & CHMSV3-1 is suitable for connection of three core cables with copper or aluminum tape screen. Kit components: 3 copper braided tubes and 6 pressure springs.

Characteristics
- Quick, safe and easy assembly
- Superior electrical properties
- High mechanical strength

Application/Suitability
- Earthing continuity and earth bonding
- For cable joints type CHMSV3 & CHMSV3-1
- Enable solder-free electrical connec-tion of metal cable components (cable screen)





1 = Pressure spring
2 = Copper braid
3 = PVC tape

Scope of delivery
1 set for 3 phases: Copper braided tubes, pressure springs RF

Type		L Copper braided tube mm	Pressure spring	Copper braided tube Nominal cross section mm²	Nominal cross section mm²				Art.-No.
					12 kV	17.5 kV	24 kV	36 kV	
EGA	1	400	RF2	35	25 - 95 70 - 150	25 - 95	16 - 95	-	420576
	2	500	RF3	35	-	70 - 150	50 - 150	50 - 150	420577
	3	450	RF3	35	95 - 240	95 - 240	95 - 240	-	420578
	4	500	RF4	35	-	-	-	95 - 240	420646
	5	600	RF4	35	240 - 400	240 - 400	240 - 400	240 - 400	420647

* The earthing set must be selected according to the nominal cross section of the selected joint.

EGA
Earthing set for cable terminations

for cables with tape screen and/or armouring for cable terminations, for low and medium voltage

EGA earthing set for cable terminations for 1-core cables with copper tape or aluminium screen (Fig. 1) and for unarmoured 3-core cables (Fig. 3).
Kit components: 3 flat-rolled copper earth braids and 3 pressure springs.



Characteristics
- Quick, safe and easy assembly
- Superior electrical properties
- High mechanical strength

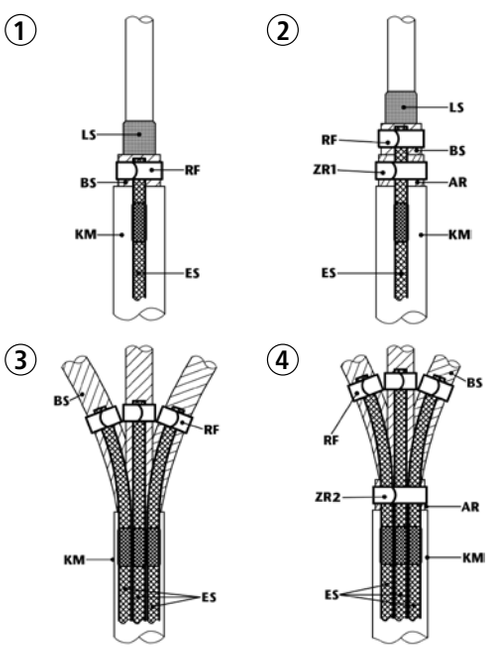
Application/Suitability
- Earthing continuity and earth bonding
- For cast resin, heat shrinkable and slip-on cable accessories
- Enables solder-free electrical connection of metal cable components (screen, armouring, metal sheath)

Termination types
- (1) 1-core cables with copper tape or aluminium screens unarmoured
- (2) 1-core cables with copper tape or aluminium screens armoured, please order extra pressure spring (ZR1)
- (3) 3-core cables with copper tape or aluminium screens unarmoured
- (4) 3-core cables with copper tape or aluminium screens armoured, please order extra pressure spring (ZR2)

Scope of delivery
1 set for 3 phases: Copper earth braids, pressure springs RF

Note: Additional pressure springs RF (ZR1/ZR2) for armoured cables to be ordered separately (see Accessories).

Termination types



LS = External conducting layer
BS = Cu-tape screen
KM = Cable sheath
RF = Type RF pressure spring
ES = Copper earth braid, flat tin-plated
AR = Armouring
ZR1 = Extra pressure spring 1-core
ZR2 = Extra pressure spring 3-core

Type		L mm	Pressure spring	Copper earth braids		Nominal cross section mm²					ZR1	ZR2	Art.-No.
				Ø hole mm	Nominal cross section mm²	7.2 kV	12 kV	17.5 kV	24 kV	36 kV			
EGA	16-2	500	RF 2	8.5	16	150	120	70	50		RF3	RF5	143502
	16-3	500	RF 3	8.5	16	150 - 240	120 - 240	95 - 185	70 - 150	120	RF4	RF5	143503
	25-3	500	RF 3	10.5	25	150 - 500	120 - 500	95 - 300	70 - 300	70 - 240	RF4	RF6	143505
	25-4	500	RF 4	10.5	25					150 - 300	RF5	RF6	143506
	35-4	500	RF 4	10.5	35	500 - 1000	500 - 1000	400 - 800	300 - 800	185 - 500	RF5	RF6	143508
	35-5	500	RF 5	10.5	35			800 - 1000	800 - 1000	500 - 1000	RF6		143509

EGA-CCMSV-AFS
Earthing kit
for application on polymeric cables up to 36 kV

EGA-CCMSV-AFS earthing kit for all-in-one cold-shrink cable straight through joints of type CCMSV for 1- core cables of type: RH5Z1, NF C 33-226, XD-ALT, ARE4H5E, ARE1H5E with al-foil screen bonded to the outer sheath.



Characteristics
- Quick, safe and easy assembly
- Ensure good electrical connection

Application/Suitability
- Earthing continuity
- Indoor/Outdoor

Voltage level
- U_0/U (U_m) 6/10 (12) kV – 18/30 (36) kV

Test standard
- CENELEC HD 629.1

Storage conditions/Shelf life
- Unlimited shelf life

Scope of delivery
Contact plate, stainless-steel cable ties, installation instructions

Type		Nominal cross section mm²				Art.-No.
		6/10 (12) - 6,35/11 (12) kV	8,7/15 (17,5) kV	12/20 (24) - 2,7/22 (24) kV	18/30 (36) kV	
EGA-CCMSV-AFS	EGA-1	95 150-240	70-95 95-185	35-95 95-150	25-70	461184
	EGA-2	240-300 400 400-630	150-240 185-300 300-400 400-500	95-240 120-300 240-400 300-500	35-95 35-150 95-240 240-400 300-400	461182
	EGA-3	-	630	630	400-630	461183

* The earthing set must be selected according to the nominal cross-section of the selected joint.

AUF
Armour transition for 3-core joints
for armoured cables, for medium voltage

Armour continuity set for armoured 3-core cable joints.

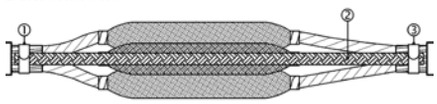
Characteristics
- Quick, safe and easy assembly
- Superior electrical properties
- High mechanical strength

Application/Suitability
- Earthing continuity and earth bonding
- For cast resin, heat shrinkable and slip-on cable accessories
- Enables solder-free electrical connection of metal cable components (screen, armouring, metal sheath)



Scope of delivery
1 set for 3 phases: Copper braid, pressure springs RF

Dimensions



L = Length
1. Pressure spring
2. Copper braid
3. Pressure spring

Type		L mm	Pressure spring	Copper cord Nominal cross section mm²	Nominal cross section mm²					Art.-No.
					7.2 kV	12 kV	17.5 kV	24 kV	36 kV	
AUF	5	1200	RF 5	35	300	240	240	150	70	195367
	6	1200	RF 6	35	400	300 - 400	300 - 400	185 - 300	95 - 300	195368

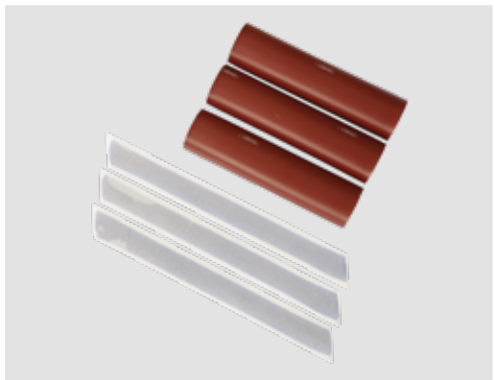
Padding-Kit

Kit for reducing the cross-section of joints

for joints for medium voltage mass-impregnated paper cable

Characteristics
- Quick, safe and easy assembly

Application/Suitability
- For cables with big difference of cross-sections
- For connection of polymeric insulated cables with mass-impregnated paper cables
- For the following cable types: belted cable, H-cable, lead sheath cable and similar



Scope of delivery
Heat shrinkable tubes, Oil barrier tubing, Mastic tape

Type	Application	Nominal cross-section polymeric insulated cable mm²				min. Ø over core insulation mm²	Nominal cross-section mass-impregnated paper cable mm²	Art.-No.
		6/10 (12) kV	8.7/15 (17.5) kV	12/20 (24) kV	18/30 (36) kV			
PS(G+H)	CHMPR3 CHMPR3-1	95-300				17.3	(25*) 35-70	197690
			70-240			17.3	25-50	
PS	CHMPRSV 3-1 (VM)		95-240			17.3	35-70	298442
		95-240				17.3	35-70	
PS(H)	CHMP(H)3 CHMP(H)3-1			95-240		19.9	35-70	197692
PS(3PB+PB)	CHMP(3Pb)3			95-240		19.9	35-70	197699
PS(3PB+PB)	CHMP(3Pb)3 CHMP(3Pb)3-1				95-240	23.1	35-70	197701
PS(3Pb+Pb)	CHMP(3Pb)3 CHMP(3Pb)3-1				150-300	27.3	70-150	197702

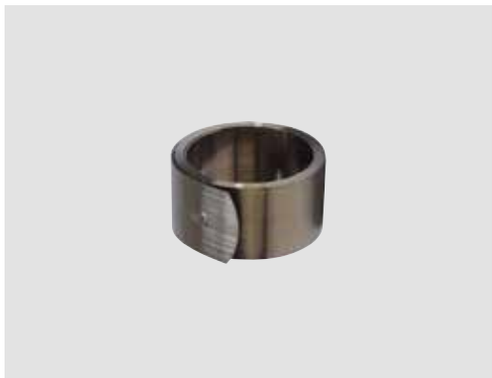
RF
Pressure spring
for permanently elastic contact

Characteristics
- Corrosion-resistant
- Fatigue-proof
- Guarantees consistent radial contact stress

Application/Suitability
- For cast resin, heat shrinkable and slip-on cable accessories
- Enables solder-free electrical connection of metal cable components (screen, armouring, metal sheath) and earthing elements (copper grounding wire, cooper mesh joint etc.)

Note
- Pressure springs are no current-carrying parts.

Material
- Special stainless steel



Colours

Brass

Type		Width mm	Cable-Ø mm	Outer-Ø mm	Art.-No.
RF	0	16	6 - 10	5.7	456338
	0.5	16	9 - 14	8.5	456339
	1	16	13 - 22	13.0	456340
	2	16	17 - 28	17.5	456341
	3	16	24 - 37	21.5	456342
	4	16	33 - 49	29.0	456343
	5	20	44 - 70	37.8	456344
	6	20	55 - 92	51.3	456345

ELECTRICAL INSULATION AND MOUNTING TAPES

 Electrical insulation and mounting tapes 223

 Additional tapes 236

Z Miscellaneous 240

Overview: Cellpack Electrical insulation and mounting tapes / Additional tapes

Products	Properties						
	insulating	self-amalgamating	inscribable	stabilized against UV rays	con-ductive	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

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

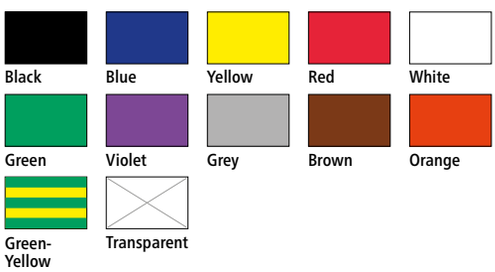
Application/Suitability
- Sealing
- Padding of cable insulation
- Bundling
- Reinforcing
- As insulation of electrical and telecommunication cables
- Colour-coding

Test standards
- Approved according VDE Type IEC 60454-3-1-5/F-PVCP/90 (except transparent)

Material
- PVC



Colours



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

→ Continued on the next page

→ 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

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

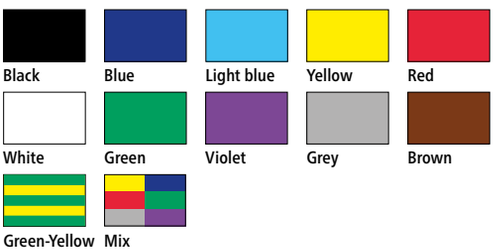
Application/Suitability
- Fastening and protection during cable pull-in
- Bundling and reinforcing
- Sealing
- Marking of insulations with high mechanical load requirements
- As insulation in the electrical and telecommunication field

Test standards
- Approval according to VDE IEC 60454-3-1-11/F-PVCP/105

Material
- Soft-PVC



Colours



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

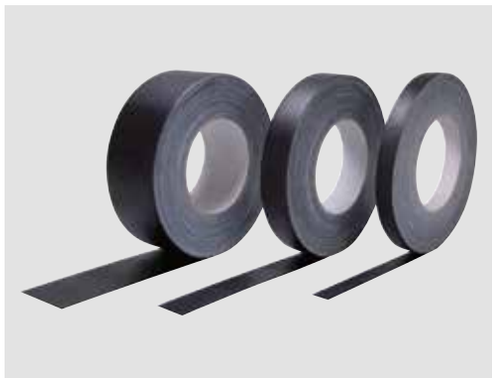
for marking and labeling

High quality waterproof sealing cotton cloth tape with synthetic rubber adhesive.

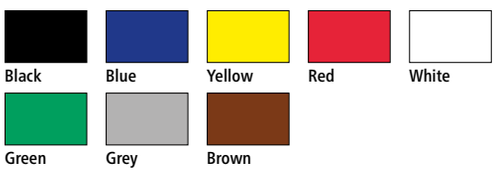
Characteristics
- Synthetic rubber adhesive
- Hard-wearing
- Can be labelled at all times
- Easy to tear
- Easy to unroll
- Superior ageing resistance
- Can be adjusted to suit the form better
- Excellent adherence to a wide range of substances
- Easy processing

Application/Suitability
- Marking
- Labelling
- Affixing
- Bundling

Material
- Coated cotton



Colours



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

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



Scope of delivery
Copper braid tape

Colours

Silver

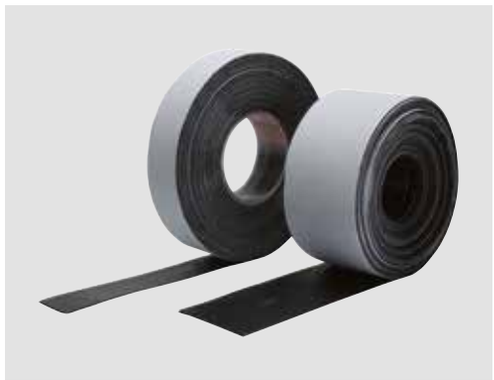
Type	Colours	Length m	Width mm	Thickness mm	Art.-No.
No. 63	Silver	5	25	0.5	126313
	Silver	9.1	25	0.5	126303
	Silver	5	60	0.5	204984
	Silver	10	60	0.5	207247

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



Scope of delivery
Conductive tape

Colours

Black

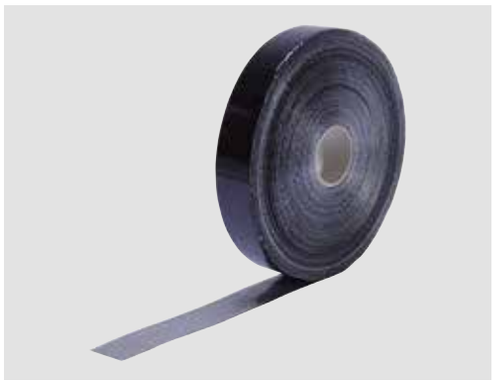
Type	Colours	Length m	Width mm	Thickness mm	Art.-No.
No. 61	Black	4.6	19	0.76	125604
	Black	9.1	19	0.76	125590

Technical data	Value
Elongation at break	935 %
Tensile strength at break	1,73 MPa
Specific volume resistivity	$<10^3$ Ω cm
Temperature range	-40 °C up to 130 °C

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

Scope of delivery
Tape for cable bundle

Colours
Black

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

Scope of delivery
Fibreglass tape

Colours
White

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

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

Scope of delivery
Fibreglass tape

Colours
White

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

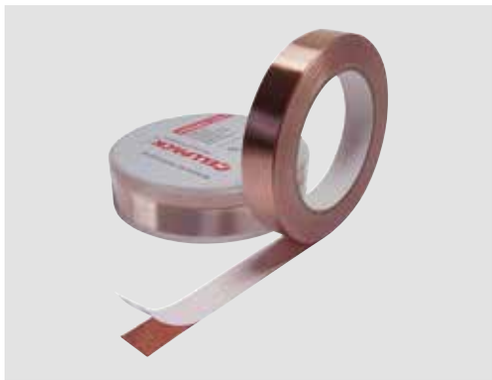
for discharge of electrostatic charge and screening of components

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 components and appliances against electro-magnetic fields

Material
- Copper foil



Scope of delivery
Copper foil

Colours

Copper

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

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 compression 20%)
- General adhesive and fastening tape

Material
- Polyethylene foam



Scope of delivery
Self-adhesive foam tape

Colours

White

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



Scope of delivery
Mastic tape

Colours

Black

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

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



Scope of delivery
Warning tape (Tapes and imprints are available in various colours, see order details.)

Note: Other types available on request.

Colours



Red/White Yellow White

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 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



Scope of delivery
Repair tape

Colours

Black

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 x 10^{13} Ω/cm	ASTM D 257
Dielectric strength	42 kV/mm	ASTM D 149
Heat resistance	-40 °C - 90 °C	

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

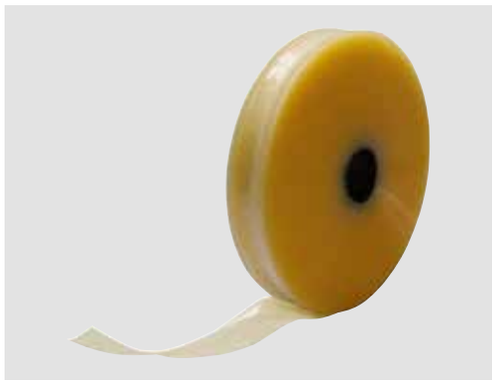
Type		Art.-No.
KRS	1	145911

HB
Hot melt adhesive

for sealing against humidity

Characteristics
- Fusible
- Supplied as tape
- Halogen-free

Application/Suitability
- Waterproof sealing for heat shrinkable products



Scope of delivery
Hot melt adhesive

Colours

Transparent

Type	Colours	Length m	Width mm	Thickness mm	Art.-No.
HB	Transparent	50	25	0.25	130837

ACCESSORIES

 Cable ties 242

 Tools 245

 Chemical products 251



Miscellaneous 263

KS
Cable tie
Standard

Characteristics
- Smooth, rounded edges for safe and easy handling and assembly
- Internal gearing and rounded-off end to facilitate take-up, insertion and tightening
- Resistant to alkaline earth elements
- Resistant to mould and oil
- Stabilized against UV rays (colour: Black)
- Resistant to dilute acids and alkalis
- Halogen-free
- Flame retardant
- Silicone-free

Application/Suitability
- Bundling
- Affixing

Note
- Dimension tolerance ± 5 %

Material
- Polyamid 6.6

Minimum holding force
- Under standard conditions correspond to 1 kg = 9.81 N

Test standards
- EN 62275

Storage conditions/Shelf life
- Ideal storage conditions are at 23 °C and 50 % relative humidity
- After opening the bag, cable ties must be used rapidly



Colours

Black Natural

Scope of delivery
1 PU cable ties

Type		Colours	Width mm	Length mm	min. holding force N	max. bundle-Ø mm	PU pieces	Art.-No.
KS	2.5/100	Black	2.5	100	88	24	100	146408
	2.5/100	Natural	2.5	100	88	24	100	146409
	2.5/135	Black	2.5	135	88	35	100	146453
	2.5/135	Natural	2.5	135	88	35	100	146454
	2.5/200	Black	2.5	200	88	55	100	146412
	2.5/200	Natural	2.5	200	88	55	100	146414
KS	3.5/140	Black	3.5	140	176	36	100	146416
	3.5/140	Natural	3.5	140	176	36	100	146419
	3.5/200	Black	3.5	200	176	55	100	146450
	3.5/200	Natural	3.5	200	176	55	100	146452
	3.5/280	Black	3.5	280	176	80	100	146422
	3.5/280	Natural	3.5	280	176	80	100	146424
KS	4.5/200	Black	4.5	200	216	51	100	146426
	4.5/200	Natural	4.5	200	216	51	100	146428
	4.5/280	Black	4.5	280	216	76	100	146431
	4.5/280	Natural	4.5	280	216	76	100	146433
	4.5/360	Black	4.5	360	216	101	100	146434
	4.5/360	Natural	4.5	360	216	101	100	146435
KS	7.5/300	Black	7.5	300	588	88	100	486001
	7.5/300	Natural	7.5	300	588	88	100	486002
	7.5/360	Black	7.5	360	588	101	100	146438
	7.5/360	Natural	7.5	360	588	101	100	146440
	7.5/750	Black	7.5	750	588	220	100	146442
	7.5/750	Natural	7.5	750	588	220	100	146443
KS	9.0/780	Black	9.0	780	800	235	100	146448
	9.0/780	Natural	9.0	780	800	235	100	146449
KS	12.5/500	Black	12.5	500	1140	140	50	146444
	12.5/500	Natural	12.5	500	1140	140	50	146445
	12.5/1000	Black	12.5	1000	1140	300	50	146446
	12.5/1000	Natural	12.5	1000	1140	300	50	146447

Technical Data	Value
Flammability rating	UL94 V2
Mounting temperature	-5 °C up to +40 °C
Operation temperature	-40 °C up to +85 °C

KZB
Fastening element
for cable ties

Characteristics
- Adhesive film to facilitate installation in hard-to-reach areas
- Resistant to water, cleaning agents and alcohol
- Conditionally resistant to aliphatic and aromatic solvents
- Self-extinguishing

Application/Suitability
- Affixing of cable ties
- Prefabrication or subsequent assembly e.g. of office equipment, lifts, motor vehicles and control cubicles

Material
- Polyamid 6.6

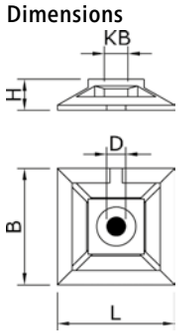


Scope of delivery
1 PU fastening elements

Colours

Natural

Dimensions



KB = max. width of the cable tie

Type		Colours	L mm	B mm	D mm	H mm	KB mm	PU pieces	Art.-No.
KZB2K	4	Natur	19	19	4,75	4,5	4	100	146484
	5	Natur	27	27	4,75	6,0	5	100	146486

CM
Cable marker

for marking cables and conductors

Characteristics
- Can be labelled
- Moisture-resistant
- Oil-resistant
- Stabilized against UV rays

Application/Suitability
- Permanent marking for cables and conductors



Scope of delivery
1 PU cable markers

Type		Length mm	Thickness mm	max. Cable-Ø mm	Label area size height x width mm	PU pieces	Art.-No.
CM	10	75	0.08	13	23 x 25	60	124088
	20	150	0.08	33	23 x 25	30	124089

CPB
Heat shrink torch kit

for installation of heat shrinkable products

Characteristics
- User-friendly rotating tube connector
- Gas supply shuts off automatically if burner head is not installed
- Minimal risk of overheating
- Flame extinguishes immediately upon releasing push button
- Continuously adjustable flame
- Bayonet fitting facilitates substitution of burner head
- Quick-starting piezo ignition

Application/Suitability
- Suitable for heat shrinkable tubes
- Shrinking of heat shrinkable polyolefine products (caps, sleeves etc.)

Caution note
- Warning: Liquid gas is heavier than air. Strictly adhere to safety instructions provided with heat shrink torch kit.



Scope of delivery
Wooden case with aluminium profile with components (see order details)

Note: Individual components may also be ordered separately.

Type		Art.-No.
CPB	5 (Set)	146765
	6 (Set)	146766

Type	CPB 5 Set-components	CPB 6 Set-components	Length m	Content ml	Art.-No.
Handle CPB 5/6 with piezo ignition	•	•			146781
Needle point burner (with elbow)	•	•			146782
Heat shrink burner (with elbow)	•	•			146783
Hot-air torch (with elbow)	•	•			146784
Gas tube HD 4.4 R 3/8" li x R 3/8" li	•	•	4		146769
Anti-rupture device for tubing R 3/8" x 3/8" li	•	•			146770
Pressure controller device R 3/8" x 3/8" li	•	•			146780
Pressure controller DIN/Combo 21.8-14 LH x R 3/8 LH	•				123960
Refill connector for small gas bottle, DIN Combo		•			146786
Small gas bottle, refillable		•		400	146785

• included in scope of delivery

AMX-HPT 310
Mechanical caulking gun
suitable for cartridges up to 310 ml volume

Robust caulking gun in professional quality for usage with automatic cast resin mixing system AMX-C or standard cartridges.



Characteristics
- Sturdy cartridge holder made of sheet steel
- Hardened plunger rod
- Corrosion resistant catch plate made of high-tensile steel
- Low extrusion resistance for precise dosing

Application/Suitability
- Perfect fit for AMX-C265-EGK
- Suitable for standard cartridges
- For low and high viscosity cartridge

Scope of delivery
Caulking gun AMX-HPT 310

Type		Art.-No.
AMX-HPT 310	**Caulking gun**	**311684**

Counter-holder
Assembly help

for screw connectors type CSV and screw cable lugs type CSK

The counter-holder is designed as mounting help for the installation of screw connectors and screw cable lugs with a diameter of 14 to 40 mm.



Scope of delivery
Counter-holder, reduction prism

Type	Art.-No.
Counter-holder	255404

CP-FLM20
Multi tool
for the preparation of medium voltage cables

The multi tool is designed for cutting and stripping of the outer cable sheaths and the conductor insulation, as well as for removal of cold-strippable semi-conductive layers.



Characteristics
- Suitable for cables with a diameter of 15 - 50 mm
- For cold-strippable conducting layer thickness of 0.3/0.4 mm or 0.7/0.8 mm
- Adjustable stop and limiting bar
- Cut depth of the insulation and external sheath up to 10 mm
- Suitable for PVC-/PE-/XLPE-insulation
- Adjustable feed motion

Application/Suitability
- Cutting and stripping of outer sheath
- Controlled initial cutting of cold-strippable semi-conducting layer
- Cutting and stripping of conductor insulation

Scope of delivery
CP-FLM20: Transport case, multi tool, assembly material, manual instruction
CP-FLM20-S1: Replacement blade
CP-FLM20-S2: Spare blade

Type		Art.-No.
CP-FLM20	**Multi tool**	**250351**
CP-FLM20-S1	**Replacement blade (for cable sheath)**	**250355**
CP-FLM20-S2	**Spare blade (for semiconductor-layer)**	**250358**

CP-P20
Stripping tool

for the preparation of medium voltage cables

For removal of the co-extruded outer semi-conductive layer.

Characteristics
- Minimum strip length approx. 30 mm
- Guarantees depth adjustable from 0 - 1.2 mm in 0.1 mm steps
- Maintains high quality of stripped surface
- Hard metal peeling knife
- Operating range 10 - 50 mm
- Predefined rounded corners
- Beginning of stripping at cable end
- Automatic working feed

Application/Suitability
- Cutting and stripping of co-extruded semi-conducting layer



Scope of delivery
CP-P20: Stripping tool, assembly instructions

Type		Art.-No.
CP-P20	**Stripping tool**	**250354**
Spare blade (for semiconductor-layer)		**293710**

CP-AFS
Toolkit

for preparation of medium voltage cables with AFS

The toolkit is suitable for cutting and bending the outer sheath and tightening the stainless-steel cable ties for medium-voltage cables with the aluminium foil screen (AFS) bonded to the outer sheath: RH5Z1, NF C 33-226 (POPY, VINYL, NIKOL), ARE4H5E, ARP1H5E, XDALT



Characteristics
- Adjustable cross-section of the cable sheath cutter: 50 mm², 95-150 mm², 240 mm², 630 mm²
- Cutting depth of the blade for AFS screen and cable sheath 1,8-4 mm

Application/Suitability
- Cutting into the outer sheath
- Folding of the outer sheath
- Tightening the stainless-steel cable tie

Scope of delivery
CP-AFS: Transport case, Cable sheath cutter, Jacket opener (Adapter 150/240 and 630 mm²), Pliers, Working instructions
CP-AFS-S1: Spare blade (for Cable sheath cutter)

Type		Art.-No.
CP-AFS	Toolkit	418122
CP-AFS-S1	Spare blade	418118



UNIVERSAL CLEANER 121

Cleaner

for cleaning and degreasing

Characteristics

- For use with neoprene, polyethylene, EPR, XLPE, PVC, butyl rubber and thermoplastic insulation
- Protection against accidental discharge
- Cleans and degreases without leaving residue, non-conductive
- Fast-acting, safe
- No degradation

Application/Suitability

- Cleaning of semi-conducting layers
- Removal of semi-conductive residues (such as graphite)
- Cleaning and degreasing of motors and electrical equipment
- Cleaning of cables and conductors

Note

- Clean all parts thoroughly. Air dry or wipe with a cloth. Repeat operation as required. Always test a small area prior to cleaning plastics or finished surfaces.



Colours

Clear

Scope of delivery

Cleaner

Type	Content l	Drum	Art.-No.
UNIVERSAL CLEANER 121	0.4	Spray	146404
	1	Canister	124026
	5	Canister	124027

Technical Data	Value
Density	0.62 g/cm³
Vapour pressure (at 20 °C)	200.00 hPa
Flash point	-19 °C
Ignition temperature	260 °C
Lower explosion limit in Vol.-%	1.1
Upper explosion limit in Vol.-%	13.0

ZINC SPRAY 171
Anti-corrosion spray
for subsequent galvanizing

ZINK SPRAY 171 binds to steel and iron surfaces using an electrochemical process of forming a flexible protection film. This gives the parts an active cathodic protection against corrosion.



Characteristics
- Smooth, fine porous film
- With hydrocarbon propellant (flammable)
- Can be varnished
- Can be spot-welded
- Dries quickly
- Unmarked in compliance with ARB material regulations
- No hazard rating in compliance with VBF
- Weatherproof
- Electrically conductive
- Frost-resistant

Application/Suitability
- Long-lasting corrosion protection
- Repairing of damaged zinc layers
- Repairing of galvanised surfaces
- Substitute for red lead primer
- Primer for use in auto repair
- Sealing of cavities
- Cold galvanising
- Oxidation protection
- Rust prevention
- Underbody protection

Colours
Grey

Scope of delivery
Anti-corrosion spray

Type	Content l	Drum	Art.-No.
ZINC SPRAY 171	0.4	Spray	124030

ZINK SPRAY 171 is not approved according to the the food regulations and the construction material norms release 8/76 from the Institute for Construction Technology.

Technical Data	Value
Density	0.95 g/cm³
Degree of zinc purity	99 %

CONTACT CLEANER

Cleaning spray

for cleaning of electro technical equipment

Characteristics
- Does not damage plastic, rubber or varnished surfaces
- Neutral
- Fast evaporating

Application/Suitability
- Removal of light dirt such as dust, fibres, thin oil films, moisture or residues caused by fingerprints
- Cleaning of sensitive electrical equipment



Scope of delivery
Cleaning spray

Colours

Transparent

Type	Content l	Drum	Art.-No.
CONTACT CLEANER	0.4	Spray	124024

Technical Data	Value
Density	0.64 g/cm³
Drying time	15 minutes

PLASTIC
Clear varnish
for insulation and sealing

Characteristics
- Can be soldered through
- Does not drip
- Highly resistant

Application/Suitability
- Sealing
- Elimination or prevention of current leakage, corona discharges, soft short circuits
- Insulation of panel boards, components, wires and cables
- Protective film against pollutants such as acid, alkali, alcohol and moisture
- Sealing of board, wood, leather



Scope of delivery
Clear varnish

Colours

Transparent

Type	Content l	Drum	Art.-No.
PLASTIC	0.4	Spray	124049

Technical Data	Value
Density	0.78 g/cm³
Flash point	-97 °C
Drying time	20 minutes
Dielectric strength	21 kV/mm
Heat resistance	-70 °C up to 120 °C

SILICON
Insulating and lubricating oil spray

water repellent, prevents from flashover

Characteristics
- Does not damage rubber, plastics, textiles or varnished surfaces
- Does not damage construction materials
- Does not dry out
- Non-adherent
- Suitable for use as moisture buffer
- Water-resistant

Application/Suitability
- Elimination or prevention of current leakage, corona discharges, soft short circuits
- Wire feed lubricant
- Insulating
- Protection of high-voltage equipment and tube sockets against flying sparks
- Short-circuit protection
- Can be used as a separating agent for plastics
- Prevents treated components from sticking together



Colours

Transparent

Scope of delivery

Insulating and lubricating oil spray

Type	Content l	Drum	Art.-No.
SILICON	0.4	Spray	124032

Technical Data	Value
Density	0.55 g/cm³
Flash point	-97 °C
Viscosity (cP)	1000/20 °C
Dielectric strength	12 kV/mm
Heat resistance	-50 °C up to 200 °C

CABLE GLISS
Lubricant spray
for feeding cables and conductors

Characteristics
- Does not damage rubber, plastics, textiles or varnished surfaces
- Does not damage construction materials
- Does not dry out
- Non-adherent
- Suitable for use as moisture buffer
- Water-resistant

Application/Suitability
- Feeding of cables and wires through electrical installation conduits



Scope of delivery
Lubricant spray

Colours

Transparent

Type	Content l	Drum	Art.-No.
CABLE GLISS	0,4	Spray	124050
	0,6	Spray	458286

Technical Data	Value
Density	0.63 g/cm³
Viscosity (cP)	1000/20 °C
Dielectric strength	12 kV/mm
Heat resistance	-50 °C up to 200 °C

EASY-GLIDE
Lubricant
for feeding cables and conductors

EASY-GLIDE simplifies and accelerates the pulling and laying of cables and wires in electric conduits and channels. Damage to cables and cable sheaths is prevented.



Characteristics
- Available in light, practical plastic bottle or in handy bucket
- Pleasant smell
- Harmless ingredients
- Biologically degradable
- Non-corrosive
- Superior lubricating properties
- Non-adherent and does not leave stains
- Does not cause skin irritation, easily washable
- Can be used with bare hands
- Non-flammable
- Silicone free

Application/Suitability
- Lubricant for feeding cables and conductors through electrical installation conduits

Scope of delivery
Lubricant

Type		Content l	Drum	Art.-No.
EASY-GLIDE	250 ml	0.25	Plastic bottle	307013
	1050 ml	1.05	Plastic bottle	219647
	5000 ml	5	Bucket	246993

DUSTER
Cleaning spray
for not readily accessible areas

Characteristics
- Self-cleaning
- Newly-developed materials
- With high yield
- Chemically clean
- Evaporates immediately
- Does not corrode materials
- Develops high pressure
- Leaves no traces

Application/Suitability
- Cleaning of areas with limited accessibility
- Proven track record in photo, optic, watch, precision and electronic industries



Scope of delivery
Cleaning spray

Colours

Transparent

Type	Content l	Drum	Art.-No.
DUSTER	0.4	Spray	124051

Technical Data	Value
Density	0.55 g/cm³

MINUS
Cooling spray
for thermal fault diagnosis

Characteristics
- Cools down to -50 °C
- Does not damage construction materials
- Immediate evaporation leaving no residue
- Fast and reliable

Application/Suitability
- Thermal fault detection
- Prevention of overheating during soldering
- Cooling of heat-sensitive components
- Effective overriding of thermal switches and thermostats etc.



Scope of delivery
Cooling spray

Colours

Transparent

Type	Content l	Drum	Art.-No.
MINUS	0.4	Spray	124044

Technical Data	Value
Density	0.55 g/cm³

MULTI
Multi-function oil spray
for protection and cleaning

Characteristics
- For cleaning
- Does not damage rubber, plastics, textiles or varnished surfaces
- Dissolves rust
- Protects and lubricates
- Eliminates squeaking
- Water-repellent

Application/Suitability
- Hobbies/home/garden
- Industry and workshops
- Start-up aid for wet motors



Scope of delivery
Multi-function oil spray

Colours

Light brown

Type	Content l	Drum	Art.-No.
MULTI	0.4	Spray	124043

Technical Data	Value
Density	0.78 g/cm³
Viscosity (cP)	30/40 °C

Silicone grease
Lubricating grease
for lubrication/greasing

Characteristics
- Glides well
- Non-toxic

Application/Suitability
- Lubricant paste

Scope of delivery
Lubricating grease, Wrench, Nozzle



Colours

Transparent

Type		Content g	Art.-No.
Silicone grease	90	90	124055

EASY-CLEAN
Hand wipes
for universal cleaning

Most effective cleaning effect is achieved with the aid of the combination of patented liquid formula and endurable, roughened cloth surface. This enables removing of heavy fat stains, tar, oil, copper paste, brake and coal dust, varnish and paints, inks, grass stains and many other stains.



Characteristics
- Heavy-duty one-step cleaning system
- Easily removes even the toughest stains
- Retains dirt without leaving traces
- Quick-drying cleaning solution with moisturising effect
- Biodegradable wipes
- Antibacterial
- Free from harmful substances
- Non-toxic
- Non-irritant
- Contains moisturising substances

Application/Suitability
- In order to remove ingrained dirt, apply the darker side of the cloth. Let it soak in, then rub off. If the stain has not come out, let it soak longer.
- Remove most of the dirt using the darker textured side of the cloth, then polish with the soft side to achieve a completely clean residue-free finish.
- Skin may feel slightly sticky after use due to moisturising emulsion, as absorption time varies according to skin types.

Storage conditions/Shelf life
- Unlimited shelf life



Scope of delivery
Hand wipes

Note: The hand cleaning wipes are packed individually In the sales display.

Type		Content pieces	Art.-No.
EASY-CLEAN	Pail 90	90	434109
	Tin 18	18	435266
	Sales display 40	40	434133

LG
Putty/sealing compound

for sealing of wall ducts

Characteristics
- Two-component PUR cast resin
- In practical and easy-to-use two-chamber bags
- Mechanically removable
- Halogen-free
- Not harmful to the environment
- Gas-tight and waterproof up to 1.5 bar
- Flexible after hardening
- Superior adhesion to metal, plastics (PVC, XLPE and PE), concrete, artificial and natural stone
- Superior thermodynamic properties

Application/Suitability
- Outdoor
- Indoor
- Underground
- Water
- Sealing of wall ducts

Storage conditions/Shelf life
- In aluminium bag 18 months at ambient temperatures between 15 °C and 35 °C



Scope of delivery
Putty/sealing compound, spatula, assembly instructions

Optional accessory: Cable centring aid KZ (see Accessories)
Cleaner UNIVERSAL CLEANER 121 (see Accessories)
Note: Other sizes available on request.

Type		Content ml	Art.-No.
LG	250	250	125198
	500	500	125199

Technical Data	Value
Density	1.10 g/cm³
Hardness	80 Shore A
Reactant Flash point in open cup min.	200 °C
Cast resin component Flash point in open cup min.	200 °C
Reaction temperature	60 °C
Processing time (pot life) 250 ml mixture 20 °C 35 °C	 15 minutes 9 minutes

KZ
Cable centring aid

for putty/sealing compound, reduces the required volume

Characteristics
- Flexible
- Individually adjustable

Application/Suitability
- Centring of cables in wall ducts

Material
- Polyethylene foam



Scope of delivery
Cable centring aid

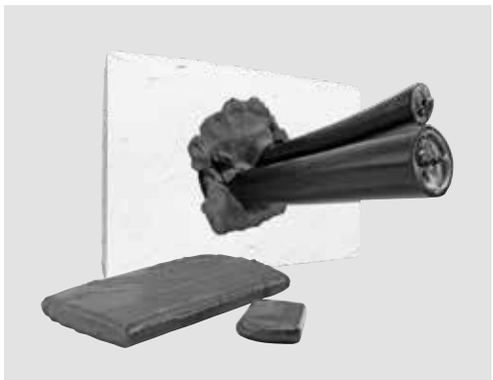
Type		Length m	Thickness mm	Art.-No.
KZ	20	1	20	143490
	30	1	30	143491
	40	1	40	143492

DUCT SEAL
Universal sealing compound
based on butyl rubber

Characteristics
- Firm consistency, good shape retention, can be easily moulded
- Excellent adhesion to almost all materials (metal, concrete, stone, wood, glass, ceramic, enamel etc.)
- Plastic viscosity
- Superior ageing resistance
- High resistance to many gases
- High resistance to many condensates
- Stabilized against UV rays
- Halogen-free
- Not harmful to the environment
- High water resistance
- Easy processing

Application/Suitability
- Sealing of wall ducts, cable ducts, electrical devices, drains and sanitary installations

Storage conditions/Shelf life
- Unlimited shelf life



Colours

Grey

Scope of delivery
Universal sealing compound

Optional accessory: Cleaner UNIVERSAL CLEANER 121 (see Accessories)

Type		Art.-No.
DUCT SEAL	0.454 kg	240358
	2.5 kg	240357

Technical Data	Value
Short-term heat resistance	120 °C
Long-term heat resistance	
min.	-40 °C
max.	100 °C

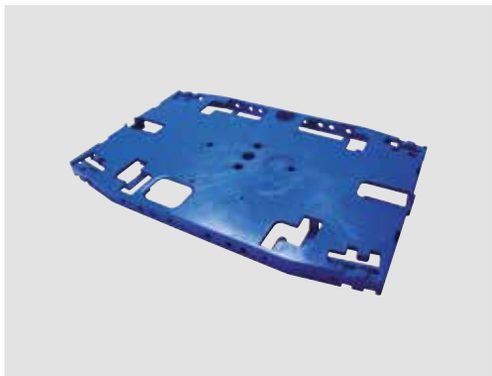
LW..., LZW..., LWH..., LHS
Splice cassette system
for fibre optic cables

Characteristics
- Flange mount strain relief for fibre optic cables
- Insertion opening for up to max. 12 glass fibres
- Flame-retardant plastic housing
- All current splice holders are interlockable (with anti-rotation protection)
- Easy attachment of stranded conductors
- Counter support bracket for easy insertion of glass fibres
- The conductors can be easily redirected to other levels
- Halogen-free
- Mechanical strain relief

Application/Suitability
- Where high performance fibre optic cabling and connections are required
- Compact joints
- Coupler housing for joints or trays
- Mechanical protection for spliced optical fibres
- Drawer application (modular compartments), choice of stress relief bushing for easy assembly of pigtail
- Vertical compartments for multifunctionality and flexibility

Note
- Recommended operating temperature range of -55 to +70 °C

Material
- Ethyl vinyl acetate insert
- Flexible heat shrinkable tube
- Stainless steel bar



Colours

Blue Transparent

Scope of delivery
1 PU

Type		Colours	PU pieces	Art.-No.
LWK	Splice cassette	Blue	25	146694
LWD	Cover	Transparent	25	126505
Strain reliefs				
LZW-L	Strain relief left	Blue	25	126497
Splice holders				
LWH-S	Splice holder shrink protection	Transparent	25	126506
LWH-L	Splice holder 6 x shrink	Transparent	25	126499
Splice protection				
LHS	Shrink splice protection	Transparent	50	146706

AZK
Branch clamp

for sealing of multiple cable entry points

Characteristics
- With hot melt adhesive
- Dimensionally stable

Application/Suitability
- Sealing of multiple cable entry points in heat shrinkable repair sleeves and tubes



Scope of delivery
Branch clamp

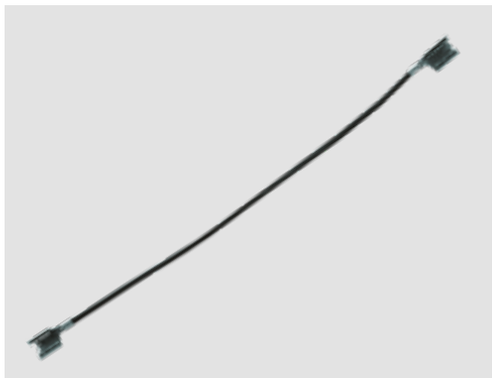
Type		Length mm	Width mm	Art.-No.
AZK	small	64	28	123982
	big	110	60	143744

SVL
Shield continuity wire

for telecommunication cables

Characteristics
- High flexibility

Application/Suitability
- Connection and branching of aluminium-clad cable sheath
- For two or more telecommunication cables



Scope of delivery
Shield continuity wire

Type		Length mm	Conductor cross-section mm^2	Art.-No.
SVL	230	230	2,5	143314
	300	300	2,5	143318
	350	350	2,5	143319
	400	400	2,5	143320
	500	500	2,5	143321

ZS-PSA (G+H+3Pb)
Disposable additional set

for preparing mass-impregnated paper cables

The disposable additional set ZS-PSA (G+H+3Pb) / personal protective equipment helps installer to avoid direct contact with the hazardous substances (CMR substances) when preparing paper-insulated cable variants: Belted-, H-Type-, 3Pb (lead-sheath) cables. This kit can also be used for the preparation of the low voltage paper insulated cables as the harmful layers are identical in the preparation.



Characteristics
- Easy assembly

Application/Suitability
- For Low- and medium voltage paper insulated cables

Scope of delivery
1-piece disposable flame protective boilersuit, 1 pair disposable protective gloves with long cuff, 1-piece disposable particulate respirator with exhalation valve, 1 pair disposable overboot, and 1 piece garbage bag.

Type	Art.-No.
ZS PSA/(G+H+3Pb)	447993

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