

Cable connection solutions



Industry-leading electrical solutions

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

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

OUR JOURNEY

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

OUR COMMITMENT

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

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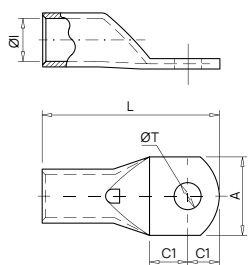




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COPPER CONNECTORS



10101 T
Copper cable lug

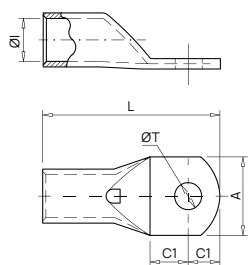
T cable lug manufactured from electrolytic copper tubing with a tin-plated surface finish to improve electrical contact. Incorporates inspection hole to check the correct cable positioning.

According to IEC 61238-1-1 standard.



Code	Ref.	Section (mm ²)		Dimensions (mm)						x 100		
				ØI	L	ØT	A	C1	C2			
010100	T-1,5/4	1.5	4	1.8	18.0	4.3	8.7	5.0	4.0	0.074	100	3000
010110	T-1,5/5		5		18.5	5.3	8.7	5.0	4.5	0.071	100	3000
010120	T-1,5/6		6		20.0	6.4	11.0	6.0	5.0	0.081	100	2000
010130	T-2,5/4	2.5	4	2.7	18.0	4.3	8.7	5.0	4.0	0.111	100	2000
010140	T-2,5/5		5		19.0	5.3	8.7	5.5	4.5	0.112	100	2000
010150	T-2,5/6		6		20.0	6.4	9.0	6.0	5.0	0.110	100	1800
010160	T-2,5/8	4	8	3.3	24.0	8.3	12.0	8.0	7.0	0.128	100	1800
010170	T-4/4		4		21.0	4.3	8.7	5.0	4.5	0.168	100	1600
010180	T-4/5		5		21.0	5.3	8.7	5.0	4.5	0.163	100	1600
010190	T-4/6	6	6	3.8	23.0	6.4	11.0	6.0	5.5	0.171	100	1600
010200	T-4/8		8		26.5	8.3	14.0	8.0	7.0	0.179	100	1200
010210	T-6/4		4		23.0	4.3	10.3	6.0	5.0	0.204	100	1600
010220	T-6/5	10	5	4.7	23.0	5.3	10.3	6.0	5.0	0.202	100	1500
010230	T-6/6		6		24.0	6.4	10.3	6.0	5.5	0.200	100	1500
010240	T-6/8		8		27.0	8.3	14.0	8.0	7.0	0.208	100	1300
010260	T-10/5	16	5	5.6	25.5	5.3	11.9	6.0	5.5	0.364	100	1000
010270	T-10/6		6		27.0	6.4	11.9	7.0	6.0	0.361	100	1000
010280	T-10/8		8		30.0	8.3	15.0	8.0	8.0	0.388	100	800
010290	T-10/10	25	10	7.1	34.0	10.5	18.0	10.5	9.5	0.414	100	600
010310	T-16/5		5		26.5	5.3	11.9	6.0	5.0	0.465	100	700
010320	T-16/6		6		28.5	6.4	11.9	7.0	6.0	0.489	100	700
010330	T-16/8	35	8	8.7	31.0	8.3	15.0	8.0	7.5	0.500	100	600
010340	T-16/10		10		34.5	10.5	18.0	10.0	9.0	0.524	100	500
010350	T-16/12		12		38.5	13.0	20.0	12.0	11.0	0.552	100	500
010360	T-25/6	50	6	9.8	31.0	6.4	13.8	7.0	6.0	0.700	50	450
010370	T-25/8		8		34.0	8.3	15.0	8.5	7.5	0.742	50	450
010380	T-25/10		10		39.0	10.5	18.0	11.0	10.0	0.811	50	400
010390	T-25/12	100	12	11.0	41.0	13.0	21.0	12.0	11.0	0.793	50	300
010410	T-35/6		6		34.0	6.4	15.7	7.0	6.0	1.081	50	300
010420	T-35/8		8		38.0	8.3	15.7	9.0	8.0	1.165	50	300
010430	T-35/10	150	10	12.2	42.0	10.5	19.0	11.0	10.0	1.221	50	200
010440	T-35/12		12		44.0	13.0	21.0	12.0	11.0	1.231	50	200
010450	T-35/14		14		48.0	14.5	21.0	14.0	13.0	1.315	50	200
010500	T-50/6	200	6	14.0	41.0	6.4	17.9	8.0	7.0	1.570	20	200
010510	T-50/8		8		43.0	8.3	17.9	9.0	8.0	1.591	20	180
010520	T-50/10		10		47.0	10.5	20.0	11.0	10.0	1.706	20	160
010530	T-50/12	300	12	15.0	51.0	13.0	21.0	13.0	12.0	1.746	20	160
010540	T-50/14		14		53.0	14.5	25.0	14.0	13.0	1.793	20	140
010550	T-50/16		16		55.0	16.5	26.0	15.0	14.0	1.771	20	140

COPPER CONNECTORS



10101 T
Copper cable lug

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

According to IEC 61238-1-1 standard.

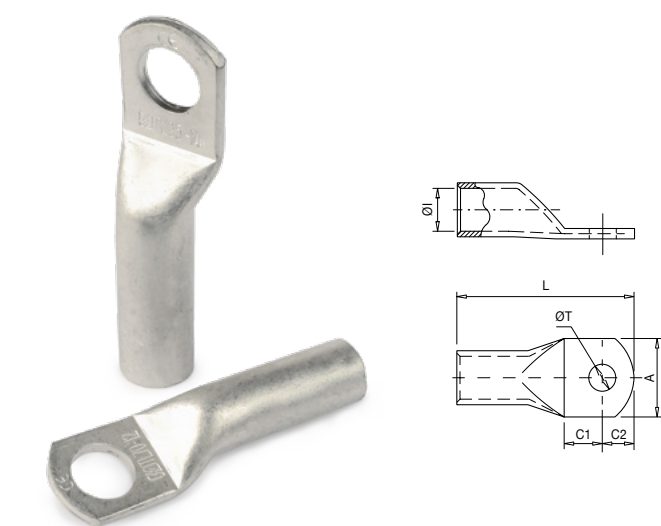


Code	Ref.	Section (mm ²)		Dimensions (mm)						x 100		
				ØI	L	ØT	A	C1	C2			
010570	T-70/8	70	8	11.5	47.0	8.3	21.5	9.0	8.0	2.385	20	120
010580	T-70/10		10		51.0	10.5	21.5	11.0	10.0	2.510	20	120
010590	T-70/12		12		53.0	13.0	21.5	12.0	11.0	2.504	20	120
010600	T-70/14		14		58.0	14.5	25.0	15.0	13.0	2.698	20	100
010610	T-70/16		16		59.0	16.5	26.0	15.0	14.0	2.617	20	100
010630	T-95/8	95	8	13.5	52.0	8.3	24.7	10.0	9.0	3.354	20	80
010640	T-95/10		10		55.0	10.5	24.7	11.0	11.0	3.387	20	80
010650	T-95/12		12		57.0	13.0	24.7	12.0	12.0	3.468	20	80
010660	T-95/14		14		61.0	14.5	24.7	15.0	13.0	3.622	20	80
010670	T-95/16		16		64.0	16.5	27.0	16.0	15.0	3.690	20	80
010690	T-120/8	120	8	15.6	56.0	8.3	28.9	10.0	9.0	5.357	10	60
010700	T-120/10		10		58.0	10.5	28.9	11.0	10.0	5.452	10	60
010710	T-120/12		12		63.0	13.0	28.9	14.0	12.0	5.800	10	60
010720	T-120/14		14		67.0	14.5	28.9	16.0	14.0	6.068	10	60
010730	T-120/16		16		71.0	16.5	28.9	17.0	16.0	6.296	10	60
010750	T-150/10	150	10	16.5	69.0	10.5	30.4	13.0	11.0	7.125	10	50
010760	T-150/12		12		75.0	13.0	30.4	16.0	14.0	7.749	10	50
010770	T-150/14		14		79.0	14.5	30.4	18.0	16.0	7.891	10	50
010780	T-150/16		16		79.0	16.5	30.4	18.0	16.0	7.694	10	40
010800	T-185/10	185	10	18.8	74.0	10.5	34.0	13.0	11.0	9.842	10	40
010810	T-185/12		12		80.0	13.0	34.0	16.0	14.0	10.447	10	40
010820	T-185/14		14		84.0	14.5	34.0	18.0	16.0	10.991	10	40
010830	T-185/16		16		85.0	16.5	34.0	18.0	17.0	10.831	10	40
010850	T-240/10	240	10	21.2	82.0	10.5	38.4	14.0	12.0	12.466	5	25
010860	T-240/12		12		86.0	13.0	38.4	16.0	14.0	12.916	5	25
010870	T-240/14		14		90.0	14.5	38.4	18.0	16.0	13.352	5	25
010880	T-240/16		16		91.0	16.5	38.4	18.0	17.0	13.198	5	25
010900	T-300/12	300	12	23.4	93.0	13.0	41.7	16.0	14.0	15.780	5	15
010910	T-300/14		14		94.0	14.5	41.7	16.0	15.0	17.249	5	15
010920	T-300/16		16		100.0	16.5	41.7	19.0	18.0	18.161	5	15
010940	T-400/12*	400	12		110.0	13.0	47.8	21.0	19.0	24.560	5	10
010950	T-400/16*		16		110.0	16.5	47.8	21.0	19.0	24.246	5	10
010960	T-400/20*		20		116.0	21.0	47.8	24.0	22.0	25.010	5	10
010980	T-500/16*	500	16	29.8	115.0	16.5	54.8	22.0	19.0	42.990	1	9
010985	T-500/20*		20		120.0	21.0	54.8	24.0	22.0	46.702	1	9
010988	T-630/16*	630	16	34.5	128.0	16.5	64.4	22.0	19.0	66.260	1	5
010990	T-630/20*		20		134.0	21.0	64.4	24.0	23.0	68.680	1	5

* Not according to UL certified.

COPPER CONNECTORS

COPPER CONNECTORS

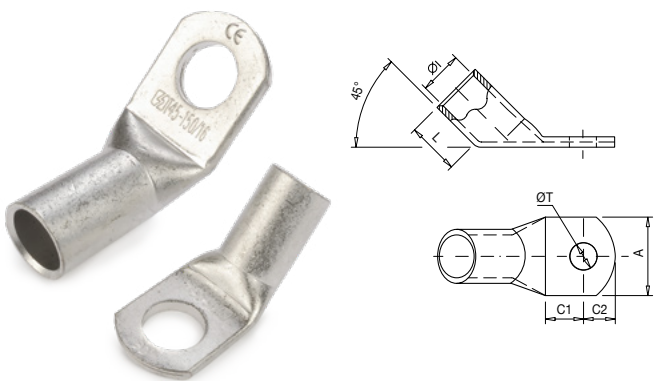


10102 TL
Copper cable lug long barrel

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

According to IEC 61238-1-1 standard.

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



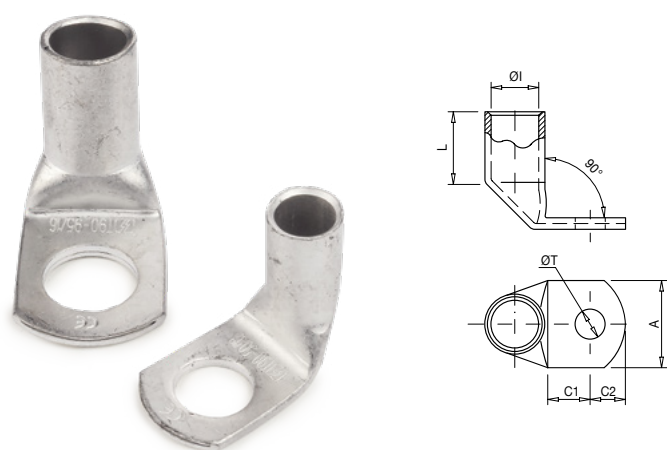
10103 T45°
Copper cable lug 45°

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

According to IEC 61238-1-1 standard.

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

COPPER CONNECTORS



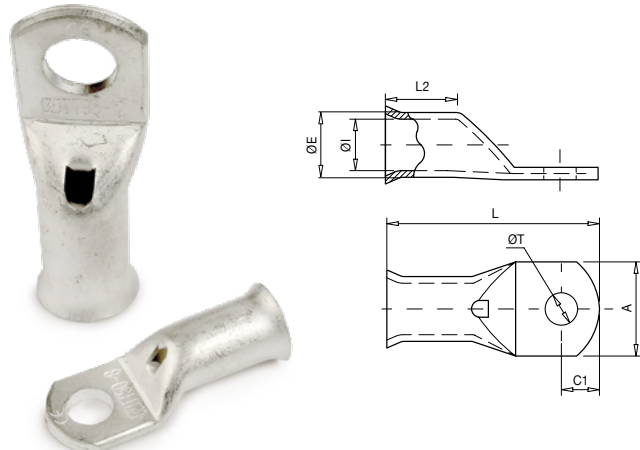
10104 T90°
Copper cable lug 90°

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

According to IEC 61238-1-1 standard.

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

COPPER CONNECTORS



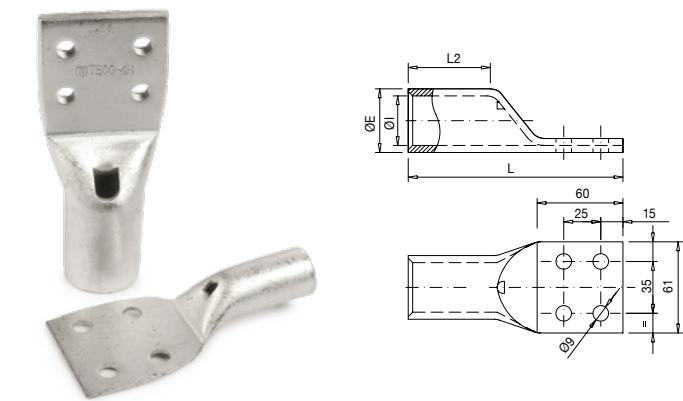
10105 TT
NF C20-130 Tulip copper cable lug

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

According to NF C20-130 standard.

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

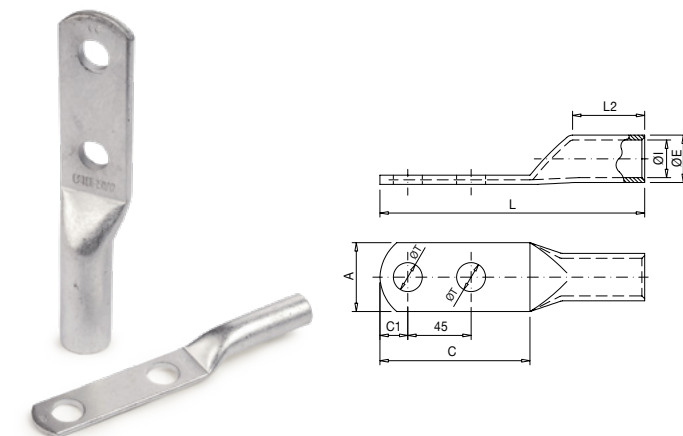
COPPER CONNECTORS



10106 T4H
Copper cable lug with 4 holes palm

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

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

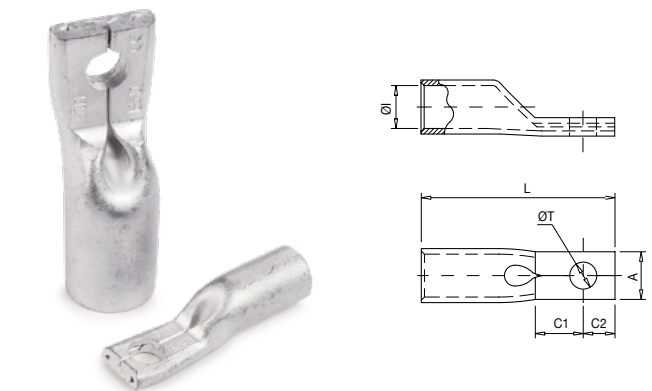


10107 TDT
Copper cable lug with 2 holes palm

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

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

COPPER CONNECTORS



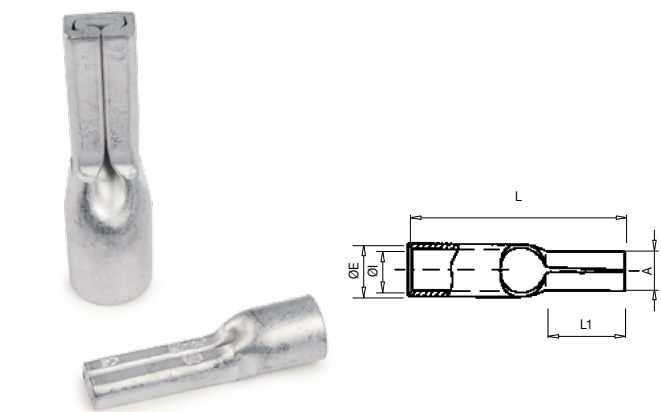
10108 TPE
Copper cable lug narrow palm

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

According to IEC 61238-1-1 standard.

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

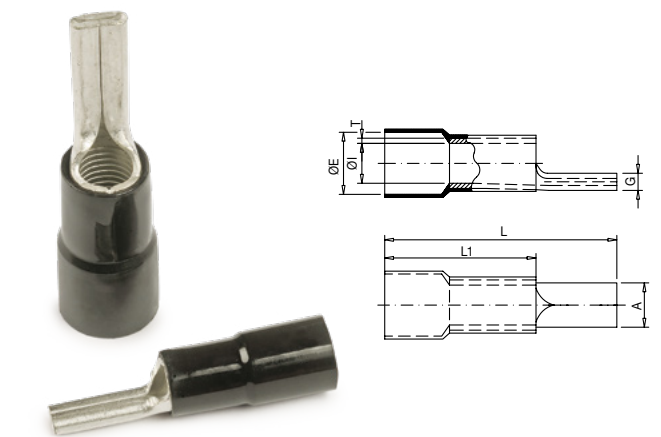
COPPER CONNECTORS



10109 CP
Pin terminal

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

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



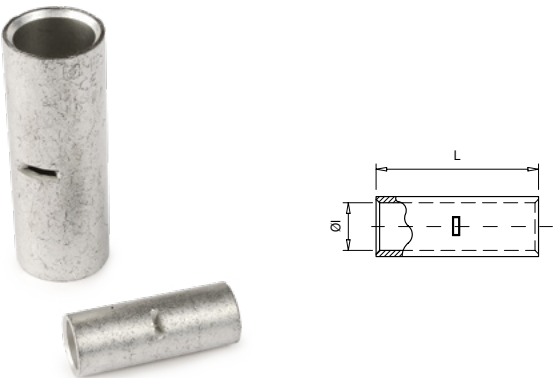
10109 CPP
Connection tip isolated

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



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

COPPER CONNECTORS

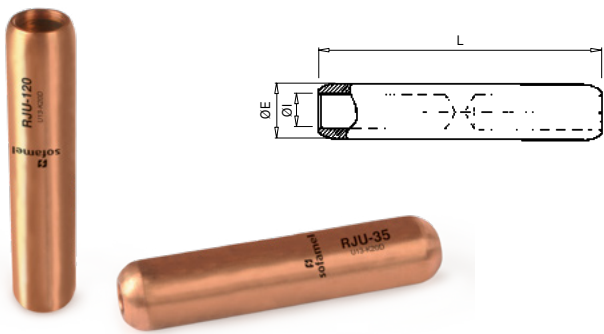


10110 M
Copper butt-connector

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

According to IEC 61238-1-1 standard.

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

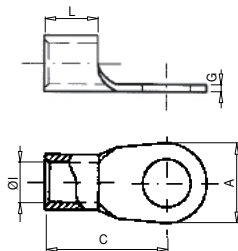


10111 RJU
Medium voltage copper join

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

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

COPPER CONNECTORS



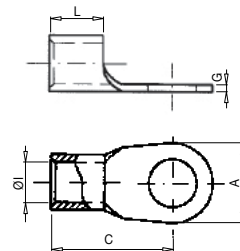
10112 TD
Welded copper cable lug

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

According to DIN 46234 Standard.

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

COPPER CONNECTORS



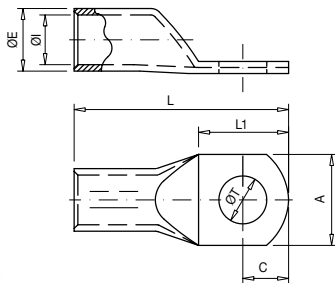
10112 TD
Welded copper cable lug

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

According to DIN 46234 Standard.

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

COPPER CONNECTORS



10113 TCD
DIN 46235 copper cable lug

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

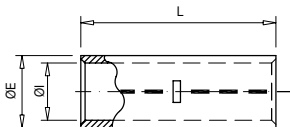
According to DIN 46235.



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

*Not according to UL certified.

COPPER CONNECTORS



10114 MCD
DIN 46267 copper butt-connector

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

According to DIN 46267.

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

SHEAR HEAD BOLT CONNECTORS

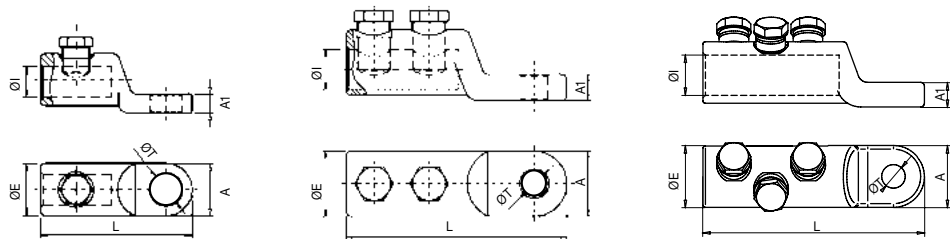
SHEAR HEAD BOLT CONNECTORS



10201 TTG
Shear head bolt cable lug

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

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

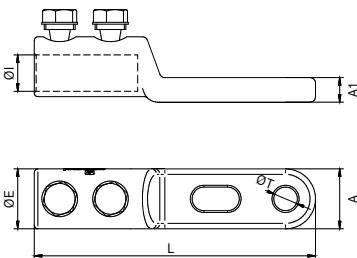


Code	Ref.	Section (mm²)		Strip length			Dimensions (mm)								
							ØE	ØI	L	ØT	A	A1			
101102	TTG-16/50/8	16 to 50	1	35	1 x M12	12	22	10	64	9	22	8	4.500	1	100
101103	TTG-16/50/10						22	10	64	11	22	8	4.300	1	100
101104	TTG-16/50/12						22	10	64	13	22	8	4.300	1	100
101105	TTG-50/8*	25 to 50	1	35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



10201 TTG2
Shear head bolt cable lug

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

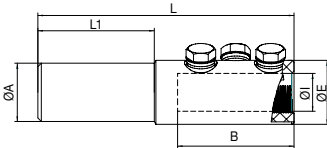


Code	Ref.	Section (mm²)		Strip length			Dimensions (mm)								
							ØE	ØI	L	ØT	A	A1			
101180	TTG/2-240/10	95 to 240	2	60	2 x M17	17	33	20	155	11	33	13.5	22.300	1	-
101185	TTG/2-240/12						33	20	155	13	33	13.5	21.700	1	-

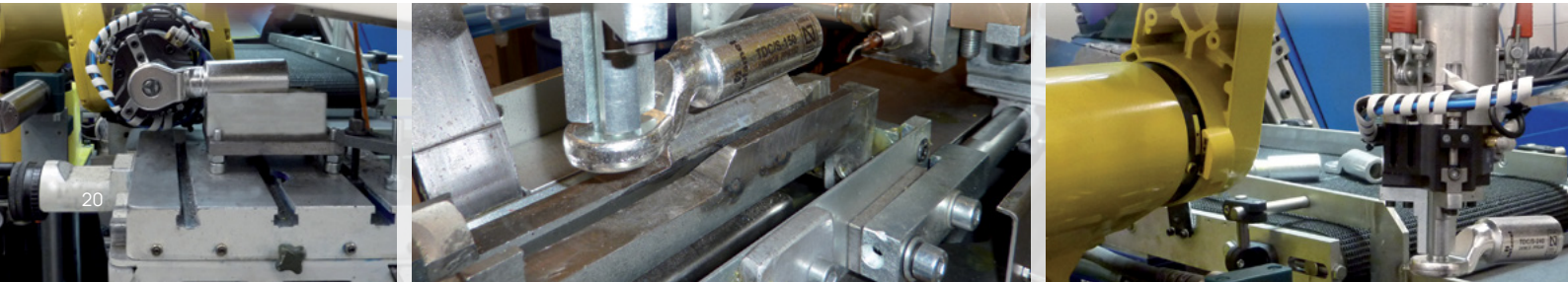


10202 BTF
Bimetallic cable lug

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



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



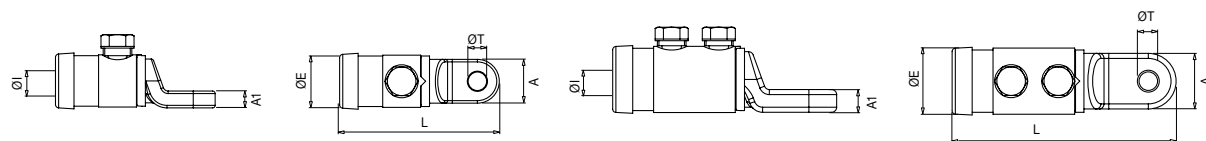
SHEAR HEAD BOLT CONNECTORS



10203 TTGA
Insulated terminals with shear head bolts

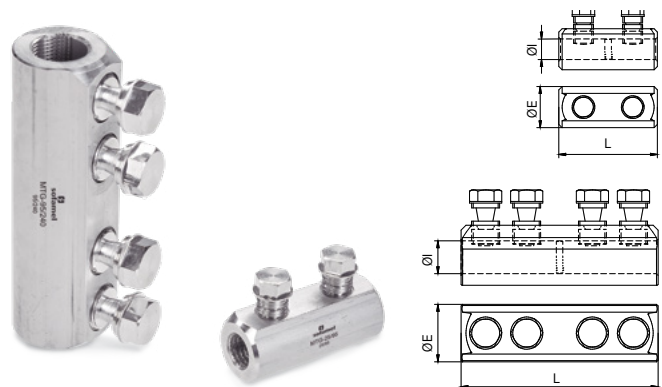
TTGA cable lugs are manufactured from high-conductivity cast aluminium with a finish covering the complete cable lug surface using a tinplating process. They feature an insulated cover and different-coloured bands to differentiate between phases: black, brown and grey and neutral in blue.

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



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

SHEAR HEAD BOLT CONNECTORS

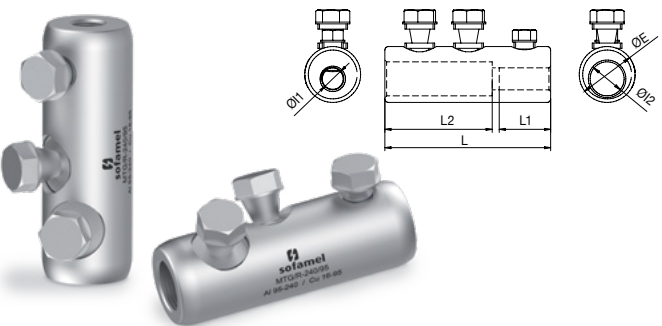


10202 MTG
Shear head bolt connector

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

According to UNE 211024-3 standard.

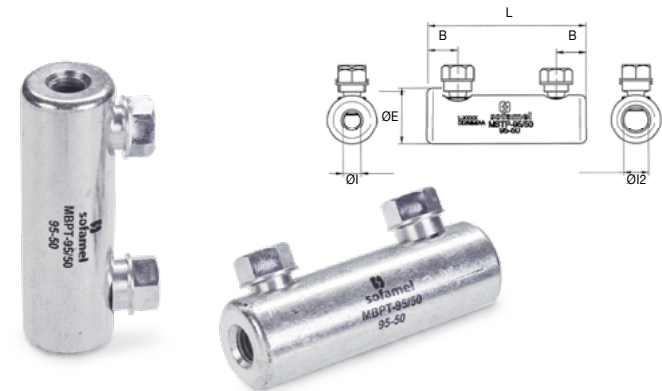
Code	Ref.	Section		Dimensions (mm)			Kg x 100	Bag	Box
				ØE	ØI	L			
101204	MTG-25/95	25 to 95	2	25	12.5	60	9.000	1	-
101200	MTG-95/240	95 to 240	4	35	20	120	21.800	1	40
101201	MTG-240/400	240 to 400	6	42	26	170	60.180	1	-
101202	MTG-500/630	500 to 630	6	52	33	200	88.810	1	-
101203	MTG-630/1000	630 to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



10202 MTG/R
Shear head bolt connector reducer

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

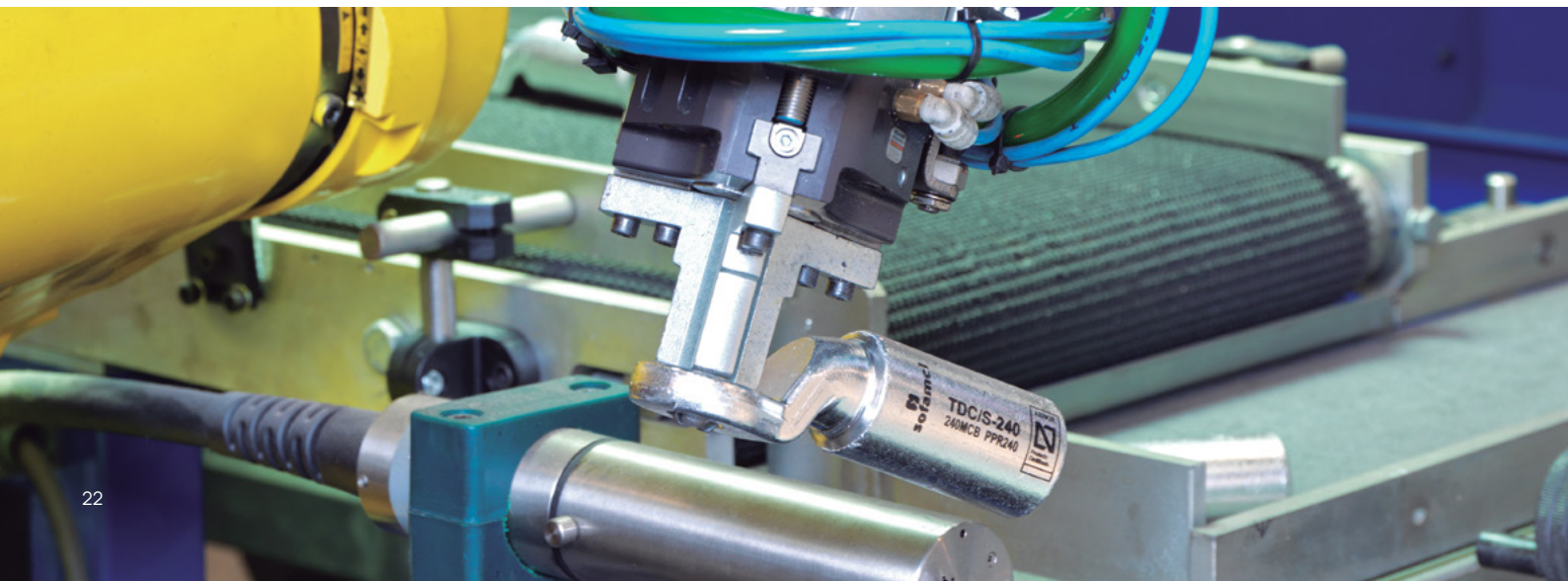
Code	Ref.	Section		Dimensions (mm)						Kg x 100	Bag	Box
		S1	S2	ØE	ØI1	ØI2	L	L1	L2			
101230	MTG/R-240/95	95-240	16-95	35	12.5	20	100	31	66	22.500	1	75



10202 MBPT-95/50
Shear head bolt connector

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

Code	Ref.	Section		Dimensions (mm)					Kg x 100	Bag	Box
		A1	A1	ØE	ØI1	ØI2	L	B			
101210	MBPT-95/50	95	50	25	9	12.6	80	15	10.300	1	75



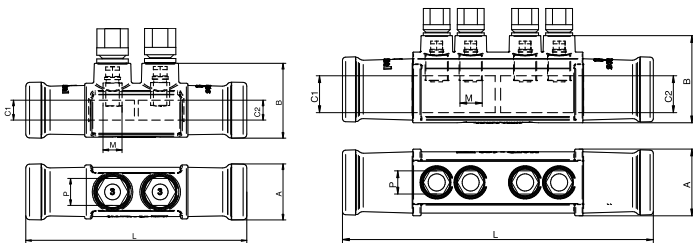
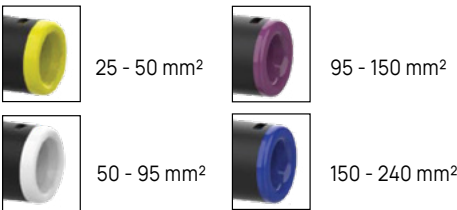
SHEAR HEAD BOLT CONNECTORS



10204 MTSA
Insulated shear head bolt connector

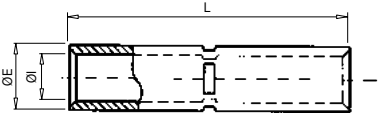
Joint sleeve fuse for aluminium connection of sections ranging from 25 to 240 mm². Recommended for underground networks. Installation through torque using insulated fuse connectors. Sleeve in high-resistance aluminium alloy. Fitted with insulating cover and sealing ring at the ends.

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



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

ALUMINIUM CONNECTORS

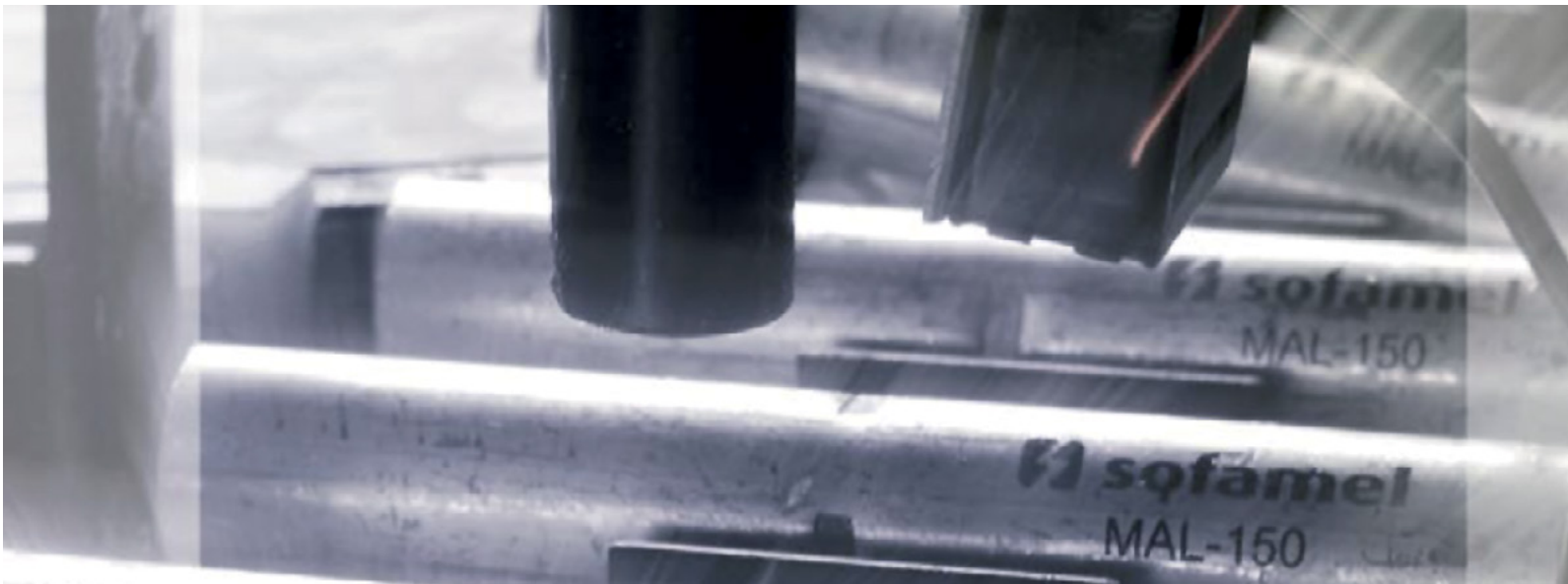


10301 MAL
Aluminium butt-connector

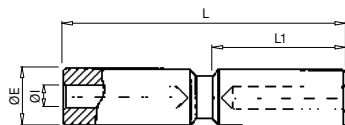
MAL butt-connector manufactured from aluminium alloy tube of purity equal or higher than 99.5%. Incorporates a central buffer stop which divides the connector in two equal parts. Both holes contain neutral grease to avoid aluminium oxidation.

For overhead cable

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



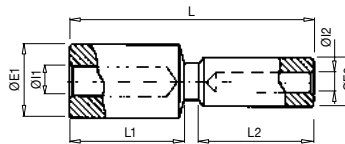
ALUMINIUM CONNECTORS



10302 BT
Aluminium joint

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

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



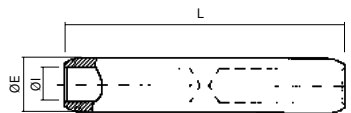
10303 RBT
Reducer aluminium joint

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

Code	Ref.	Section Al. (mm²)		Dimensions (mm)							Kg x 100	Bag	Box
		1	2	ØE1	ØI1	ØE2	ØI2	L	L1	L2			
090100	RBT-50/25	50	25	20.0	9.0	20.0	6.5	100.0	47.5	47.5	7.000	1	125
090110	RBT-95/50	95	50	20.0	12.5	20.0	9.0	100.0	47.5	47.5	5.000	1	125
090120	RBT-150/50	150	50	25.0	15.5	20.0	9.0	118.5	64.0	47.5	9.000	1	75
090130	RBT-150/95	150	95	25.0	15.5	20.0	12.5	118.5	64.0	47.5	8.800	1	75
090140	RBT-240/95	240	95	32.0	19.5	20.0	12.5	118.5	64.0	47.5	13.600	1	50
090150	RBT-240/150	240	150	32.0	19.5	25.0	15.5	135.0	64.0	64.0	16.000	1	50

* Consult for other reducers.

ALUMINIUM CONNECTORS



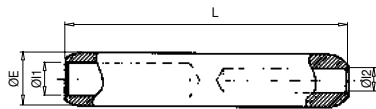
10304 RJ1A
Aluminium joint

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

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



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



10305 RJ2A
Reducer aluminium joint

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

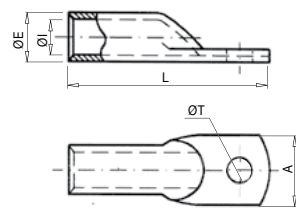
They are used for Al-Al or Al-Cu connections, ensuring that the aluminum conductor is always larger and the copper conductor is smaller. It is essential to properly seal any possible entry points for external agents to prevent oxidation.

Code	Ref.	Section Al. (mm²)		Dimensions (mm)				Kg x 100	Bag	Box
		1	2	ØE	ØI1	ØI2	L			
100100	RJ1A-50/25	50	25	20	9.0	6.5	106.5	7.450	1	125
100140	RJ1A-95/50	95	50	20	12.5	9.0	106.5	6.340	1	125
100150	RJ2A-150/50	150	50	25	15.5	9.0	133.0	11.880	1	90
100160	RJ2A-150/95	150	95	25	15.5	12.5	133.0	10.900	1	90
100165	RJ4A-240/50	240	50	32	19.5	9.0	143.5	21.030	1	50
100170	RJ4A-240/95	240	95	32	19.5	12.5	143.5	20.080	1	50
100180	RJ4A-240/150	240	150	32	19.5	15.5	143.5	19.010	1	50

* Consult for other sizes.

BIMETALLIC CONNECTORS

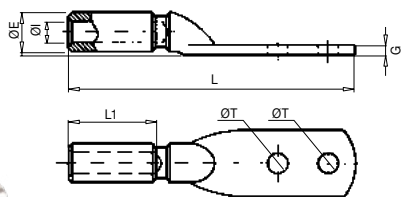
BIMETALLIC CONNECTORS



10401 TBE
Tinned aluminium cable lug

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

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



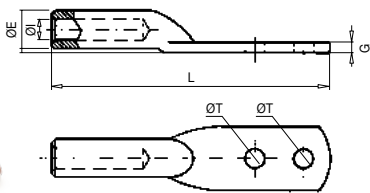
10402 TBEM/S
Tinned bimetallic cable lug

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

Underground cables

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

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



10402 TBEM/A
Tinned bimetallic cable lug

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

Overhead cables

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

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



10402 Screw kit

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

BIMETALLIC CONNECTORS



10403 TDC/S
Bimetallic cable lug

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

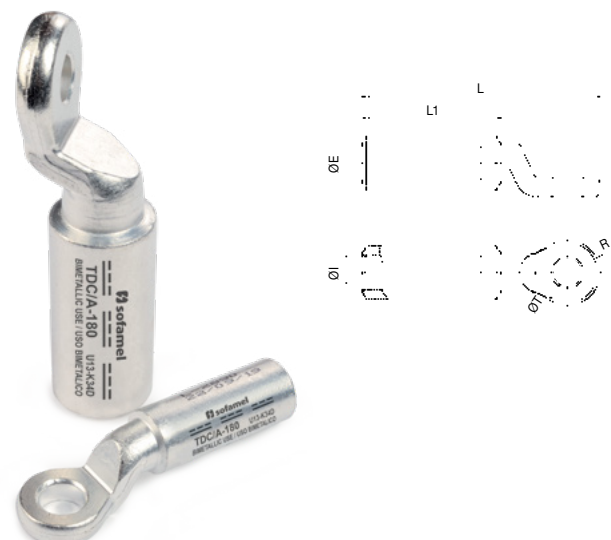


According to UNE 211024-2 standard.
Have  AENOR certified mark.*

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

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

BIMETALLIC CONNECTORS



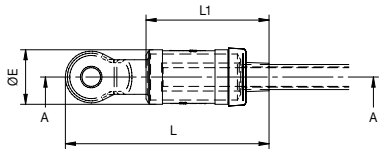
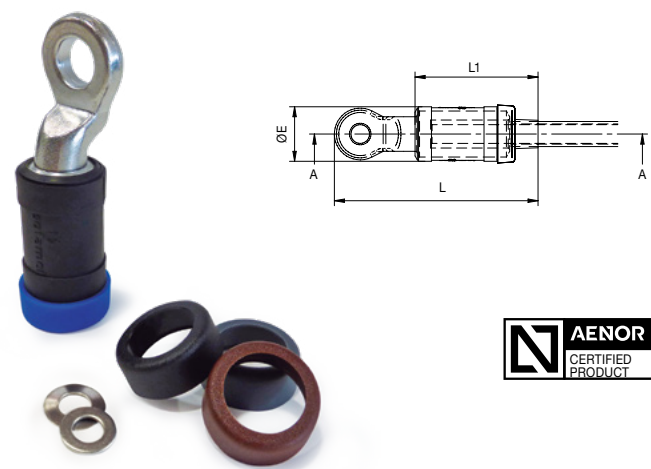
10403 TDC/A
Bimetallic cable lug

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

For overhead cable

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

BIMETALLIC CONNECTORS



10404 TDC/S KIT
Insulated bimetallic terminals

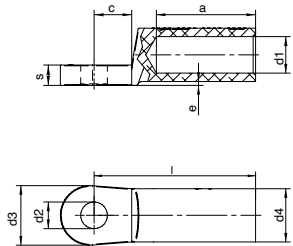
The kit consists of:

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



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

BIMETALLIC CONNECTORS



10412 TBE/D
DIN 46329 tinned aluminium cable lug

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

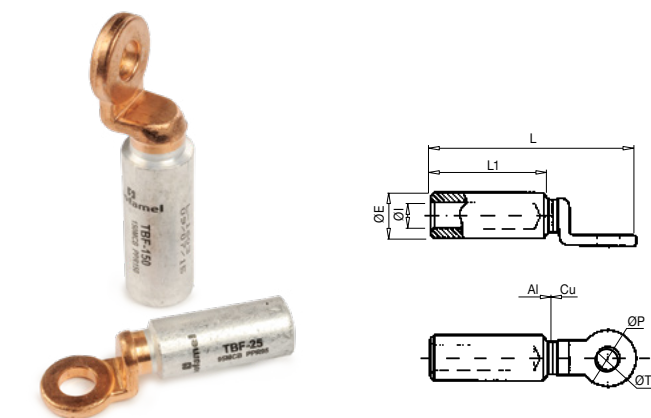
According to DIN 46329.

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

* Not according to DIN 46329

BIMETALLIC CONNECTORS

BIMETALLIC CONNECTORS

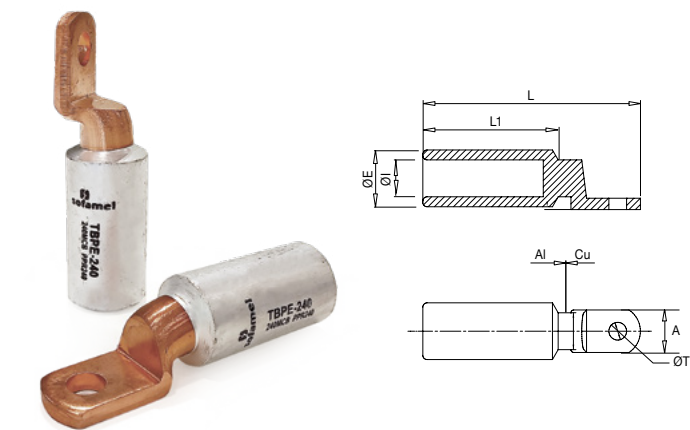


10405 TBF
Bimetallic cable lug

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

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

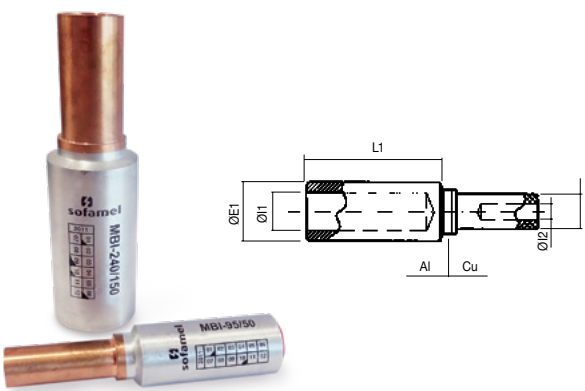
Code	Ref.	Section (mm²)	Dimensions (mm)						x 100		
			ØE	ØI	L1	L	ØT	ØP			
110100	TBF-16	16	20.0	5.5	47.5	86.0	12.8	25.0	7.600	1	125
110110	TBF-25	25	20.0	6.5	47.5	86.0	12.8	25.0	7.200	1	125
110120	TBF-35	35	20.0	8.0	47.5	86.0	12.8	25.0	7.200	1	125
110130	TBF-50	50	20.0	9.0	47.5	86.0	12.8	25.0	7.000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



10406 TBPE
Bimetallic cable lug

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

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

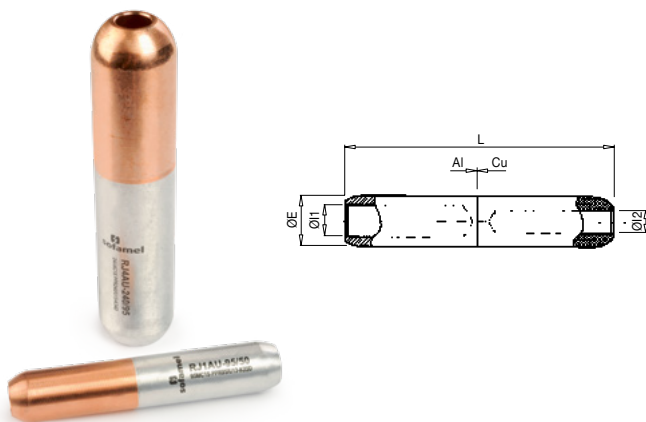


10407 MBI
Bimetallic joint

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

Code	Ref.	Section (mm²)		Dimensions (mm)					x 100		
		Al	Cu	ØE1	ØI1	L1	ØE2	ØI2			
130100	MBI-50/25	50	25	20.0	9.0	48.0	12.2	7.0	6.700	1	30
130110	MBI-95/50	95	50	20.0	12.5	48.0	12.2	9.5	5.100	1	30
130120	MBI-150/50	150	50	25.0	15.5	65.0	12.2	9.5	8.500	1	20
130130	MBI-150/95	150	95	25.0	15.5	65.0	21.0	13.0	14.300	1	20
130135	MBI-240/50	240	50	32.0	19.5	65.0	12.2	9.5	12.900	1	10
130137	MBI-240/95	240	95	32.0	19.5	65.0	21.0	13.0	18.000	1	10
130140	MBI-240/150	240	150	32.0	19.5	65.0	21.0	16.0	16.500	1	10

Other sections under request.



10408 RJAU
Bimetallic joint

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

According to NF C33-090-1 standard.

Code	Ref.	Section (mm²)		Dimensions (mm)				x 100		
		Al	Cu	ØE	ØI1	ØI2	L			
135100	RJ1AU50/25	50	25	20	9.0	7.0	106.5	18.402	1	25
135110	RJ1AU95/50	95	50	20	12.5	9.5	106.5	15.930	1	25
135120	RJ2AU150/50	150	50	25	15.5	9.5	133.0	28.130	1	15
135130	RJ2AU150/95	150	95	25	15.5	13.0	133.0	25.080	1	15
135134	RJ4AU240/50	240	50	32	19.5	9.5	143.5	49.590	1	8
135137	RJ4AU240/95	240	95	32	19.5	13.0	143.5	46.409	1	8
135140	RJ4AU240/150	240	150	32	19.5	16.0	143.5	43.009	1	8

Other sections under request.

COMPRESSION AND MECHANICAL CLAMPS



10501 LB
Bolt-fastened compression clamp

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

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



10502 LBE-ID
Bolt-fastened tinplated compression clamp

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

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



10501 TPA and TPA/D
Bolt-fastened compression clamp

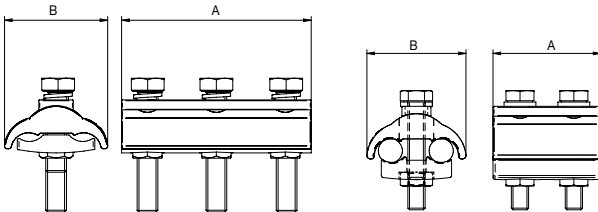
TPA and TPA/D clamps are made from aluminium alloy with a 20 µ tinplated finish, M12 stainless steel screw.

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

COMPRESSION AND MECHANICAL CLAMPS

10503 PGC/A
Bolt-fastened compression clamp

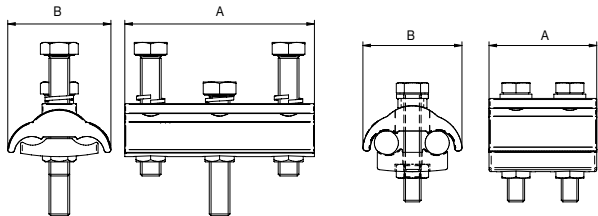
PGC/A mechanical clamps are manufactured in cast aluminium. Fasteners in stainless steel.



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

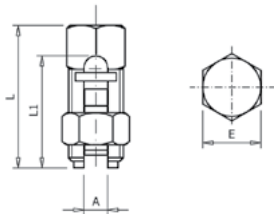
10503 PGC/B
Bolt-fastened tinned compression clamp

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



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

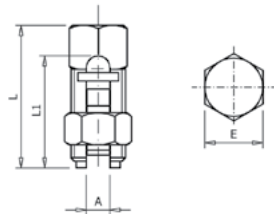
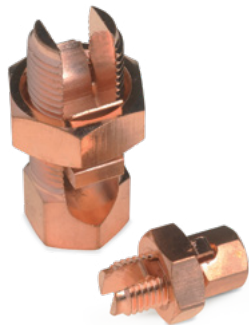
COMPRESSION AND MECHANICAL CLAMPS



10504 APB
Bimetallic split-bolt connector

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

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

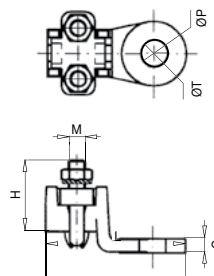


10505 APC
Copper split-bolt connector

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

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

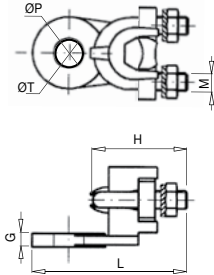
SETSCREW CONNECTORS



10601 TR
Setscrew joint straight entry

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

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

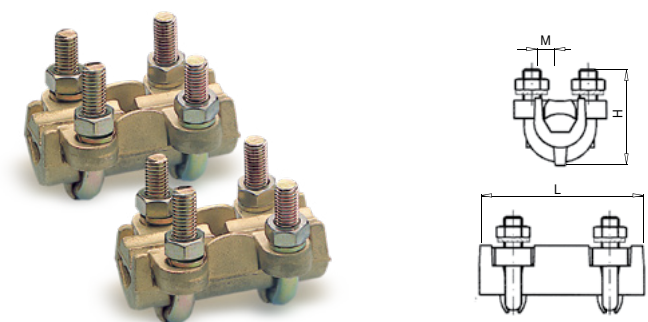


10602 TRE
Setscrew 90° joint entry

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

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

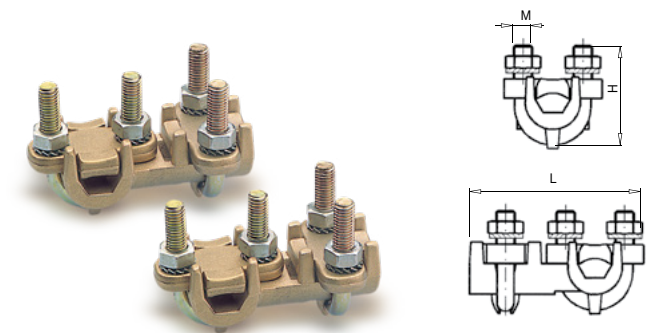
SETSCREW CONNECTORS



10603 TRM
Setscrew joint

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

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

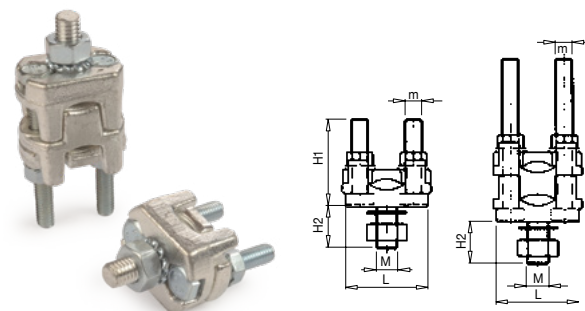


10604 TRT
Tap setscrew joint

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

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

SETSCREW CONNECTORS



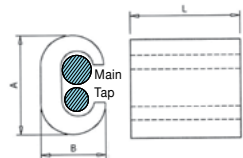
10605 TRF
Turret bimetallic clamp

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

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

CRIMPS

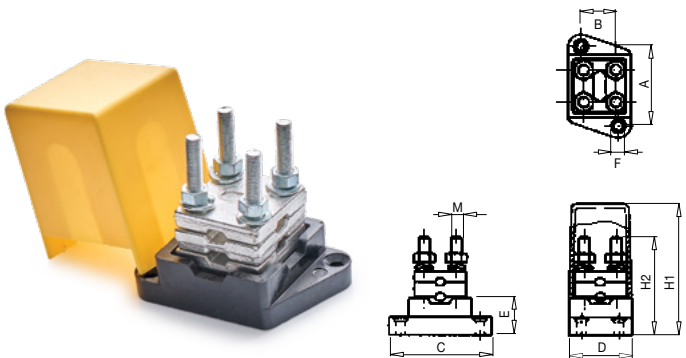
STUDED CLAMPS



10701 CRA
Aluminium compression clamp

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

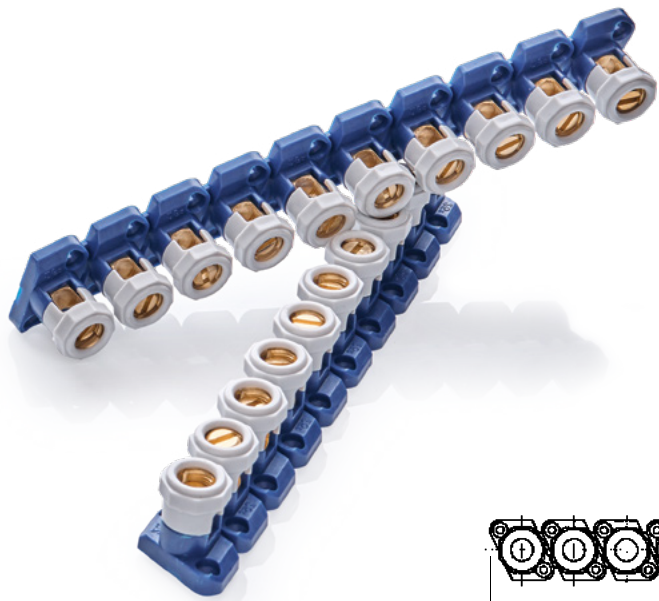
Code	Ref.	Main		Tap		Dimensions (mm)			x 100	Bag	Box
		Max.	Min.	Max.	Min.	A	B	L			
140100	CRA-1	35	25	35	25	25.0	16.4	38.5	2.525	1	150
140110	CRA-2	70	50	50	50	35.0	22.0	65.0	6.880	1	100
140120	CRA-3	120	95	35	10	41.0	25.5	65.0	11.350	1	75
140122	CRA-3A	120	95	120	95	-	-	-	11.650	1	75
140130	CRA-4	185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



10801 BEB
Bimetallic clamp

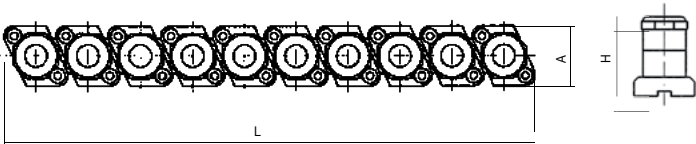
BEB bimetallic clamp manufactured from brass with tinplated finish. The base is made of bakelite which grants a high temperature resistance.

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



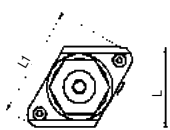
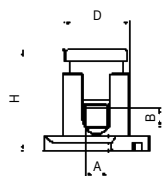
10802 ADRI
Polyamide strip block

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



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

STUDDED CLAMPS



10803 BUS
Polyamide one-pole strip block

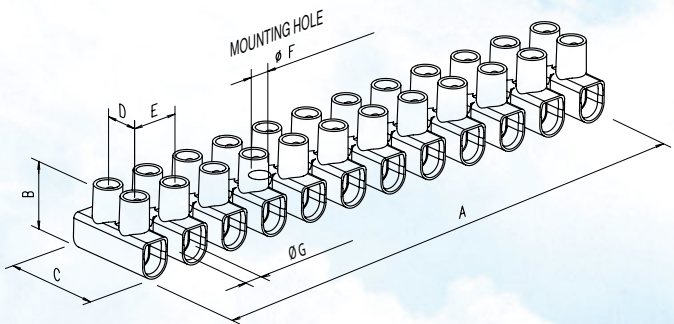
BUS strip block manufactured from 6.6 auto-extinguishing polyamide according to CE Directive. All terminals are linkable between them and are suitable for connections and panel boards applications.

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

TERMINAL STRIPS

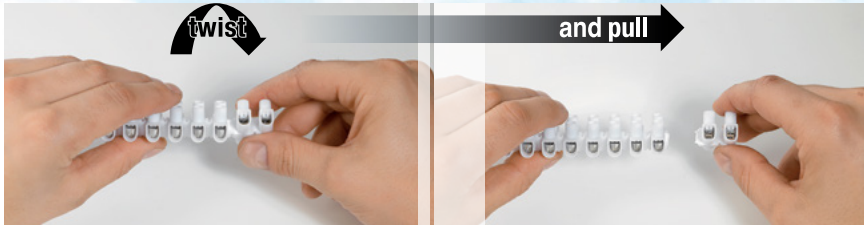
SKL

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



10804 SKL
Terminal strip

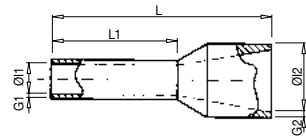
SKL terminal strip manufactured from polypropylene with additives. In accordance to RoHs standard.



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

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

CORD END TERMINALS

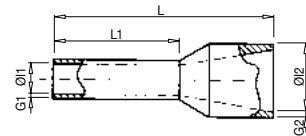


10901 APF
Cord end terminal

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

Sec. (mm²)	L1	Code	Ref.	Colour	Dimensions (mm)						Kg x 1.000	Bag	Box
				F	L	L1	ØI1	G1	ØI2	G2			
0.50	8	245100	APF-0,50/8	WHITE	14.5	8	1.0	0.15	2.6	0.25	0.088	100	4000
	10	260100	APF-0,50/10		16.0	10	1.0	0.15	2.6	0.25	0.112	100	3500
0.75	8	245110	APF-0,75/8	BLUE	14.6	8	1.2	0.15	2.8	0.25	0.100	100	4000
	12	260110	APF-0,75/12		18.4	12	1.2	0.15	2.8	0.25	0.123	100	3500
1	8	245120	APF-1,00/8	RED	14.6	8	1.4	0.15	3.0	0.25	0.116	100	3500
	12	260120	APF-1,00/12		18.4	12	1.4	0.15	3.0	0.25	0.157	100	3000
1.5	8	245130	APF-1,50/8	BLACK	14.6	8	1.7	0.15	3.5	0.25	0.134	100	3000
	18	260130	APF-1,50/18		24.4	18	1.7	0.15	3.5	0.25	0.213	100	2500
2.5	8	245140	APF-2,50/8	GREY	15.2	8	2.2	0.15	4.0	0.25	0.165	100	2500
	18	260140	APF-2,50/18		25.0	18	2.2	0.15	4.0	0.25	0.258	100	2000
4	10	245150	APF-4,00/10	ORANGE	16.5	10	2.8	0.20	4.4	0.30	0.231	100	2000
	18	260150	APF-4,00/18		25.5	18	2.8	0.20	4.4	0.30	0.372	100	1600
6	12	245160	APF-6,00/12	GREEN	20.0	12	3.5	0.20	6.3	0.30	0.388	100	1000
	18	260160	APF-6,00/18		26.0	18	3.5	0.20	6.3	0.30	0.490	100	800
10	12	245170	APF-10,00/12	BROWN	21.5	12	4.5	0.20	7.6	0.40	0.556	100	800
	18	260170	APF-10,00/18		27.5	18	4.5	0.20	7.6	0.40	0.720	100	400
16	12	245180	APF-16,00/12	IVORY	22.2	12	5.8	0.20	8.8	0.40	0.762	100	500
	18	260180	APF-16,00/18		28.2	18	5.8	0.20	8.8	0.40	0.963	100	300
25	16	245190	APF-25,00/16	IVORY	29.0	16	7.3	0.20	11.2	0.40	1.134	50	350
	22	260190	APF-25,00/22		35.0	22	7.3	0.20	11.2	0.40	1.415	50	200
35	16	245200	APF-35,00/16	RED	30.0	16	8.3	0.20	12.5	0.50	1.308	50	250
	22	260200	APF-35,00/22		39.0	22	8.3	0.20	12.5	0.50	1.693	50	200
50	20	245210	APF-50,00/20	BLUE	36.0	20	10.3	0.30	15.0	0.60	2.300	50	150
	25	260210	APF-50,00/25		40.0	25	10.3	0.30	15.0	0.60	2.784	25	125

CORD END TERMINALS

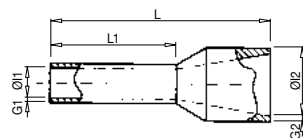


10902 APF
Cord end terminal

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

Sec. (mm²)	L1	Code	Ref.	Colour	Dimensions (mm)						Kg x 1.000	Bag	Box
				W	L	L1	ØI1	G1	ØI2	G2			
0.50	8	246100	APF-0,50W/8	ORANGE	14.5	8	1.0	0.15	2.6	0.25	0.088	100	4000
	10	261100	APF-0,50W/10		16.0	10	1.0	0.15	2.6	0.25	0.112	100	3500
0.75	8	246110	APF-0,75W/8	WHITE	14.6	8	1.2	0.15	2.8	0.25	0.100	100	4000
	12	261110	APF-0,75W/12		18.4	12	1.2	0.15	2.8	0.25	0.123	100	3500
1	8	246120	APF-1,00W/8	YELLOW	14.6	8	1.4	0.15	3.0	0.25	0.116	100	3500
	12	261120	APF-1,00W/12		18.4	12	1.4	0.15	3.0	0.25	0.157	100	3000
1.5	8	246130	APF-1,50W/8	RED	14.6	8	1.7	0.15	3.5	0.25	0.134	100	3000
	18	261130	APF-1,50W/18		24.4	18	1.7	0.15	3.5	0.25	0.213	100	2500
2.5	8	246140	APF-2,50W/8	BLUE	15.2	8	2.2	0.15	4.0	0.25	0.165	100	2500
	18	261140	APF-2,50W/18		25.0	18	2.2	0.15	4.0	0.25	0.258	100	2000
4	10	246150	APF-4,00W/10	GREY	16.5	10	2.8	0.20	4.4	0.30	0.231	100	2000
	18	261150	APF-4,00W/18		25.5	18	2.8	0.20	4.4	0.30	0.372	100	1600
6	12	246160	APF-6,00W/12	BLACK	20.0	12	3.5	0.20	6.3	0.30	0.388	100	1000
	18	261160	APF-6,00W/18		26.0	18	3.5	0.20	6.3	0.30	0.490	100	800
10	12	246170	APF-10,00W/12	IVORY	21.5	12	4.5	0.20	7.6	0.40	0.556	100	800
	18	261170	APF-10,00W/18		27.5	18	4.5	0.20	7.6	0.40	0.720	100	400
16	12	246180	APF-16,00W/12	GREEN	22.2	12	5.8	0.20	8.8	0.40	0.762	100	500
	18	261180	APF-16,00W/18		28.2	18	5.8	0.20	8.8	0.40	0.963	100	300
25	16	246190	APF-25,00W/16	BROWN	29.0	16	7.3	0.20	11.2	0.40	1.134	50	350
	22	261190	APF-25,00W/22		35.0	22	7.3	0.20	11.2	0.40	1.415	50	200
35	16	246200	APF-35,00W/16	BEIGE	30.0	16	8.3	0.20	12.5	0.50	1.308	50	250
	22	261200	APF-35,00W/22		39.0	22	8.3	0.20	12.5	0.50	1.693	50	200
50	20	246210	APF-50,00W/20	OLIVE	36.0	20	10.3	0.30	15.0	0.60	2.300	50	150
	25	261210	APF-50,00W/25		40.0	25	10.3	0.30	15.0	0.60	2.784	25	125

CORD END TERMINALS

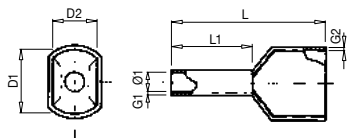


10903 APF
Cord end terminal

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

Sec. (mm ²)	L1	Code	Ref.	Colour	Dimensions (mm)						Kg x 1.000	Bag	Box
				D	L	L1	ØI1	G1	ØI2	G2			
0.50	8	245100	APF-0,50/8	WHITE	14.5	8	1.0	0.15	2.6	0.25	0.088	100	4000
	10	260100	APF-0,50/10		16.0	10	1.0	0.15	2.6	0.25	0.112	100	3500
0.75	8	250110	APF-0,75D/8	GREY	14.6	8	1.2	0.15	2.8	0.25	0.100	100	4000
	12	262110	APF-0,75D/12		18.4	12	1.2	0.15	2.8	0.25	0.123	100	3500
1	8	245120	APF-1,00/8	RED	14.6	8	1.4	0.15	3.0	0.25	0.116	100	3500
	12	260120	APF-1,00/12		18.4	12	1.4	0.15	3.0	0.25	0.157	100	3000
1.5	8	245130	APF-1,50/8	BLACK	14.6	8	1.7	0.15	3.5	0.25	0.134	100	3000
	18	260130	APF-1,50/18		24.4	18	1.7	0.15	3.5	0.25	0.213	100	2500
2.5	8	246140	APF-2,50W/8	BLUE	15.2	8	2.2	0.15	4.0	0.25	0.165	100	2500
	18	261140	APF-2,50W/18		25.0	18	2.2	0.15	4.0	0.25	0.258	100	2000
4	10	246150	APF-4,00W/10	GREY	16.5	10	2.8	0.20	4.4	0.30	0.231	100	2000
	18	261150	APF-4,00W/18		25.5	18	2.8	0.20	4.4	0.30	0.372	100	1600
6	12	250160	APF-6,00D/12	YELLOW	20.0	12	3.5	0.20	6.3	0.30	0.388	100	1000
	18	262160	APF-6,00D/18		26.0	18	3.5	0.20	6.3	0.30	0.490	100	800
10	12	250170	APF-10,00D/12	RED	21.5	12	4.5	0.20	7.6	0.40	0.556	100	800
	18	262170	APF-10,00D/18		27.5	18	4.5	0.20	7.6	0.40	0.720	100	400
16	12	250180	APF-16,00D/12	BLUE	22.2	12	5.8	0.20	8.8	0.40	0.762	100	500
	18	262180	APF-16,00D/18		28.2	18	5.8	0.20	8.8	0.40	0.963	100	300
25	16	250190	APF-25,00D/16	YELLOW	29.0	16	7.3	0.20	11.2	0.40	1.134	50	350
	22	262190	APF-25,00D/22		35.0	22	7.3	0.20	11.2	0.40	1.415	50	200
35	16	245200	APF-35,00/16	RED	30.0	16	8.3	0.20	12.5	0.50	1.308	50	250
	22	260200	APF-35,00/22		39.0	22	8.3	0.20	12.5	0.50	1.693	50	200
50	20	245210	APF-50,00/20	BLUE	36.0	20	10.3	0.30	15.0	0.60	2.300	50	150
	25	260210	APF-50,00/25		40.0	25	10.3	0.30	15.0	0.60	2.784	25	125

CORD END TERMINALS



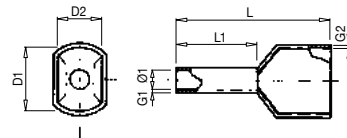
10904 APF/D
Twin cord end terminal

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

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

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

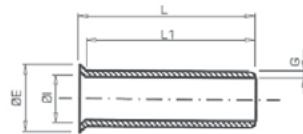
CORD END TERMINALS



10904 APF/D
Twin cord end terminal

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

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

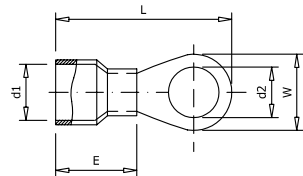


10905 PF
Non-insulated cord end terminal

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

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

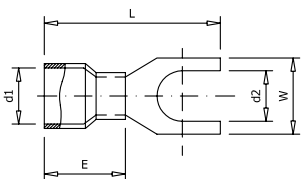
INSULATED TERMINALS



11001 AT
Insulated ring terminal

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

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

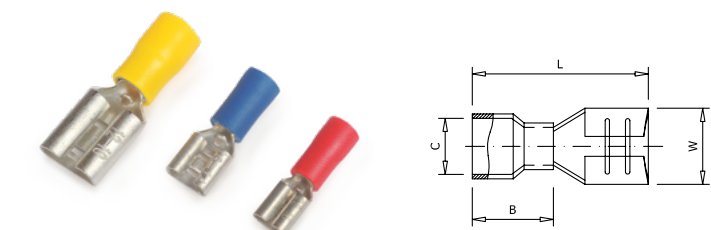


11002 AU
Insulated fork terminal

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

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

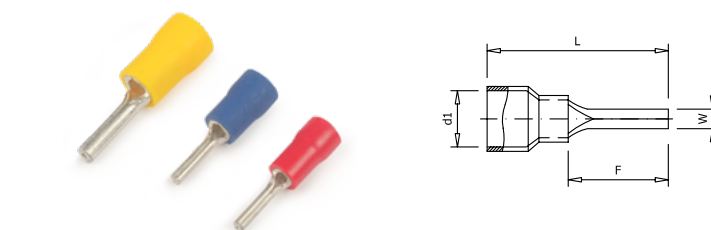
INSULATED TERMINALS



11003 AFH
Insulated female connector

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

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



11004 AP
Insulated pin terminal

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

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

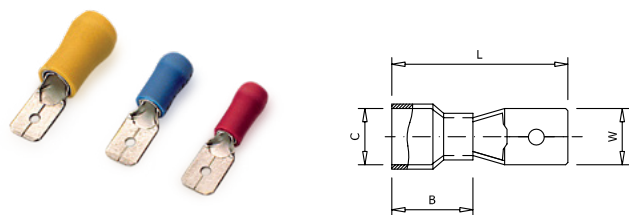


11004 APP
Insulated blade terminal

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

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

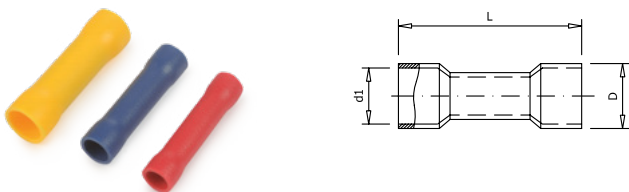
INSULATED TERMINALS



11003 AFM
Insulated male connector

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

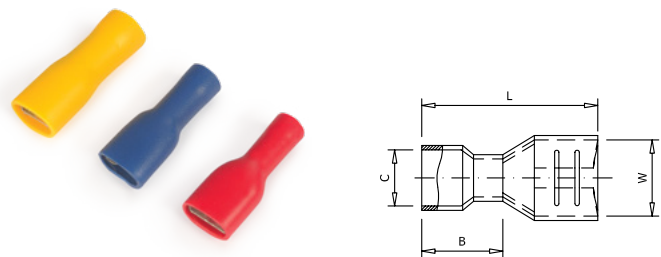
Code	Ref.	Section (mm²)	Dimensions (mm)				x 1.000	Bag	Box
			W	L	B	C			
295100	AFM-1,5		6.35	21.8	10.5	1.7	0.794	100	1600
295110	AFM-2,5		6.35	21.8	10.5	2.3	0.882	100	1400
295120	AFM-6,0		6.35	24.0	13.0	3.4	1.494	100	800



11005 AML
Insulated butt-connector

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

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

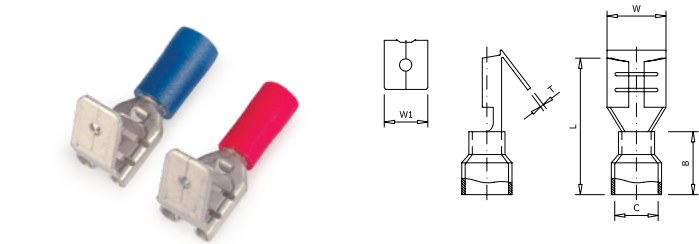


11003 AFH/A
Fully insulated female connector

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

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

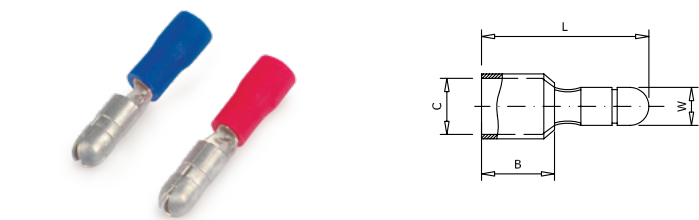
INSULATED TERMINALS



11003 AFH/M
Insulated piggyback terminal

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

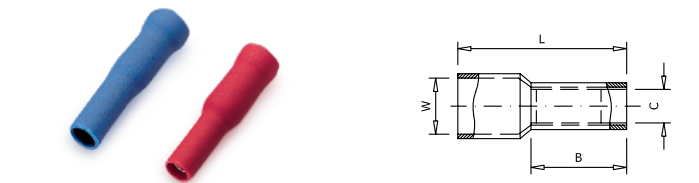
Code	Ref.	Section (mm²)	Dimensions (mm)							Kg x 1.000	Bag	Box
			W	W1	L	B	C	T	Espesor			
305130	AFH/M-1,5	1.5	6.6	6.35	22.5	10.5	1.7	3.5	0.8	1.294	100	700
305140	AFH/M-2,5	2.5	6.6	6.35	22.5	10.5	2.3	4.3		1.442	100	700



11003 ACM
Insulated male bullet terminal

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

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



11003 ACH
Insulated socket connector

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

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

ABC CONNECTORS



11101 ABT
Insulating piercing connector

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

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

11104 Pigtail hooks and eyebolts

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



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

11102 PA-1000 and PA-1500
Line connection anchor

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



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

11102 PA-2000
Line connection anchor

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



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

11102 PA-25
Line connection anchor

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



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

11103 ES-1500
Suspension unit

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



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

11103 PS-1500
Console

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



Code	Ref.	Section (mm²)		Load daN	 x 100		
		Min.	Max.				
361110	PS-1500	54.6	80	1500	21.450	1	-

11103 CS-1500
Console

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



Code	Ref.	Load daN	 x 100		
361120	CS-1500	1500	25,180	1	-

11103 CA-1500
Console

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



Code	Ref.	Load daN	 x 100		
361130	CA-1500	1500	47,160	1	-

11103 RA-25
Console

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



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

11106 BRPF
Synthetic wall-mount support for nail fixing

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

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

11106 BRPV
Synthetic wall-mount support for screw fixing

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

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

11110 CSL
Synthetic clamp

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

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

11105 ARC
Plasticized support for lines

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

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

11105 BIP
Plasticized support for line connections

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

For concrete poles

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

For concrete or wooden poles

367120	BIP-120 CV	10 to 22	10	10	-	100
367130	BIP-180 CV	10 to 42	10	10	-	100

Nail plug included.

11107 MULTI
Plasticized tie

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

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



11108 ES
Flexible PVC end cap

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

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

11108 CCS
Flexible Santoprene end cap

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

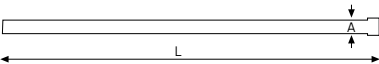


Code	Ref.	Section cable (mm)	Length (mm)	x 100	Bag	Box
370100	CCS-6/35	6 to 35	30	0.200	-	100
370110	CCS-25/185	25 to 185	80	0.840	-	100

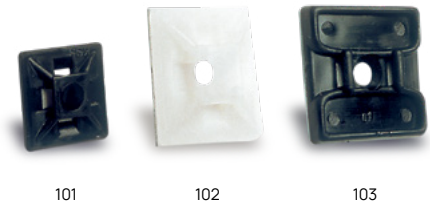


11111 BR
Polyamide 6 cable tie

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



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



11112 SAP
Self-adhesive mount

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

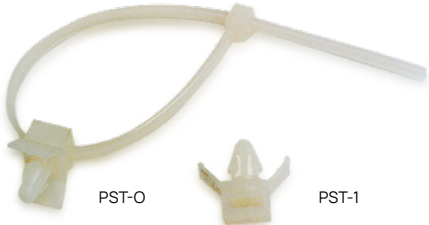
Code	Ref.	Length x Width (mm)	Colour	 Bag	 Box
340100	SAP-101	21x21	Natural	100	-
340110	SAP-101-N	21x21	Black	100	-
340120	SAP-102	28x28	Natural	100	-
340130	SAP-102-N	28x28	Black	100	-
340140	SAP-103	28x28	Natural	100	-
340150	SAP-103-N	28x28	Black	100	-



11112 ST
Screw type mount

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

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



11111 PST
Mounts by pressure

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

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

* Bracket not included.



11113 EC
Nail plugs

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

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

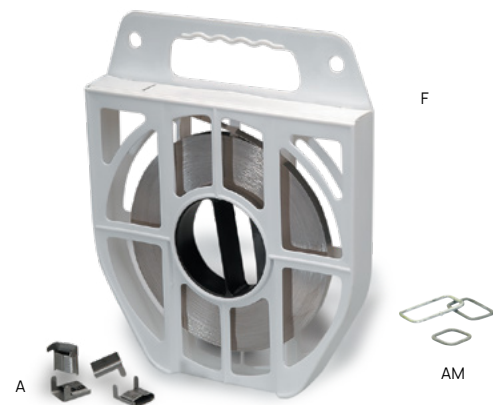


11113 CD
Nail plugs

CD nail plugs are manufactured from polyamide for wall fixing.

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

ABC CONNECTORS



11109 F / A / AM
Band and fittings

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

Code	Ref.	Width x Thickness (mm)	Length (m)	x1	Bag	Box
371100	F-104	10 x 0.4	50	1.600	-	1
371110	F-107	10 x 0.7	50	2.700	-	1
371120	F-204	20 x 0.4	50	3.400	-	1
371130	F-207	20 x 0.7	50	5.800	-	1

Code	Ref.	Width (mm)	x1	Bag	Box
371140	A-100	10	0.500	100	-
371150	A-200	20	0.900	100	-

Code	Ref.	Dimensions (mm)	x1	Bag	Box
371160	AM-25	25 x 25	1.400	100	-
371170	AM-40	25 x 40	1.900	100	-
371180	AM-60	25 x 60	2.450	100	-



20106 OPL
Strapping tool

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

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

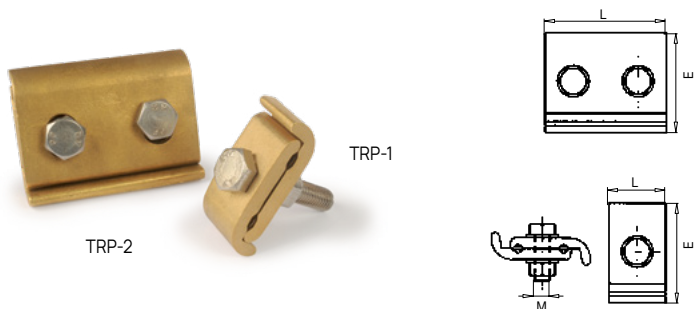


20106 OPC
Strap cutter

Cutter tool for stainless steel band.

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

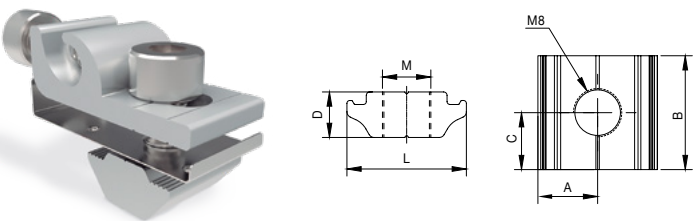
EARTHING ACCESSORIES



11302 TRP
Copper parallel earthing clamp

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

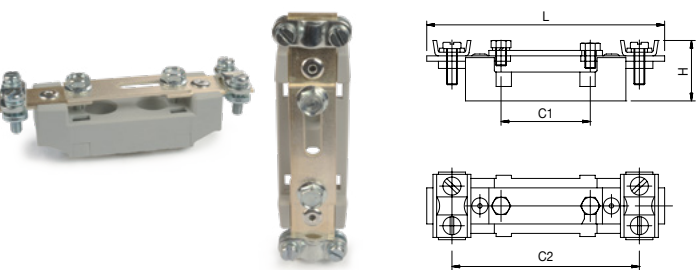
Code	Ref.	Main		Tap		Dimensions (mm)			x 100	Bag	Box
		Max.	Min.	Max.	Min.	E	L	M			
175100	TRP-1-25/150	150	25	150	25	68	30	12	29.000	-	15
175110	TRP-2-25/150	150	25	150	25	68	62	12	58.000	-	6
175120	TRP-2-25/150-R	150	25	150	25	68	90	12	81.000	-	5



11404 SCF/GC
Earthing clip

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

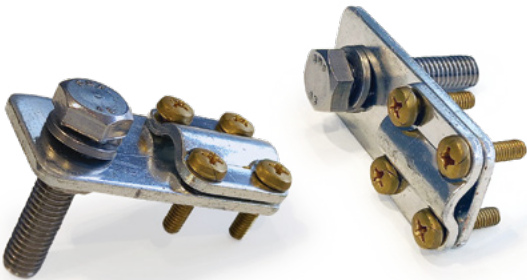
Code	Ref.	Dimensions (mm)						x 100	Bag	Box
		A	B	C	D	L	M			
501070	SCF/GC	10.5	20	10	8	21	M8	-	10	500



11302 PTR
Neutral earthing switch

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

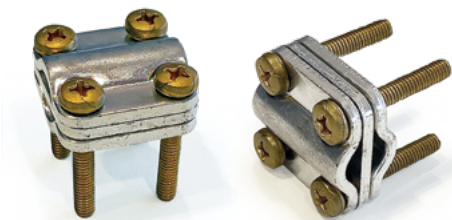
Code	Ref.	Dimensions (mm)				x 100	Box	Pallet
		L	H	C1	C2			
240100	PTR	117.5	23	25	103	-	1	10



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

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

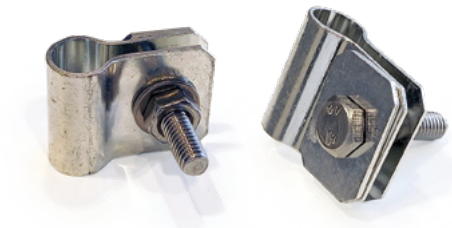
Code	Ref.	Description	 x 100	 Bag	 Box
171100	TMV-8	Multiple terminal for copper rod 8 mm Ø	-	1	-



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

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

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



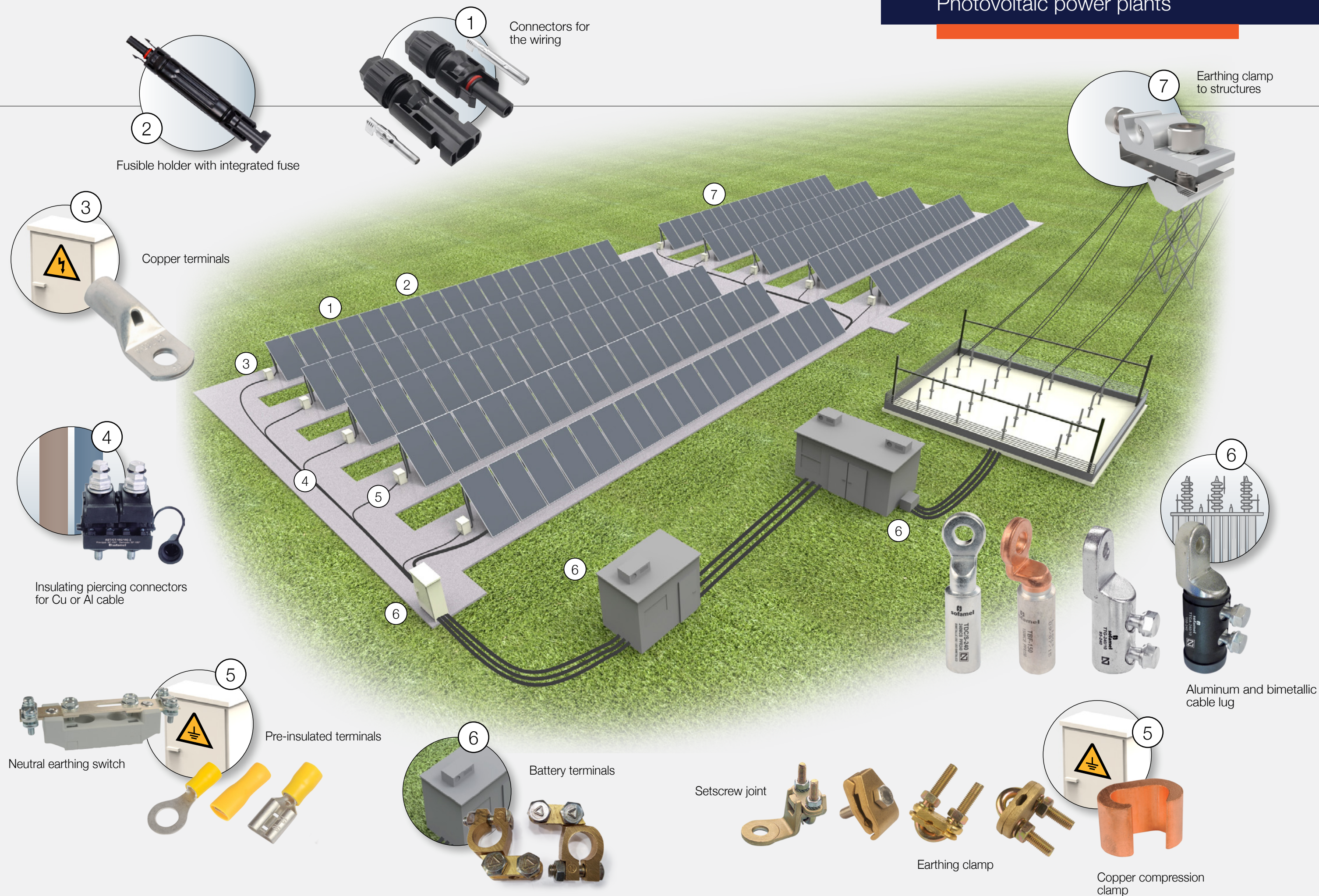
11304 GDC
Earthing clamp

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

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

CONNECTIONS FOR PHOTOVOLTAIC INSTALLATIONS





Connectors for the wiring

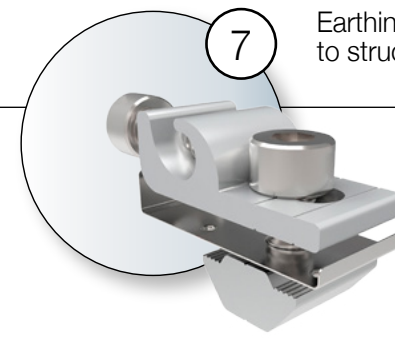


1

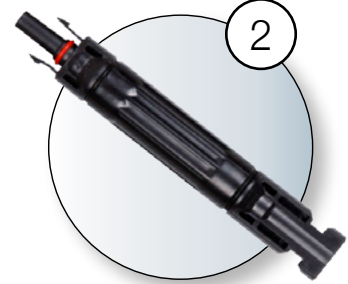
2

7

Earthing clamp to structures

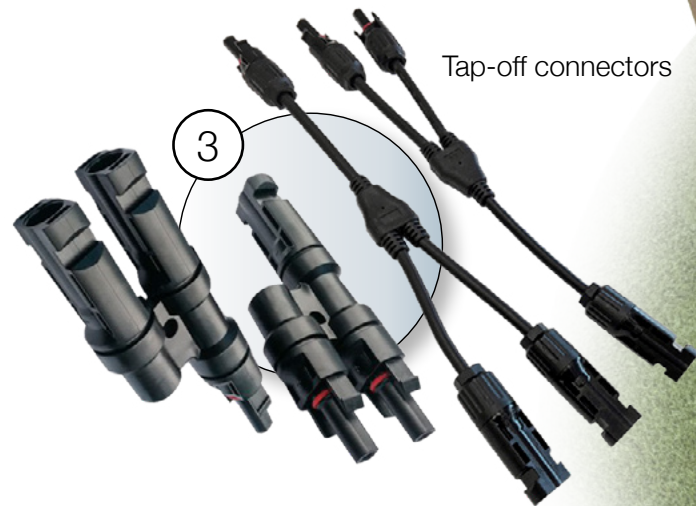


2



Fusible holder with integrated fuse

Tap-off connectors



3

4

5

5

Pre-insulated terminals

Neutral earthing switch



Copper terminals



4

6

Copper compression clamp



Setscrew joint

Earthing clamp

6

CONNECTIONS FOR PHOTOVOLTAIC INSTALLATIONS

Solar Connection



11401 SCF/C

MC4 type connectors for 1000 V and 1500 V

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

Code	Ref.	Cable Section (mm ²)	 x 100	 Bag	 Box
501010	SCF/C-1000V	2.5-6	-	-	-
501020	SCF/C-1500V-A	2.5-6	-	-	-
501030	SCF/C-1500V-B	10	-	-	-



11401 SCF/D-TL

Tap-off connectors with flexible hose

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

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



11402 SCF/FUSE

MC4 Type fuse holder for 1000 V and 1500 V

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

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



11401 SCF/CT-1000V

MC4 type connectors behind the scenes

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

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

CONNECTIONS FOR PHOTOVOLTAIC INSTALLATIONS

Solar Connection



11401 SCF/D-T

Tap-off connectors

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

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



20103 L-MC4

Installation key

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

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

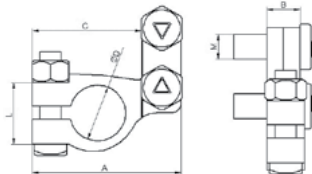


20103 LX-MC4

Cross wrench for installing MC4 fuse holders

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

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



11404 SCF/BB

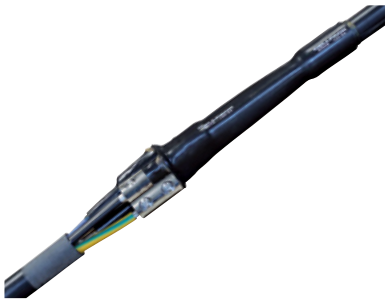
Battery terminals

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

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

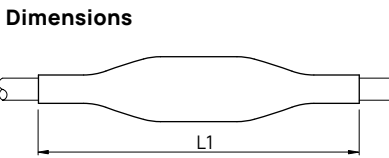
HEAT SHRINK TECHNOLOGY

 Straight-through joints



SMHSV
Heat shrinkable straight-through joint
with screw connectors (with shear head bolts), for unarmoured polymeric cables and conductors

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



- 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

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

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

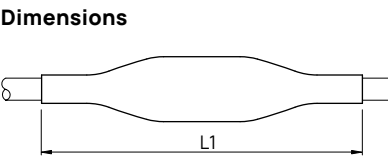
HEAT SHRINK TECHNOLOGY

 Straight-through joints



SMH...V
Heat shrinkable straight-through joint
with screw connectors, for unarmoured polymeric cables and conductors

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



- 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

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

HEAT SHRINK TECHNOLOGY

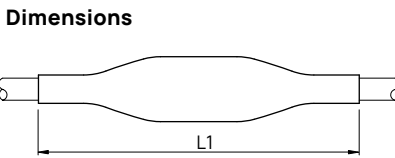


Straight-through joints



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

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



- Characteristics**

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

 - Indoor
 - Outdoor
 - Underground
 - Water
 - Installation ducts
 - Ductwork

Voltage level

 - $U_0/U (U_m)$ 0.6/1 (1.2) kV

Test standards

 - DIN EN 50393 (corresponds to VDE 0278)
- Storage conditions/Shelf life**

 - Unlimited shelf life

Scope of delivery
Outer sleeve, inner sleeves, cleaning tissue, emery cloth, assembly instructions
Optional accessory: Compression connectors (see Connecting technology)

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

HEAT SHRINK TECHNOLOGY

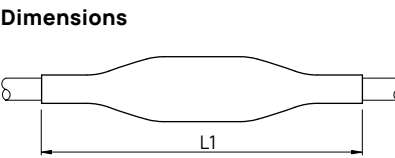


Straight-through joints



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

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



- Characteristics**

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

 - Indoor
 - Outdoor
 - Underground
 - Water
 - Installation ducts
 - Ductwork

Voltage level

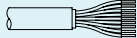
 - $U_0/U (U_m)$ 0.6/1 (1.2) kV

Test standards

 - DIN EN 50393 (corresponds to VDE 0278)
- Storage conditions/Shelf life**

 - Unlimited shelf life

Scope of delivery
Outer sleeve, 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

HEAT SHRINK TECHNOLOGY

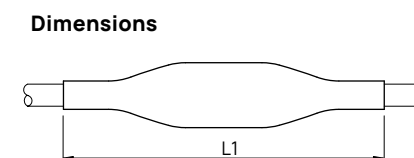


Straight-through joints



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

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



- Characteristics**

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

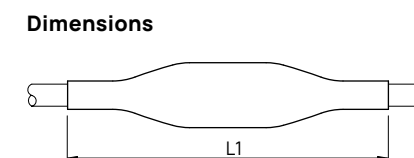


Straight-through joints



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

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



- Characteristics**

 - Compact dimensions
 - Wide conductor and cross-section range
 - Resistant to chemical agents
 - Resistant to alkaline earth elements
 - Stabilized against UV rays
 - Free from paint-wetting inhibiting substances
 - Halogen-free
 - Transversely waterproof
 - High electrical insulating values
 - High mechanical strength
- 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, inner sleeves, filling material, cleaning tissue, emery cloth, assembly instructions

Polymeric conductor					
unarmoured					
 					
4x5x					
Type	L1 mm	Nominal cross section per conductor mm²		Art.-No.	
SMH4G	1.5-10	1.5 - 10		145479	
	16-50	16 - 50		145481	
	35-95	35 - 95		145482	
	95-150	95 - 150		145552	
SMH5G	1.5-10	1.5 - 10		145483	
	10-25	10 - 25		145484	
	16-50	16 - 50		163952	
	70-120	70-120		205102	

HEAT SHRINK TECHNOLOGY

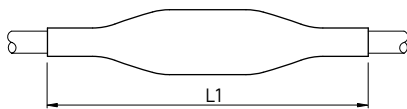
 Straight-through joints



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

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

Dimensions



Characteristics

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

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level

- $U_0/U (U_m)$ 0.6/1 (1.2) kV

Test standards

- DIN EN 50393 (corresponds to VDE 0278)

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

Optional accessory: Compression connectors (see Connecting technology)

			Polymeric cable			Art.-No.
			with concentric conductor			
						
			1x	3x	4x	
Type		L1 mm	Nominal cross section per conductor mm²			
SMHC1	95-240	500	95/50 - 240/95			152521
	150-300	500	150/95 - 300/120			152522
SMHC3	4-10*	350		4/4 - 10/10		126672
	16-35*	500		16/16 - 35/35		126674
	50-95*	600		50/50 - 95/95		126675
	120-240*	1000		120/120 - 240/240		126676
SMHC4	4-10*	350			4/4 - 10/10	203028
	16-35*	500			16/16 - 35/16	203029
	50-95*	600			50/25 - 95/50	203040
	120-240*	1000			120/70 - 240/120	203041

*with additional inner tube

HEAT SHRINK TECHNOLOGY

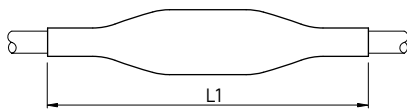
 Straight-through joints



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

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

Dimensions



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

Storage conditions/Shelf life

- Unlimited shelf life

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

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

Optional accessory: Compression connectors (see Connecting technology)

			Polymeric cable			Art.-No.
			unarmoured		with concentric conductor	
						
			4x	5x	4x	
Type		L1 mm	Nominal cross section per conductor mm²			
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

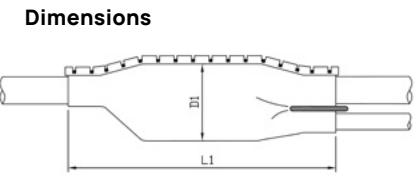
HEAT SHRINK TECHNOLOGY

 Straight-through joints



SMHF
Heat shrinkable straight-through joint
for telecommunication cables

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



- Characteristics**

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

 - Unlimited shelf life
- Application/Suitability**

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

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						Art.-No.
					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						145559 145560 145568 145564 145572 145569 145574
SMHF	43-8/330	330	43	8 - 35	30	20	10	40	30	20	
	43-8/570	570	43	8 - 35	70	40	20	100	70	30	
	68-15/380	380	68	15 - 55	100	50	30	150	100	50	
	68-15/690	690	68	15 - 55	150	100	50	250	150	70	
	93-25/400	400	93	25 - 68	150	100	70	400	250	100	
	93-25/690	690	93	25 - 68	200	200	100	500	300	150	
	120-28/430	430	120	28 - 94	200	200	150	500	300	200	

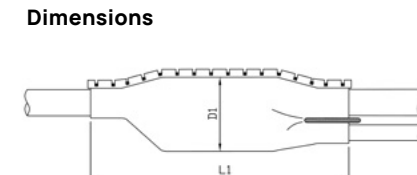
HEAT SHRINK TECHNOLOGY

 Straight-through joints



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

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



- Characteristics**

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

 - Unlimited shelf life
- Application/Suitability**

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

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	D1Ø over protective liner mm	Cable-Ø mm	max. Number of wire pairs						Art.-No.
VASMI	1 SRT	330	43	8 - 35	30	20	10	40	30	20	145562
	1 L SRT	390	43	8 - 35	70	40	20	100	70	30	145561
	2 SRT	380	68	15 - 55	100	50	30	150	100	50	145566
	2 L SRT	450	68	15 - 55	150	100	50	250	150	70	145565
	3 SRT	400	93	25 - 68	150	100	70	400	250	100	145571
	3 L SRT	500	93	25 - 68	200	200	100	500	300	150	145570



Straight-through joints



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

For creating branches in heat shrinkable joints for telecommunication cables.

- Characteristics**

 - Universally suitable for different diameters and numbers of wire pairs
- Application/Suitability**

 - For heat shrinkable joints SMHF and VASMI

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

Note: An assembly kit is required for each branch.

Type	Art.-No.
MSFA	145578



Straight-through joints



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

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

- Characteristics**

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

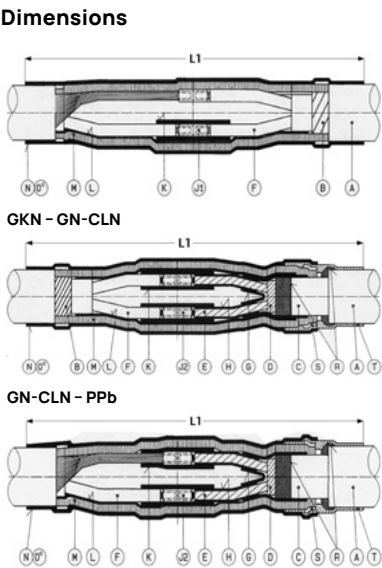
 - Indoor
 - Outdoor
 - Underground
 - Water
 - Installation ducts
 - Ductwork
- Voltage level**

 - $U_0/U (U_m)$ 0.6/1 (1.2) kV
- Note**

 - Straight-through joint for 4-core cables, e.g. GKN, GN-CLN
- Test standards**

 - DIN EN 50393 (corresponds to VDE 0278)
- Storage conditions/Shelf life**

 - Unlimited shelf life



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

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

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



→ Continued on the next page

HEAT SHRINK TECHNOLOGY

 Straight-through joints

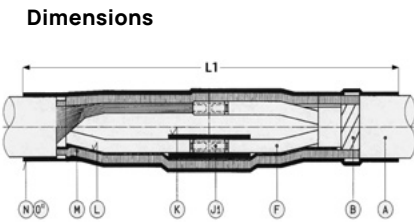
→ Continuation
SM, SM-MA
Heat shrinkable universal straight-through joint

 Particularly for the Swiss market

			Polymeric cable		Mass-impregnated paper cable	
			unarmoured / armoured		(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

HEAT SHRINK TECHNOLOGY

 Straight-through joints



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

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

		Polymeric cable	
		with concentric conductor	
			
		3x	
Type	L1 mm	Nominal cross section per conductor mm²	Art.-No.
SMSV	4-16	4 - 16	335141
	16-95	16 - 95	335143
	95-240	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 shrink-able universal straight-through joints.

- Characteristics**

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

 - For heat shrinkable universal straight-through joints SM and SM-MA
- Voltage level**

 - $U_0/U (U_m)$ 0.6/1 (1.2) kV
- Test standards**

 - DIN EN 50393 (corresponds to VDE 0278)

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

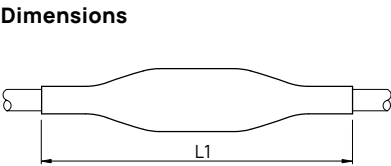


Type		Art.-No.
ZS-PPb	4-10	126773
	16-35	126769
	25-50	366132
	50-95	126770
	120-240	126771



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

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)



		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

HEAT SHRINK TECHNOLOGY



Straight-through joints



Transition joints



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

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

Characteristics

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

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

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

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

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

		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-im-
pregnated 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

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

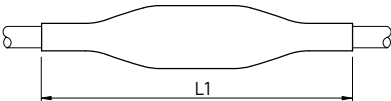
Voltage level

- U₀/U (U_m) 0.6/1 (1.2) kV

Test standards

- DIN EN 50393 (corresponds to VDE 0278)

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

HEAT SHRINK TECHNOLOGY



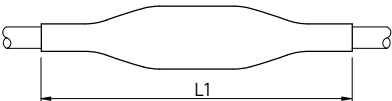
Transition joints



SMHSV4...Pb-RF
Heat shrinkable transition joint
with screw connectors, with solderless earthing wire connection, for polymeric cables and mass-impregnated paper cables

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

Dimensions



- Characteristics**

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

Storage conditions/Shelf life

 - Unlimited shelf life
- Application/Suitability**

 - Indoor
 - Outdoor
 - Underground
 - Water
 - Installation ducts
 - Ductwork

Voltage level

 - $U_0/U (U_m)$ 0.6/1 (1.2) kV

Test standards

 - DIN EN 50393 (corresponds to VDE 0278)

Scope of delivery
Outer sleeve, earthing wire, pressure spring, spreader cap, inner sleeves, 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



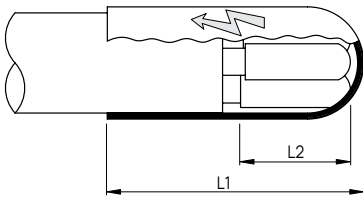
Pot end joints



SEMH...-K
Voltage-resistant pot end joint
with inner caps and outer cap, for polymeric cables and conductors

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

Dimensions



- Characteristics**

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

Storage conditions/Shelf life

 - Unlimited shelf life
- Application/Suitability**

 - Indoor
 - Outdoor
 - Underground
 - Water
 - Installation ducts
 - Ductwork

Voltage level

 - $U_0/U (U_m)$ 0.6/1 (1.2) kV

Test standards

 - DIN EN 50393 (corresponds to VDE 0278)

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

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

HEAT SHRINK TECHNOLOGY



Pot end joints



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

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

Characteristics

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

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

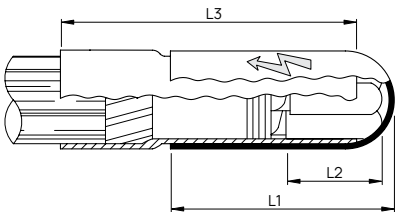
Voltage level

- $U_0/U (U_m)$ 0.6/1 (1.2) kV

Test standards

- DIN EN 50393 (corresponds to VDE 0278)

Dimensions



Scope of delivery
Sealing 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



Cable terminations



SFEX
Heat shrinkable cable termination
for unarmoured polymeric cables and conductors

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

Characteristics

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

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Outdoor

Voltage level

- $U_0/U (U_m)$ 0.6/1 (1.2) kV

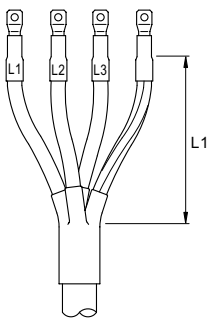
Note

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

Test standards

- DIN EN 50393 (corresponds to VDE 0278)

Dimensions

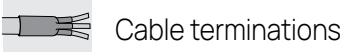


Scope of delivery
Core insulating tubes, spreader cap, sealing tubes, cleaning tissue, emery cloth, assembly instructions

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

HEAT SHRINK TECHNOLOGY



Cable terminations



SFEH
Heat shrinkable cable termination
for unarmoured polymeric cables

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

Characteristics

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

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor

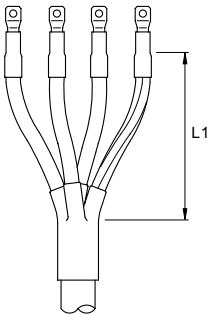
Voltage level

- $U_0/U (U_m)$ 0.6/1 (1.2) kV

Test standards

- DIN EN 50393 (corresponds to VDE 0278)

Dimensions



L1 = user-defined

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

Optional accessory: Compression cable lugs (see Connecting technology)

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



Cable terminations



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

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

Characteristics

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

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor

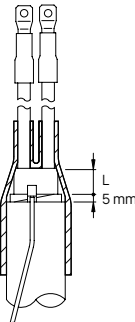
Voltage level

- $U_0/U (U_m)$ 0.6/1 (1.2) kV

Test standards

- DIN EN 50393 (corresponds to VDE 0278)

Dimensions



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

Optional accessory: Compression cable lugs (see Connecting technology)



Polymeric cable				
armoured				
				
4x				
Type		L mm	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

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor

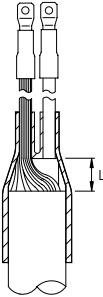
Voltage level

- $U_0/U (U_m)$ 0.6/1 (1.2) kV

Test standards

- DIN EN 50393 (corresponds to VDE 0278)

Dimensions



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

Optional accessory: Compression cable lugs (see Connecting technology)



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



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

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

Characteristics

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

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor

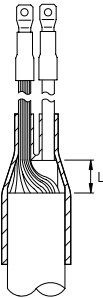
Voltage level

- $U_0/U (U_m)$ 0.6/1 (1.2) kV

Test standards

- DIN EN 50393 (corresponds to VDE 0278)

Dimensions



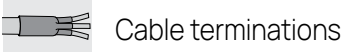
Scope of delivery
Sealing tubes, heat shrinkable tube (Green-Yellow), spreader cap, cleaning tissue, emery cloth, assembly instructions

Optional accessory: Compression cable lugs (see Connecting technology)



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

HEAT SHRINK TECHNOLOGY



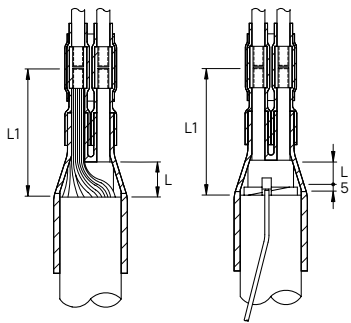
Cable terminations



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 insulat-
ed 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.

Dimensions



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

- Storage conditions/Shelf life**
- Unlimited shelf life

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

- Voltage level**
- $U_o/U (U_m)$ 0.6/1 (1.2) kV

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

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.



				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



Cable terminations



Colours



Black

SR2LK, SR2LK-PEN
Heat shrinkable tube kit
for phase marking

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

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

- Storage conditions/Shelf life**
- Unlimited shelf life

- Application/Suitability**
- Phase marking

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

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



Wall ducts



SHE
Heat shrinkable wall duct
for cables and conductors

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

Characteristics

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

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Mechanical protection for cables and conduits routed through walls

Note

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

Scope of delivery
Wall duct, assembly instructions

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

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

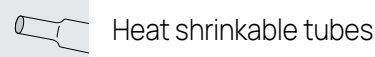


Heat shrinkable tubes

Overview: BBC Cellpack Heat shrinkable tubes

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

● available
- not available



Colours

Black

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

- Characteristics**

 - Thin wall
 - Inscrutable
 - Resistant to chemical agents
 - Stabilized against UV rays
 - Free from paint-wetting inhibiting substances
 - Halogen-free
 - Non-corrosive
 - Infusible
 - High flexibility
 - Superior electrical properties
 - High tensile strength
 - Resistant to cold flow (thermally stable)
- Storage conditions/Shelf life**

 - Unlimited shelf life

Application/Suitability

 - Insulating
 - Bundling
 - Marking
 - Corrosion protection
 - Mechanical protection

Material

 - Cross-linked polyolefin
 - Free of lead and cadmium

Test standards

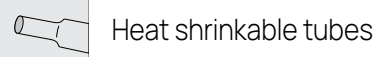
 - Corresponds to MIL-I-23053/5 class 1 and 2

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

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

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

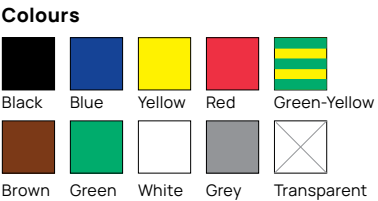
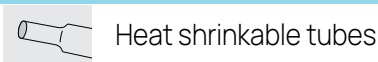
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SRC1
Heat shrinkable thin wall tube

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

HEAT SHRINK TECHNOLOGY



SR1F
Heat shrinkable thin wall tube
self-extinguishing, shrink ratio 2 : 1, without adhesive

- Characteristics**

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

 - Unlimited shelf life

Application/Suitability

 - Insulating
 - Bundling
 - Marking
 - Corrosion protection
 - Mechanical protection

Material

 - Cross-linked polyolefin
 - Free of lead and cadmium

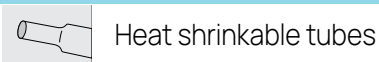
Test standards

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

Scope of delivery
Thin wall heat shrinkable tube, on spool or in lengths
Note: A standard spool may include sections which have been tied together. Other lengths available on request.

Type		L m	Inner-Ø inch	Inner-Ø mm		Recovered wall thickness mm	Art.-No.
			before shrinking	before shrinking	after shrinking		
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

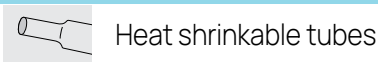
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Type		L m	Inner-Ø inch	Inner-Ø mm		Recovered	Art.-No.
			before shrinking	before shrinking	after shrinking	wall thickness mm	
(Continuation) Lengths Colour: Green-Yellow							
SR1F	2.4-1.2	1	3/32	2,4	1,2	0,51	457291
	3.2-1.6	1	1/8	3,2	1,6	0,51	457292
	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

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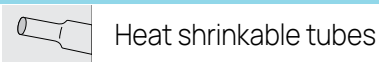
HEAT SHRINK TECHNOLOGY



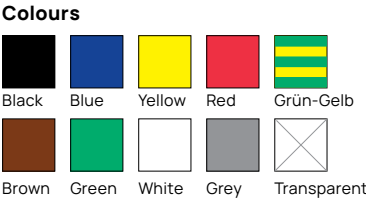
Heat shrinkable tubes

Type		L m	Inner-Ø inch before shrinking	Inner-Ø mm before shrinking after shrinking		Recovered wall thickness mm	Art.-No.
(Continuation) Lengths Colour: White							
SR1F	12.7-6.4	1	1/2	12,7	6,4	0,64	457338
	19.1-9.5	1	3/4	19,1	9,5	0,76	457339
	25.4-12.7	1	1	25,4	12,7	0,89	457340
	38.1-19.1	1	1 1/2	38,1	19,1	1,02	457341
	51.0-25.4	1	2	51	25,4	1,14	457342
Lengths 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



Heat shrinkable tubes



SR1F3

Heat shrinkable thin wall tube

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

Characteristics

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

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Insulating
- Bundling
- Marking
- Corrosion protection
- Mechanical protection

Material

- Cross-linked polyolefin
- Free of lead and cadmium

Test standards

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

Scope of delivery

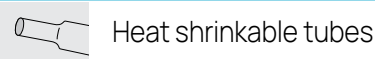
Thin wall heat shrinkable tube, on spool or in lengths

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

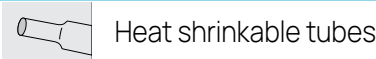
Type		L m	Inner-Ø mm		Recovered wall thickness mm	Art.-No.
			before shrinking	after shrinking		
Spool Colour: Black						
SR1F3	1.5-0.5	300	1.5	0.5	0.45	126977
	3.0-1.0	300	3	1	0.55	127242
	6.0-2.0	300	6	2	0.65	126990
	9.0-3.0	150	9	3	0.75	126995
	12.0-4.0	100	12	4	0.75	127000
	18.0-6.0	50	18	6	0.75	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 SHRINK TECHNOLOGY



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
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
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

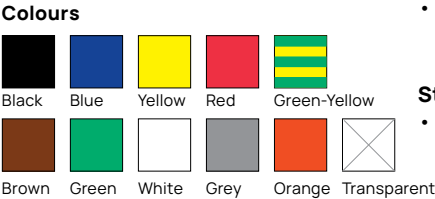
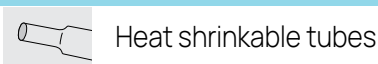


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SR1F3
Heat shrinkable thin wall tube

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

HEAT SHRINK TECHNOLOGY



SB
Heat shrinkable tube in dispenser box
thin wall, self-extinguishing, shrink ratio 2 : 1, without adhesive

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

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

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Insulating
- Bundling
- Marking
- Corrosion protection
- Mechanical protection

Material

- Cross-linked polyolefin
- Free of lead and cadmium

Test standards

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

Scope of delivery

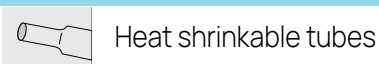
Thin wall heat shrinkable tube in dispenser box

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

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

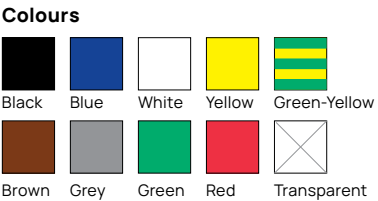
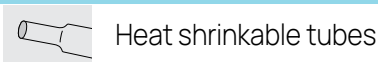
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HEAT SHRINK TECHNOLOGY



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

HEAT SHRINK TECHNOLOGY



SB
Heat shrinkable tube in dispenser box
thin wall, self-extinguishing, shrink ratio 3 : 1, without adhesive

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

Note

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

Storage conditions/Shelf life

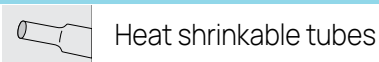
- Unlimited shelf life

- Application/Suitability**
- Insulating
 - Bundling
 - Marking
 - Corrosion protection
 - Mechanical protection
- Material**
- Cross-linked polyolefin
 - Free of lead and cadmium
- Test standards**
- Approved according to UL File No.: E 172094
 - Corresponds to MIL-I-23053/5 class 1

Scope of delivery
Thin wall heat shrinkable tube in dispenser box
Note: A standard spool may include sections which have been tied together.

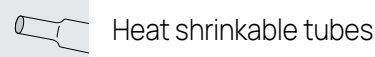
Type		L m	Inner-Ø mm		Recovered wall thickness mm	Art.-No.
			before shrinking	after shrinking		
Colour: Black						
SB	1.5-0.5	15	1.5	0.5	0.45	127097
	3.0-1.0	15	3	1	0.55	127104
	6.0-2.0	10	6	2	0.65	127111
	9.0-3.0	10	9	3	0.75	127118
	12.0-4.0	8	12	4	0.75	127125
	18.0-6.0	7	18	6	0.75	127132
	24.0-8.0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

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

HEAT SHRINK TECHNOLOGY



Heat shrinkable tubes



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

Characteristics

- Practice-oriented product assortment

Note

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

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- For marking and insulation of cables and conductors
- Corrosion protection
- Mechanical protection

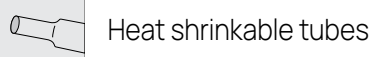
Test standards

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

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

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

Type	Art.-No.
MBS1	144420



Heat shrinkable tubes



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

Characteristics

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

Note

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

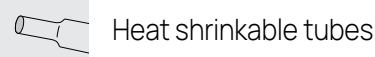
Application/Suitability

- 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



Heat shrinkable tubes



Colours
Black

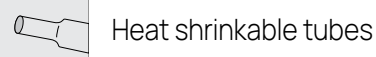
SRUM
Heat shrinkable medium wall tube
self-extinguishing, flexible, shrink ratio 3 : 1 or 4 : 1, with adhesive

- Characteristics**
 - Medium wall
 - Inscribable
 - Resistant to chemical agents
 - Stabilized against UV rays
 - Free from paint-wetting inhibiting substances
 - Non-corrosive
 - Infusible
 - High flexibility
 - Superior electrical properties
 - High tensile strength
 - Resistant to cold flow (thermally stable)
 - Self-extinguishing
- Storage conditions/Shelf life**
 - Unlimited shelf life
- Application/Suitability**
 - Insulating
 - Bundling
 - Corrosion protection
 - Mechanical protection
- Material**
 - Cross-linked polyolefin
 - Free of lead and cadmium
- Test standards**
 - Corresponds to MIL-I-23053/4

Scope of delivery
Medium wall heat shrinkable tube, on spool or in lengths
Note: A standard spool may include sections which have been tied together. Other lengths available on request.

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

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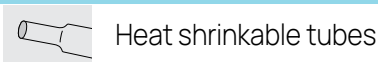


Heat shrinkable tubes

→ Continuation
SRUM
Heat shrinkable medium wall tube

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

HEAT SHRINK TECHNOLOGY



Heat shrinkable tubes



Colours



Black Green-Yellow

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

- Characteristics**

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

 - Unlimited shelf life

Application/Suitability

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

Material

 - Cross-linked polyolefin
 - Free of lead and cadmium

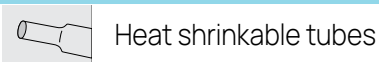
Test standards

 - Corresponds to IEC 60684-2

Scope of delivery
Medium wall heat shrinkable tube, on spool or in lengths
Note: A standard spool may include sections which have been tied together. Other lengths available on request.

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

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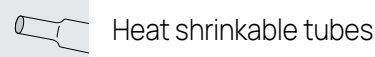
Heat shrinkable tubes

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

→ 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	50 %	IEC 60684-2
expanded recovered	85 %	
Thermal properties		
Operating temperature range	-40 °C up to 120 °C	IEC 60684-2
Shrinkage temperature	> 125 °C	IEC 60684-2 method C
Burning behaviour	not self-extinguishing	
Flexibility at low temperatures	-40 °C	IEC 60684-2
Thermal ageing (168 h at 150 °C)		
Elongation at break	250 %	IEC 60684-2
Tensile strength at break	12 MPa	
Electrical properties		
Dielectric strength	25 kV/mm	IEC 60684-2
Specific volume resistivity	10 ¹⁴ Ω x cm	IEC 60684-2
Chemical properties		
Corrosion	None	IEC 60684-2
Resistance to fungus and decay	Rate 1	IEC 60684-2

HEAT SHRINK TECHNOLOGY



Heat shrinkable tubes



Colours



Black

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

Characteristics

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

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

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

Material

- Cross-linked polyolefin
- Free of lead and cadmium

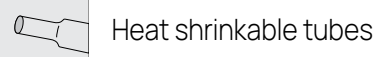
Test standards

- Corresponds to IEC 60684-2

Scope of delivery
Medium wall heat shrinkable tube in lengths
Note: Other lengths available on request.

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

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



Heat shrinkable tubes



Colours



Black

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

Characteristics

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

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

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

Material

- Cross-linked polyolefin
- Free of lead and cadmium

Test standards

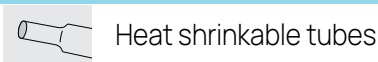
- Corresponds to IEC 60684-2

Scope of delivery
Thick wall heat shrinkable tube in lengths
Note: Other lengths available on request.

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

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HEAT SHRINK TECHNOLOGY

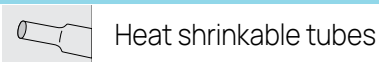


Heat shrinkable tubes

→ Continuation

SR3, SRH3
Heat shrinkable thick wall tube

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



Heat shrinkable tubes



Colours



Black

SRFH3
Heat shrinkable thick wall tube
self-extinguishing, shrink ratio 3 : 1, with adhesive

- Characteristics**

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

 - Unlimited shelf life

Application/Suitability

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

Material

 - Cross-linked polyolefin
 - Free of lead and cadmium

Test standards

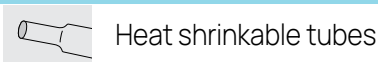
 - Corresponds to IEC 60684-2

Scope of delivery
Thick wall heat shrinkable tube in lengths
Note: Other lengths available on request.

Type		L m	Inner-Ø mm		Recovered wall thickness mm	Art.-No.
			before shrinking	after shrinking		
Lengths 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	50 %	IEC 60684-2
recovered	85 %	
Thermal properties		
Operating temperature range	-40 °C up to 120 °C	IEC 60684-2
Shrinkage temperature	> 125 °C	IEC 60684-2 method C
Burning behaviour	self-extinguishing	
Flexibility at low temperatures	-40 °C	
Thermal ageing (168 h at 150 °C)		
Elongation at break	250 %	IEC 60684-2
Tensile strength at break	12 MPa	
Electrical properties		
Dielectric strength	25 kV/mm	IEC 60684-2
Specific volume resistivity	10 ¹⁴ Ω x cm	IEC 60684-2
Chemical properties		
Corrosion	None	IEC 60684-2
Resistance to fungus and decay	Rate 1	IEC 60684-2

HEAT SHRINK TECHNOLOGY



Heat shrinkable tubes



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

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

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

- Storage conditions/Shelf life**
- Unlimited shelf life
- Application/Suitability**
- Telecommunications terminal block system
- Material**
- Cross-linked polyolefin
 - Free of lead and cadmium
- Test standards**
- Corresponds to IEC 60684-2



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	25	7	3.1	146123
	32-8	32	8	3.2	146124

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



Moulded parts

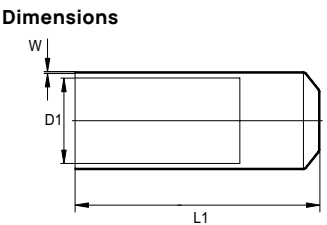


SKH
Heat shrinkable end cap
with hot-melt adhesive

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

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

- Storage conditions/Shelf life**
- Unlimited shelf life
- Application/Suitability**
- Protection against moisture and pressure for cables, conductors and pipes
- Note**
- Length tolerance max. ±10 % in fully recovered condition
- Material**
- Cross-linked polyolefin
- Test standards**
- Based on: IEC 62677-3-101



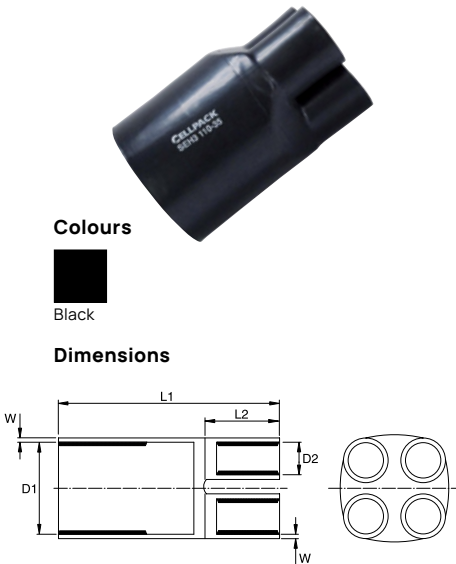
Scope of delivery
Heat shrinkable end cap

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	min. 200 %	
Tensile strength at break	min. 8 MPa	EN 62677-2 or EN ISO 527-2
Electrical properties		
Dielectric strength	min. 10 kV/mm	EN 60243-1
Specific volume resistivity	min. 10 ¹⁵ Ω x cm	EN 62677-2

HEAT SHRINK TECHNOLOGY



SEH
Heat shrinkable spreader cap
for 2-, 3-, 4-, 5-core cables and conductors, with hot-melt adhesive
Sealing spreader caps for plastic-, rubber- and paper-insulated cables.

- Colours**

Black
- Dimensions**
- Characteristics**

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

 - Unlimited shelf life
- Application/Suitability**

 - Protection against moisture and pressure for cables, conductors and pipes
- Note**

 - Length tolerance max. $\pm 10\%$ in fully recovered condition
- Material**

 - Cross-linked polyolefin
- Test standards**

 - Based on: IEC 62677-3-101

Scope of delivery
Heat shrinkable spreader cap

Type		L1 mm	L1* mm	L2 mm	Inner-Ø D1 mm		Inner-Ø D2 mm		W* Recovered wall thickness mm	Nominal cross section mm²	Art.-No.
					before shrinking	after shrinking	before shrinking	after shrinking			
2-fingers spreader cap											
SEH2	30-10	67	89	17	30	10	16	3,7	3,1	2,5 - 25	125374
	50-24	86	120	24	50	24	21	7	3	25 - 120	169475
	60-20	103	130	33	60	20	45 / 32	18 / 6	3,5	95 - 150	125373
3-fingers spreader cap											
SEH3	25-9	52	70	16	25	9	9	3	2,5	1,5 - 16	169471
	35-15	87	100	22	35	15	13	4	2,5	6 - 35	125365
	55-23	134	170	33	55	23	24	7	3,9	35 - 150	169473
	75-28	175	212	36	75	28	35	12	4	120 - 300	186615
	110-35	182	218	45	110	35	51	17	4	185 - 400	169711
	125-59	208	268	51	125	59	67	27	4,4	240 - 500	125371
4-fingers spreader cap											
SEH4	28-9	57	72	16	28	9	8	3	2,5	1,5 - 10	148844
	35-15	81	100	22	35	15	14	4	3,9	6 - 35	143556
	47-23	134	169	36	47	23	20	7	4,1	35 - 95	166973
	60-25	155	177	32	60	25	25	6	3,9	35 - 150	169477
	78-36	172	220	43	78	36	30	12	3,8	95 - 240	166972
	95-36	172	221	50	95	36	35	14	3,9	120 - 300	143563
	150-55	190	245	47	150	55	57	22	4,2	240 - 500	302333
5-fingers spreader cap											
SEH5	35-15	80	100	21	35	15	20	4	2,5	4 - 35	486491
	65-15	84	108	22	65	15	20	4	4,4	4 - 70	222242
	80-33	160	179	49	80	33	27	8	3,4	35 - 150	223131
	100-42	170	198	52	100	42	34	10	3,6	95 - 240	223132

*recovered dimension after shrinking

→ Continued on the next page



→ Continuation
SEH
Heat shrinkable spreader cap

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



Colours

Black

SRMAHV
Heat shrinkable repair sleeve
with adhesive and stainless steel channel

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

- Characteristics**

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

 - Unlimited shelf life

Application/Suitability

 - Sealing
 - Repair of damaged cable sheaths

Material

 - Cross-linked polyolefin
 - Free of lead and cadmium

Test standards

 - Corresponds to IEC 60684-2

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

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

→ Continued on the next page



→ 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



Straight-through joints

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

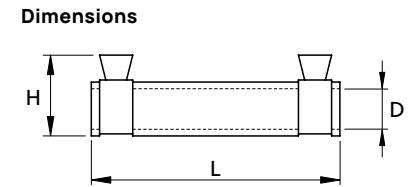
Products	Version		Type of cast resins				
	with screw connector(s)	with branch clamp(s)	EG	GG	CG	FG	UWR
Straight-through joints							
MR 0	-	-	●	-	-	-	-
M...EG	-	-	●	-	-	-	-
M...GG	-	-	-	●	-	-	-
M-Euroline	-	-	●	-	-	-	-
M...V-Euroline	●	-	●	-	-	-	-
MZ	-	-	●	-	-	-	-
MZ...FG	-	-	-	-	-	●	-
PV...EG, PVM...EG, 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
- Storage conditions/Shelf life**

 - Cast resin up to 40 months

Application/Suitability

 - Indoor
 - Outdoor
 - Underground
 - Water
 - Submersible pumps
 - Installation ducts

Voltage level

 - U₀/U (U_m) 0.6/1 (1.2) kV

Test standards

 - DIN EN 50393 (corresponds to VDE 0278)

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

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

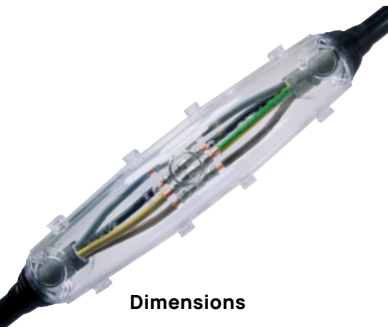
						Polymeric cable					
						unarmoured					
											
						1x	2x	3x	4x	5x	
Type		L mm	D mm	H mm	max. Cable-Ø mm	Nominal cross section per conductor mm²					Art.-No.
MR	02	120	26	40	16	25	6	4	2.5	1.5	124507
	05	180	26	40	16	25	6	4	4	2.5	124508

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

CAST RESIN TECHNOLOGY



Straight-through joints



M...EG

Cast resin straight-through joint

for polymeric cables and conductors, control cables and signal cables

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

Characteristics

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

Storage conditions/Shelf life

- Cast resin up to 40 months

Application/Suitability

- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

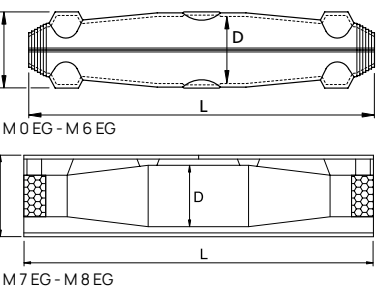
Voltage level

- U_0/U_m 0.6/1 (1.2) kV

Test standards

- DIN EN 50393 (corresponds to VDE 0278)

Dimensions



Scope of delivery

Hydrolysis resistance PUR type EG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, 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										Art.-No.
					unarmoured					with concentric conductor		armoured			
															
					1x	2x	3x	4x	5x	3x	4x	3x	4x		
Type	L mm	D mm	H mm	max. Cable-Ø mm	max. Nominal cross section per conductor mm²										Art.-No.
M	0 EG	185	32	37	15	25	10	6	6	4					124293
	1 EG	240	40	45	22	95	25	16	16	10	10/10				124294
	2 EG	265	45	50	30	185	50	35	25	16	25/25	16/16	16	16	124295
	2.5 EG	310	58	65	37	300	70	70	50	35	35/35	25/25	35	16 - 35	124296
	3 EG	355	70	80	42	400	120	95	70	50	50/50	50/25	50	35 - 50	124297
	4 EG	430	90	98	52	500		120	95	70	95/95	70/35	95	50 - 95	124298
	5 EG	550	110	120	62	1000		240	185	120	150/150	120/70	120	95 - 120	124299
	6 EG	660	145	165	80			300	240	185	240/240	240/120	240	120 - 240	124300
	7 EG	900	150	190	90			400	300	240					124308
8 EG	1100	150	190	90						400/400	300/150	400	300 - 400	124309	

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

Shield continuity wire SVL required for telecommunication cables.

CAST RESIN TECHNOLOGY



Straight-through joints



M...GG

Cast resin straight-through joint

for polymeric cables and conductors, control cables and signal cables

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

Characteristics

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

Storage conditions/Shelf life

- Cast resin up to 24 months

Application/Suitability

- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

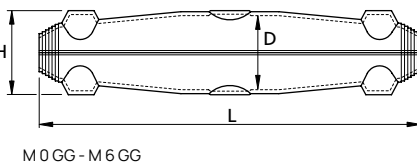
Voltage level

- U_0/U_m 0.6/1 (1.2) kV

Test standards

- DIN EN 50393 (corresponds to VDE 0278)

Dimensions



M 0 GG - M 6 GG

Scope of delivery

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

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

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

						Polymeric cable											Art.-No.	
						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.

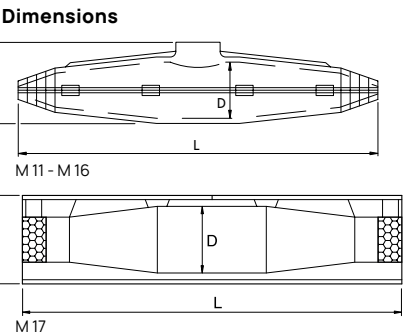
CAST RESIN TECHNOLOGY

 Straight-through joints



M-Euroline
Cast resin straight-through joint
for polymeric cables and conductors

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



Characteristics

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

Storage conditions/Shelf life

- Cast resin up to 40 months

Application/Suitability

- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level

- $U_0/U (U_m)$ 0.6/1 (1.2) kV

Test standards

- DIN EN 50393 (corresponds to VDE 0278)

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.

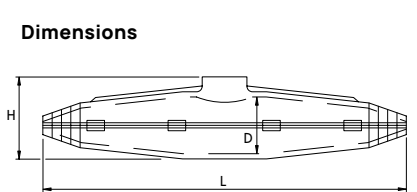
						Polymeric cable							
						unarmoured				with concentric conductor		armoured	
													
						1x	3x	4x	5x	3x	4x	4x	
Type		L mm	D mm	H mm	max. Cable-Ø mm	max. Nominal cross section per conductor mm²							Art.-No.
M	11	190	36	50	26	50	10	10	6	10/10		4	124169
	12	260	47	63	34	150	25	25	16	25/25	16/16	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

 Straight-through joints



M...V-Euroline
Cast resin straight-through joint
with screw connectors, for polymeric cables and conductors

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



Characteristics

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

Storage conditions/Shelf life

- Cast resin up to 40 months

Application/Suitability

- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level

- $U_0/U (U_m)$ 0.6/1 (1.2) kV

Test standards

- DIN EN 50393 (corresponds to VDE 0278)

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							
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	

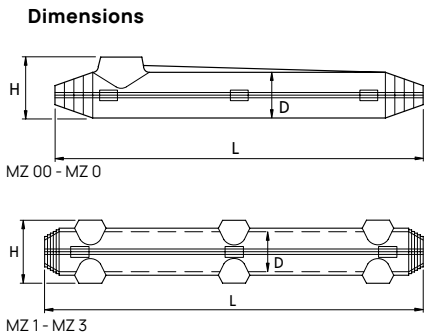
CAST RESIN TECHNOLOGY

 Straight-through joints



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

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



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

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

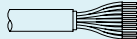
- Application/Suitability**
- Indoor
 - Outdoor
 - Underground
 - Water
 - Installation ducts

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

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

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.

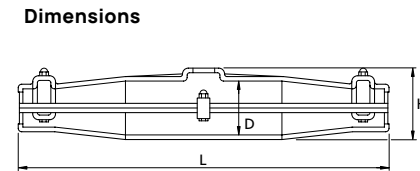
CAST RESIN TECHNOLOGY

 Straight-through joints



PVM...EG, PVS...EG
Cast resin straight-through joint
with integrated strain relief, for polymeric cables and conductors, with cast resin EG

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



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

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

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

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

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

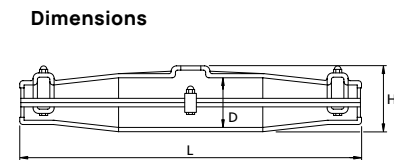
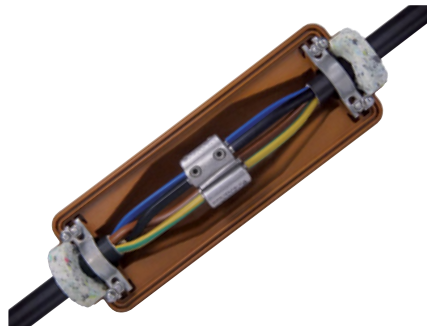
Scope of delivery
Hydrolysis resistance PUR type EG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, sealing gaskets, plastic shell, protective gloves, strain relief, assembly instructions

Optional accessory: Connectors (see Connecting technology)
Cleaner UNIVERSAL CLEANER 121 (see Accessories)

						Polymeric cable				Art.-No.
						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.
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

CAST RESIN TECHNOLOGY

 Straight-through joints



PVS...GG
Cast resin straight-through joint
with integrated strain relief, for polymeric cables and conductors, with cast resin GG (reduced hazard-class)

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

- Characteristics**
 - Compact dimensions
 - High-quality brown shockproof plastic shell
 - Integrated strain relief
 - Large filler aperture to facilitate casting
 - Resistant to chemical agents
 - Resistant to alkaline earth elements
 - Stabilized against UV rays
 - Longitudinally and transversely watertight
 - High electrical insulating values
 - High mechanical strength
 - Ready for immediate operation
 - Quick and easy assembly saves time and reduces costs
- Storage conditions/Shelf life**
 - Cast resin up to 40 months
- Application/Suitability**
 - Indoor
 - Outdoor
 - Underground
 - Water
 - Installation ducts
- Voltage level**
 - U_0/U (U_m) 0.6/1 (1.2) kV
- Test standards**
 - DIN EN 50393 (corresponds to VDE 0278)

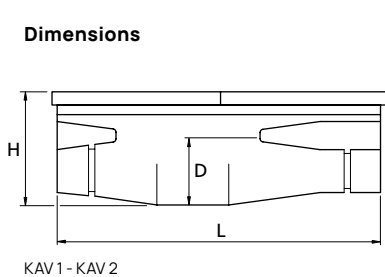
Scope of delivery
Hydrolysis resistance PUR type GG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, sealing gaskets, plastic shell, protective gloves, strain relief, assembly instructions

Optional accessory: Connectors (see Connecting technology)
Cleaner UNIVERSAL CLEANER 121 (see Accessories)

						Polymeric cable				Art.-No.
						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	

CAST RESIN TECHNOLOGY

 Branch joints



KAV
Cast resin branch joint
for polymeric cables and conductors

Universally suitable for branching cables and conductors insulated with PVC, PE and XLPE (e.g. N(A)YY, GKN). Suitable for cable branch clamps / ring clamps and compression connectors on copper and aluminium conductors.

- Characteristics**
 - Compact dimensions
 - Splice area visible before casting
 - High-quality transparent shockproof plastic shell
 - Large filler aperture to facilitate casting
 - Resistant to chemical agents
 - Resistant to alkaline earth elements
 - Stabilized against UV rays
 - Longitudinally and transversely watertight
 - High electrical insulating values
 - High mechanical strength
 - Ready for immediate operation
 - Quick and easy assembly saves time and reduces costs
- Storage conditions/Shelf life**
 - Cast resin up to 40 months
- Application/Suitability**
 - Indoor
 - Outdoor
 - Underground
 - Water
 - Installation ducts
- Voltage level**
 - U_0/U (U_m) 0.6/1 (1.2) kV
- Test standards**
 - DIN EN 50393 (corresponds to VDE 0278)

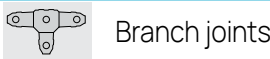
Scope of delivery
Hydrolysis resistance PUR type EG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, sealing gaskets, transparent plastic shell with locking bar, sealing tape, protective gloves, assembly instructions

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						Art.-No.
					unarmoured			armoured			
											
					4x			4x			
Type		L mm	D mm	H mm	max. Cable-Ø mm		Nominal cross section per conductor mm²				
					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

CAST RESIN TECHNOLOGY



Branch joints



H
Cast resin branch joint
for polymeric cables and conductors

Universally suitable for branching cables and conductors insulated with PVC, PE and XLPE (e.g. N(A)YY, TT...). Suitable for assembly of individual one-core branch clamps according to type (split bolt clamps for H 1 and H 2) or branch clamps (H 5...and H 6) and compression or screw connectors.

Characteristics

- Compact dimensions
- Splice area visible before casting
- High-quality transparent shockproof plastic shell
- Can be used as double-branch joint (H 1 and H 2)
- Large filler aperture to facilitate casting
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Longitudinally and transversely watertight
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation
- Quick and easy assembly saves time and reduces costs

Storage conditions/Shelf life

- Cast resin up to 40 months

Application/Suitability

- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level

- $U_0/U (U_m)$ 0.6/1 (1.2) kV

Test standards

- DIN EN 50393 (corresponds to VDE 0278)

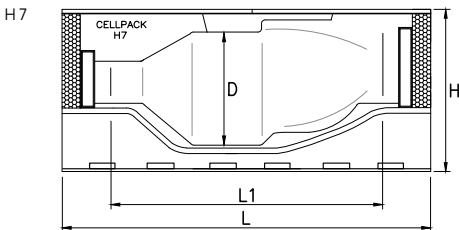
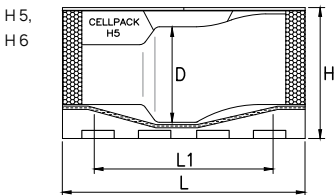
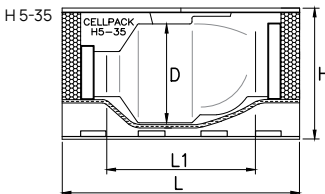
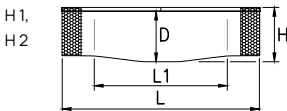
Scope of delivery

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).

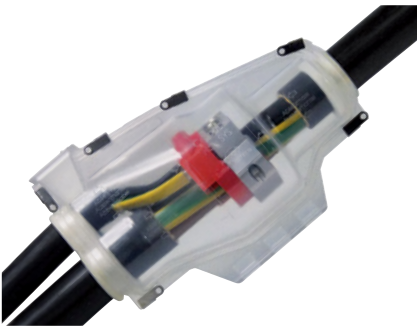
Dimensions



								Polymeric cable				Art.-No.
								unarmoured		with concentric conductor		
												
								4x		3x		
Type		L mm	L1 mm	D mm	H mm	max. Cable-Ø mm		Nominal cross section per conductor mm²				
						Main cable	Branch cable	Main cable	Branch cable	Main cable	Branch cable	
H	1	235	155	60	70	25	20	16	6			124789
	2	270	180	60	80	32	22	16 - 25	6 - 10			124790
	5	300	246	115	170	50	32	95 - 150	16 - 50			124787
	5-35	290	180	135	185	52	36	95 - 150	16 - 70			124815
	6	350	296	135	190	55	39	120 - 185	50 - 70	120/70 - 150/70	35/16 - 70/35	124788
	7	490	330	180	230	59	54	95 - 240	70 - 150	95/95 - 240/240	70/70 - 150/150	124786



Branch joints



H 5-SYS
Cast resin branch joint for house connections
with branch clamp, for unarmoured polymeric cables

For branching of cables with insulation made of PVC, PE and XLPE (e.g. N(A)YY, GN-CLN...). With branch clamp, suitable for copper and aluminium conductors.

Characteristics

- High-quality transparent shockproof plastic shell
- Cast resin can be poured in with an angle up to 45° or laterally up to 45°
- Compatible with a branching system with specific contact geometry designed to facilitate connection of branch cable in visible area, ensuring safe handling
- Easy seal application
- Large filler aperture to facilitate casting
- Can be installed / operated while under voltage
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation
- Quick and easy assembly saves time and reduces costs

Storage conditions/Shelf life

- Cast resin up to 24 months

Application/Suitability

- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

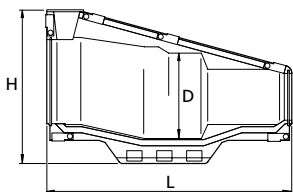
Voltage level

- $U_0/U (U_m)$ 0.6/1 (1.2) kV

Test standards

- DIN EN 50393 (corresponds to VDE 0278)

Dimensions

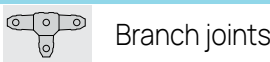


Scope of delivery

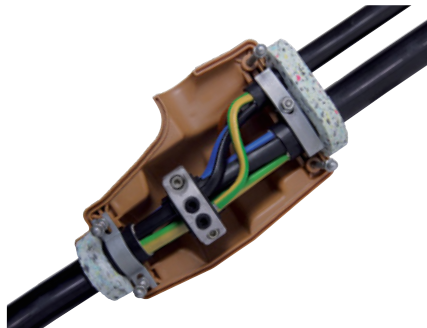
Hydrolysis resistance PUR type UWR cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, transparent plastic shell, branch clamp HE 1/70/150, sealing tapes, protective gloves, assembly instructions

Optional accessory: Cleaner UNIVERSAL CLEANER 121 (see Accessories)

								Polymeric cable			Art.-No.
								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

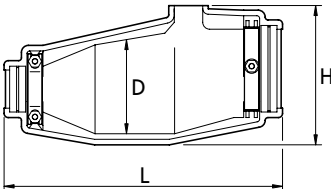


Branch joints

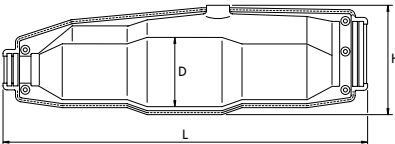


Dimensions

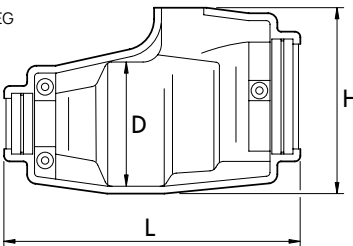
P 3 EG,
PC 5 EG,
PC 7 EG



PB 4 EG,
PE 7 EG



P 4 EG - P 7 EG



P...EG
Cast resin branch joint

with integrated strain relief, for polymeric cables and mass-impregnated paper cables, with cast resin EG

Universally suitable for branching polymeric cables insulated with PVC, PE, XLPE and paper (e.g. N(A)YY, N(A)KBA, GN-CLN, TT) with or without concentric conductor and mass-impregnated paper cables. Suitable for branch clamps on copper and aluminium conductors.

Characteristics

- High-quality brown shockproof plastic shell
- Compact design
- Integrated strain relief
- Large filler aperture to facilitate casting
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Longitudinally and transversely watertight
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation
- Quick and easy assembly saves time and reduces costs

Storage conditions/Shelf life

- Cast resin up to 40 months

Application/Suitability

- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level

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

Test standards

- DIN EN 50393 (corresponds to VDE 0278)

Scope of delivery

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

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

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

→ Continued on the next page



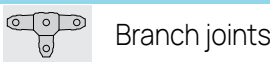
Branch joints

→ 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

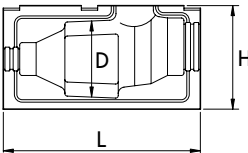


Branch joints

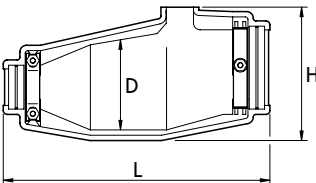


Dimensions

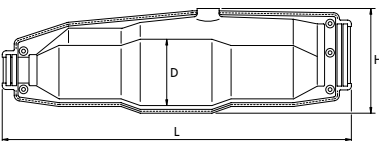
P 2 GG



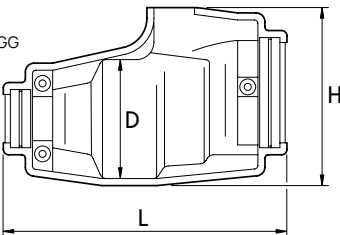
P 3 GG,
PC 5 GG



PB 4 GG,
PE 7 GG



P 5 GG - P 7 GG



P...GG
Cast resin branch joint

with integrated strain relief, for polymeric cables and mass-impregnated paper cables, with cast resin GG (reduced hazard-class)

Universally suitable for branching polymeric cables insulated with PVC, PE, XLPE and paper (e.g. N(A)YY, N(A)KBA, GN-CLN, TT) with or without concentric conductor and mass-impregnated paper cables. Suitable for branch clamps on copper and aluminium conductors.

Characteristics

- High-quality brown shockproof plastic shell
- Compact design
- Integrated strain relief
- Large filler aperture to facilitate casting
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Longitudinally and transversely watertight
- High electrical insulating values
- High mechanical strength
- Ready for immediate operation
- Quick and easy assembly saves time and reduces costs

Storage conditions/Shelf life

- Cast resin up to 24 months

Application/Suitability

- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level

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

Test standards

- DIN EN 50393 (corresponds to VDE 0278)

Scope of delivery

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

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

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

→ Continued on the next page



Branch joints

→ 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	10 - 16	10 - 16	2.5 - 16	2.5 - 16	329587
	3 GG	342	90	160	15 - 35	12 - 30			10 - 25	4 - 16	329589
	5 GG	325	135	200	37 - 54	20 - 36			95 - 150	16 - 50	329567
	6 GG	432	135	210	44 - 59	28 - 45			150 - 185	50 - 95	329569
	7 GG	442	150	245	40 - 59	40 - 59			120 - 185	120 - 150	329588
PC	5 GG	392	130	210	35 - 54	20 - 36			95 - 185	16 - 50	335566
PB	4 GG	532	120	200	30 - 50	27 - 44	95 - 150	95 - 150	95 - 150	50 - 95	329572
PE	7 GG	692	180	285	40 - 59	40 - 59			150 - 240	120 - 185	335565

						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	10/10 - 16/16	4/4 - 16/16	10/10 - 16/16	4/4 - 16/16	329587
	3 GG	342	90	160	15 - 35	12 - 30					329589
	5 GG	325	135	200	37 - 54	20 - 36					329567
	6 GG	432	135	210	44 - 59	28 - 45					329569
	7 GG	442	150	245	40 - 59	40 - 59					329588
PC	5 GG	392	130	210	35 - 54	20 - 36	95/95 - 150/150	16/16 - 50/50	95/95 - 150/150	16/16 - 50/50	335566
PB	4 GG	532	120	200	30 - 50	27 - 44		50/50 - 95/95		50/25 - 95/50	329572
PE	7 GG	692	180	285	40 - 59	40 - 59					335565

CAST RESIN TECHNOLOGY



Branch joints



T...EG Cast resin branch joint

for polymeric cables and conductors

Universally suitable for branching polymeric cables or conductors insulated with PVC, PE, XLPE and EPR (e.g. N(A)YY, NYM, TT) with or without concentric conductor. Suitable for branch clamps on copper and aluminium conductors.

Characteristics

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

Storage conditions/Shelf life

- Cast resin up to 40 months

Application/Suitability

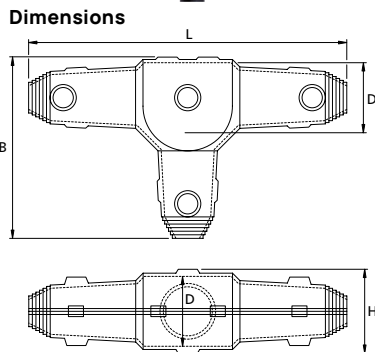
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level

- $U_0/U (U_m)$ 0.6/1 (1.2) kV

Test standards

- DIN EN 50393 (corresponds to VDE 0278)



Scope of delivery

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

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

							Polymeric cable						Art.-No.
							unarmoured						
													
							3x		4x		5x		
Type		L mm	B mm	D mm	H mm	max. Cable-Ø mm	max. Nominal cross section per conductor mm²						
							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

							Polymeric cable				Art.-No.
							with concentric conductor				
											
							3x		4x		
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		
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



Branch joints



T...GG Cast resin branch joint

for polymeric cables and conductors

Universally suitable for branching polymeric cables or conductors insulated with PVC, PE, XLPE and EPR (e.g. N(A)YY, NYM, TT) with or without concentric conductor. Suitable for branch clamps on copper and aluminium conductors.

Characteristics

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

Storage conditions/Shelf life

- Cast resin up to 24 months

Application/Suitability

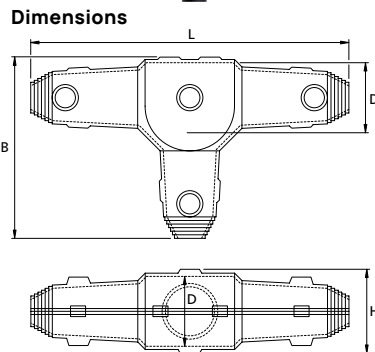
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level

- $U_0/U (U_m)$ 0.6/1 (1.2) kV

Test standards

- DIN EN 50393 (corresponds to VDE 0278)



Scope of delivery

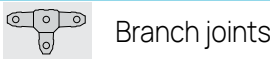
Hydrolysis resistance PUR type GG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, transparent plastic shell, fill and air-release funnels, PVC insulation tape, protective gloves, assembly instructions

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

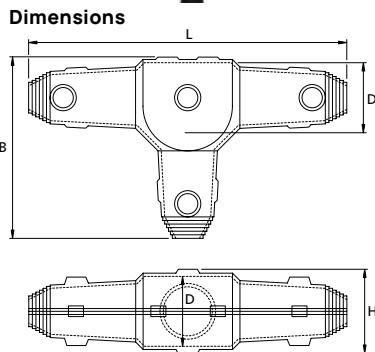
							Polymeric cable						Art.-No.
							unarmoured						
													
							3x		4x		5x		
Type		L mm	B mm	D mm	H mm	max. Cable-Ø mm	max. Nominal cross section per conductor mm²						
							Main cable	Branch cable	Main cable	Branch cable	Main cable	Branch cable	
T	1GG	240	138	50	60	22	10	10	6	6	4	4	353846
	2GG	267	154	60	70	30	25	25	16	10	10	10	353847
	2.5GG	310	183	75	85	37	50	50	35	16	16	10	353848
	3GG	354	212	90	100	42	70	70	50	25	25	16	353849
	4GG	432	262	110	125	52	120	120	95	50	50	35	353860

							Polymeric cable				Art.-No.
							with concentric conductor				
											
							3x	4x			
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	
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

CAST RESIN TECHNOLOGY



Branch joints



T...V FKM

Cast resin branch joint

with split bolt branch clamps, for polymeric cables and conductors
Universally suitable for branching polymeric cables or conductors insulated with PVC, PE, XLPE and EPR (e.g. N(A)YY, NYM). With one-core branch clamps, suitable for copper and aluminium conductors.

Characteristics

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

Storage conditions/Shelf life

- Cast resin up to 40 months

Application/Suitability

- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level

- $U_0/U (U_m)$ 0.6/1 (1.2) kV

Test standards

- DIN EN 50393

Scope of delivery

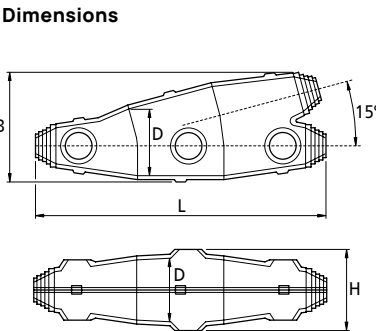
Hydrolysis resistance PUR type EG cast resin (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, transparent plastic shell, fill and air-release funnels, screw branch clamps, PVC insulation tape, protective gloves, assembly instructions

Optional accessory: Cleaner UNIVERSAL CLEANER 121 (see Accessories)

								Polymeric cable				Art.-No.
								unarmoured				
												
								4x		5x		
Type		L mm	B mm	D mm	H mm	Cable-Ø mm		Nominal cross section per conductor mm²				
						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



Branch joints



Y 0 EG, Y 3.5 EG, Y 6 EG

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

Storage conditions/Shelf life

- Cast resin up to 40 months

Application/Suitability

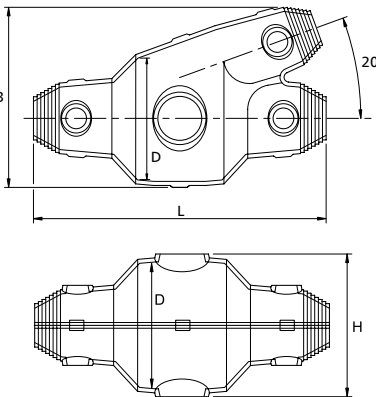
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level

- $U_0/U (U_m)$ 0.6/1 (1.2) kV

Test standards

- DIN EN 50393 (corresponds to VDE 0278)



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

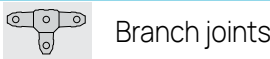
Scope of delivery

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, closing stops, fill and air-release funnels, PVC insulation tape, protective gloves, assembly instructions

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

→ Continued on the next page

CAST RESIN TECHNOLOGY



Branch joints

→ Continuation

Y...EG
Cast resin branch joint

								Polymeric cable						Art.-No.
								unarmoured						
														
								3x		4x		5x		
Type		L mm	B mm	D mm	H mm	max. Cable-Ø mm		max. Nominal cross section per conductor mm²						
						Main cable	Branch cable	Main cable	Branch cable	Main cable	Branch cable	Main cable	Branch cable	
Y	00 EG	150	75	38	50	19	19	4	2.5	4	2.5	4	2.5	133841
	0 EG	185	80	45	55	17	17	6	6	6	6	6	6	152932
	1 EG	240	110	60	70	22	22	10	10	10	10	10	10	124730
	2 EG	285	120	65	75	34	30	25	25	25	25	25	25	147533
	3 EG	240	145	100	110	42	37	50	25	50	35	25	25	131123
	3.5 EG	300	150	110	120	54	38	70	25	50	35	35	35	131118
	4 EG	285	170	110	120	53	37	95	35	95	50	50	35	124763
	4.5 EG	335	193	120	130	56	42	150	70	150	70	120	70	131119
	5 EG	382	220	140	150	62	52	240	150	240	95	150	95	157645
6 EG	570	275	180	190	90	80	300	240	300	185	150	150	131126	

								Polymeric cable				
								with concentric conductor				
												
								3x				
Type		L mm	B mm	D mm	H mm	max. Cable-Ø mm		max. Nominal cross section per conductor mm²				Art.-No.
						Main cable	Branch cable	Main cable		Branch cable		
Y	00 EG	150	75	38	50	19	19					133841
	0 EG	185	80	45	55	17	17	6/6		6/6		152932
	1 EG	240	110	60	70	22	22	10/10		10/10		124730
	2 EG	285	120	65	75	34	30	16/16		10/10		147533
	3 EG	240	145	100	110	42	37	25/25		16/16		131123
	3.5 EG	300	150	110	120	54	38	35/35		25/25		131118
	4 EG	285	170	110	120	53	37	70/70		25/25		124763
	4.5 EG	335	193	120	130	56	42	120/120		95/95		131119
	5 EG	382	220	140	150	62	52	150/150		95/95		157645
	6 EG	570	275	180	190	90	80	240/120		185/95		131126



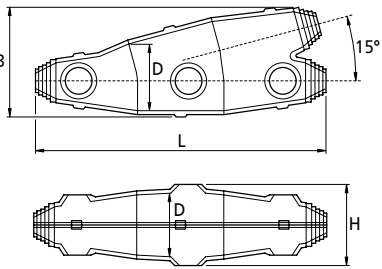
Branch joints



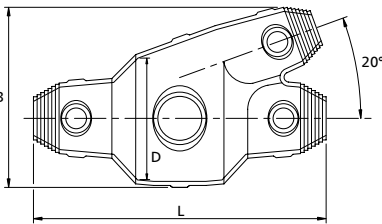
Y...GG
Cast resin branch joint
for polymeric cables and conductors

Universally suitable for branching polymeric cables or conductors insulated with PVC, PE, XLPE and EPR (e.g. N(A)YY, NYM, TT) with or without concentric conductor. Suitable for branch clamps on copper and aluminium conductors.

Dimensions



Y 0 GG



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

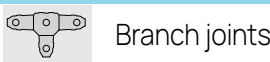
- Characteristics**
- Compact dimensions
 - Splice area visible before casting
 - High-quality transparent shockproof plastic shell
 - Large filler aperture to facilitate casting
 - Resistant to chemical agents
 - Resistant to alkaline earth elements
 - Stabilized against UV rays
 - Longitudinally and 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)

→ Continued on the next page



→ Continuation
Y...GG
Cast resin branch joint

								Polymeric cable						Art.-No.
								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

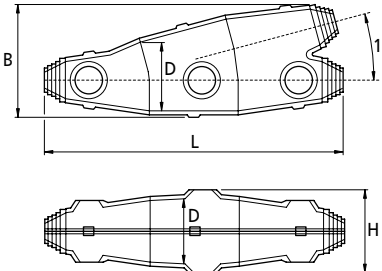


Y...V FKM
Cast resin branch joint
with split bolt branch clamps, for polymeric cables and conductors

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.



Dimensions



Characteristics

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

Storage conditions/Shelf life

- Cast resin up to 40 months

Application/Suitability

- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level

- U_0/U_m 0.6/1 (1.2) kV

Test standards

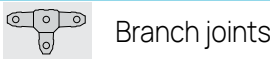
- DIN EN 50393

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

Optional accessory: Cleaner UNIVERSAL CLEANER 121 (see Accessories)

								Polymeric cable				Art.-No.
								unarmoured				
												
								4x		5x		
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	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

CAST RESIN TECHNOLOGY

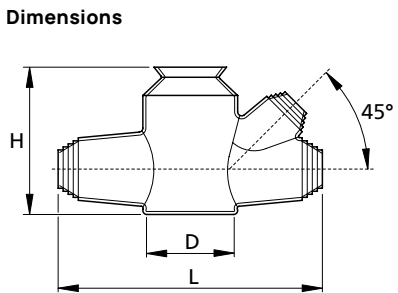


Branch joints



YCP
Cast resin branch joint
for polymeric cables and conductors

Suitable for branching the 1-core cables or conductors, e.g. wires for cathodic corrosion protection from chemical and electrochemical reactions in underground area and under water. Pipes, warehouse containers, electric supply lines and other metal constructions are economically and effectively protected against passive corrosion (polymeric casings, mastic glass fibre casings). Suitable for branch clamps on copper and aluminium conductors.



- Characteristics**

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

 - Cast resin up to 40 months

Application/Suitability

 - Indoor
 - Outdoor
 - Underground
 - Water
 - Installation ducts

Voltage level

 - U₀/U (U_m) 0.6/1 (1.2) kV

Test standards

 - DIN EN 50393 (corresponds to VDE 0278)

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

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

Polymeric cable unarmoured									
1x									
Type	L mm	B mm	D mm	H mm	max. Cable-Ø mm		Nominal cross section per conductor mm²		Art.-No.
					Main cable	Branch cable	Main cable	Branch cable	
YCP	135	48	44	75	23	20	10 - 50	4 - 50	124683

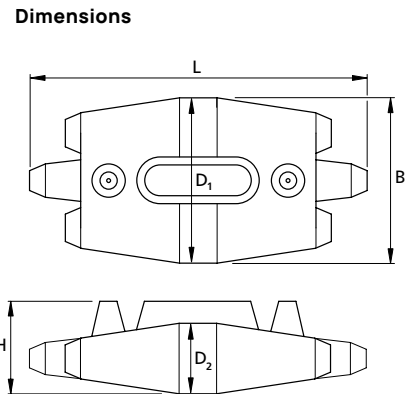


Branch joints



D1
Cast resin branch / straight-through joint
particularly for small cross sections for polymeric cables and conductors, control cables and signal cables

The parallel-branch joint (dual connection joint) is suitable for branching polymeric cables or conductors mainly used for 1-core special cables for airport runways lighting. Suitable for compression connectors on copper conductors.



- Characteristics**

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

 - Cast resin up to 40 months

Application/Suitability

 - Indoor
 - Outdoor
 - Underground
 - Water
 - Installation ducts

Voltage level

 - U₀/U (U_m) 0.6/1 (1.2) kV - 5KV DC

Test standards

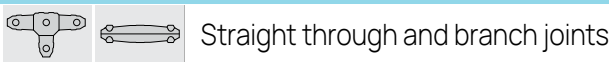
 - DIN EN 50393 (corresponds to VDE 0278)

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

Optional accessory: Compression connectors (see Connecting technology)
Cleaner UNIVERSAL CLEANER 121 (see Accessories)

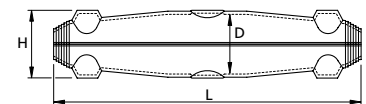
Polymeric cable unarmoured									
1x4x									
Type	L mm	B mm	D1 mm	D2 mm	H mm	max. Cable-Ø mm	Nominal cross section per conductor mm²		Art.-No.
D1	185	90	84	30	48	16	6	2.5	124685

Control and signal cable									
0.6 mm0.8 mm0.75 mm²1.5 mm²									
Type	L mm	B mm	D1 mm	D2 mm	H mm	max. Cable-Ø mm	Number of wire pairs		Art.-No.
D1	185	90	84	30	48	16	6 - 10	6 - 6	124685

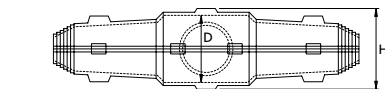
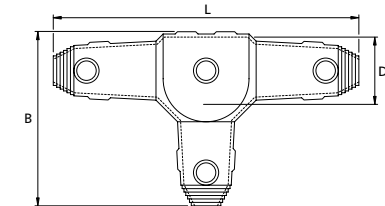


Dimensions

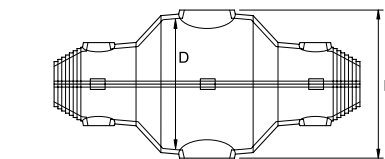
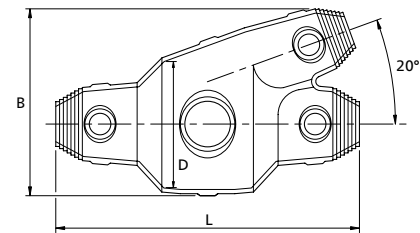
Dimensions M1



Dimensions T1



Dimensions T1



M1, T1 and Y1
Cast resin straight-through and branch joints

with WAGO COMPACT Splicing Connectors of the series 221, for polymeric cables

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

Characteristics

- High-quality transparent shockproof plastic shell
- With WAGO COMPACT Splicing Connectors of the series 221
- Quick and easy assembly saves time and reduces costs
- Ready for immediate operation
- Durable protection from moisture / waterproof
- Splice area visible before casting
- Compact dimensions of the joint
- Large filler aperture to facilitate casting
- Resistant to chemical agents
- Resistant to alkaline earth elements
- Stabilized against UV rays
- Longitudinally and transversely watertight
- High electrical insulating values
- High mechanical strength
- Not harmful to the environment

Storage conditions/Shelf life

- Cast resin up to 40 months

Application/Suitability

- Outdoor applications
- Interiors with high humidity exposure
- Public buildings, Underground and outdoor

Voltage level

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

Test standards

- DIN EN 50393



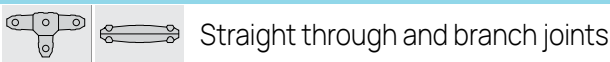
Scope of delivery

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

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

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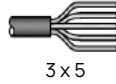
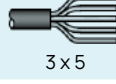
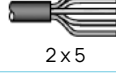


→ Continuation

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



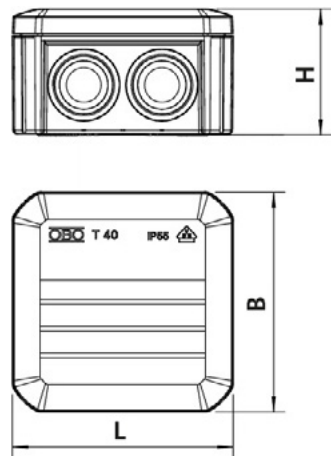
CAST RESIN TECHNOLOGY



Universal connection and branch boxes



Dimensions



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

Storage time/shelf life

- Cast resin up to 24 months

Application/suitability

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

Voltage level

- 230/400 V

Test standards

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



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

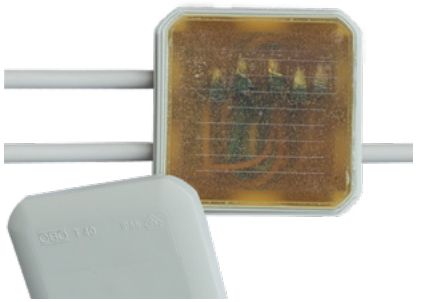
Technical data	OBO BETTERMANN cable junction box type		
	T40	T60	T100
Dimension (LxBxH) mm	77x77x46	100x100x48	136x102x57
	inside	90x90x52	114x114x57
outside			150x116x67
Entry point	7 x M20	7 x M20	10 x M20
Cover catch	Snap closure	Screw cap	Screw cap

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

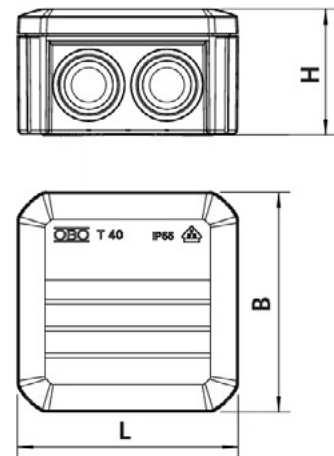
CAST RESIN TECHNOLOGY



Universal connection and branch boxes



Dimensions



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

Storage conditions/Shelf life

- Cast resin up to 24 months

Application/Suitability

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

Voltage level

- 230/400 V

Test standards

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

Scope of delivery

250 ml 2-component hydrocarbon resin CG (containing the correct volume ready for mixing), packed in practical and easy-to-use two-chamber bags, box with membran entries, 5 clamps 5-pole 0.5 - 2.5 mm², 12 cable retaining rings CP-Z1, funnel for easy vertical filling, emery cloth, assembly instructions

Optional accessory: Cleaner UNIVERSAL CLEANER 121 (see Accessories)

Note: Type CG cast resin refills may be ordered separately.

						Polymeric cable unarmoured	
Type		L mm	B mm	H mm	max. Cable-Ø mm	Nominal cross section per conductor mm²	Art.-No.
Universalbox CG	250 ml	90	90	52	20	0,5 - 2,5	420083



EG
Two-component PUR cast resin
universal

Cast resin EG is suitable for the following types of cables: Low voltage polymeric-insulated and mass-impregnated paper cables up to 1 kV, polymeric-insulated and mass-impregnated paper telecommunication and signal cables and medium voltage cables (as mechanical protection and protection against moisture).

Characteristics

- Two-component PUR cast resin
- In practical and easy-to-use two-chamber bags
- Favourable flow properties
- High hydrolysis resistance
- Resistant to alkaline earth elements
- Halogen-free
- Not harmful to the environment
- Flexibility ensures mechanical stress absorption
- No fracturing under electrical stress
- No fracturing under mechanical tension
- Excellent adhesion to all cable materials
- Low hardening temperature

Storage conditions/Shelf life

- In aluminium bag 40 months at ambient temperatures between 15 °C and 35 °C

Test standards

- DIN VDE 0278-631-1

Scope of delivery
1 PU

Note: Other sizes available on request.

Type		Content ml	Art.-No.
EG	80	80	134999
	143	143	124909
	286	286	124986
	370	370	124962
	464	464	124989
	730	730	124990
	1000	1000	124992
	1150	1150	124901
	1500	1500	124991
	2000	2000	132206

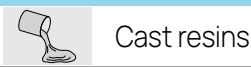
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→ Continuation

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

CAST RESIN TECHNOLOGY



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

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

- Test standards**
- DIN VDE 0278-631-1

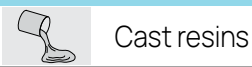


Scope of delivery
1 PU
Note: Other sizes available on request.

Type		Content ml	Art.-No.
GG	80	80	353869
	143	143	353890
	286	286	353891
	370	370	353892
	464	464	353893
	730	730	353894
	1000	1000	353818
	1700	1700	335750

Technical data	Value
Flash point of cast resin component (open cup)	> 200 °C
Flash point of reactant (open cup)	> 200 °C
Processing time (pot life) 300 ml mixture at 5 °C	68 minutes
23 °C	24 minutes
35 °C	15 minutes
max. Reaction temperature	60 °C
Total volume shrinkage during curing	< 6.0 %
Density	1.32 g/cm³
Impact strength	> 10 kJ/m²
Hardness	30 Shore D
Operating temperature range	-40 °C up to +90 °C

CAST RESIN TECHNOLOGY



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

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

- Note**
- Due to its soft elastic mechanical properties, which are favourable for removal, it is advised to implement a cable relief, if stresses on the cable are likely to occur.

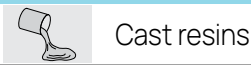
- Test standards**
- DIN EN 60455-3-8
 - DIN EN 50655-1

Scope of delivery
1 PU
Note: Other sizes available on request.

Type		Content ml	Art.-No.
CG	143	143	362398
	250	250	362399
	275	275	434565
	420	420	434566
	730	730	362410
	1000	1000	363564
	2000	2000	362411

Technical data*	Value	Test standard
Processing time (pot life) 300 ml mixture at 5 °C	24 minutes	DIN EN 60455-2
23 °C	21 minutes	
40 °C	16 minutes	
Hardness (PEN/Hardness)	57 1/10 mm	DIN ISO 2137
Resin - Viscosity at 23°C	2010 mPa x s	EN ISO 2555
Hardener - Viscosity at 23°C	7500 mPa x s	EN ISO 2555
Mix viscosity 5 minutes after mixing at 23°C	4200 mPa x s	EN ISO 2555
Density cured casting compound	0,92 g/cm³	EN ISO 1183-1
Resistance to electrical breakdown	> 25 kV/mm	DIN EN 60243-1
Volume resistance at 23°C	> 10 ¹⁴ Ωcm	DIN IEC 60093
Storage temperature	0 - 40 °C	DIN EN 60455-2
Operating temperature range	< 80 °C	DIN EN 60455-2

*The given values are typical values and not a specification



FG
Two-component PUR cast resin
flexible

Cast resin FG is suitable for repairing damaged cable-sheaths and for connecting flexible cables. It provides an excellent resistance to abrasion.

- Characteristics**
- Two-component PUR cast resin
 - In practical and easy-to-use two-chamber bags
 - Favourable flow properties
 - High hydrolysis resistance
 - Halogen-free
 - Not harmful to the environment
 - Resin remains highly flexible after hardening
 - Flexibility ensures mechanical stress absorption
 - No fracturing under electrical stress
 - No fracturing under mechanical tension
 - Excellent adhesion to all cable materials
 - Low hardening temperature

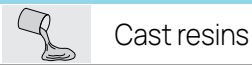
- Storage conditions/Shelf life**
- In aluminium bag 24 months at ambient temperatures between 15 °C and 35 °C

- Test standards**
- DIN VDE 0278-631-1

Scope of delivery
1 PU
Note: Other sizes available on request.

Type		Content ml	Art.-No.
FG	464	464	125154

Technische Daten	Wert
Gießharzkomponenten: Flammpunkt im offenen Tiegel	> 200 °C
Reaktionsmittel: Flammpunkt im offenen Tiegel	> 200 °C
Verarbeitungszeit (Topfzeit) 300 ml Ansatz	
5 °C	21 Minuten
23 °C	17 Minuten
35 °C	12 Minuten
Max. Reaktionstemperatur	60 °C
Gesamtvolumenschwund bei der Härtung	6,0 %
Dichte	1,10 g/cm³
Härte	50 Shore A
Reißdehnung	250 %
Wasseraufnahme in warmen Wasser (42 d bei 50 °C)	600 mg
1 Minute Prüfspannung bei	
23 °C	> 20 kV
80 °C	> 10 kV
Dielektrischer Verlustfaktor bei	
23 °C und 50 Hz	0,20
50 °C und 50 Hz	1,40
Dielektrizitätskonstante bei	
23 °C und 50 Hz	7,4
50 °C und 50 Hz	8,9
Kriechstromfestigkeit	KA 3c



UG
Two-component PUR cast resin
flame retardant

Cast resin UG meets the higher fire protection requirements and was specially developed for use in mining. It meets the requirements for cast resin moulding according to DIN VDE 0291 Section 2 on filling the cable sets or parts thereof for the following types of cables: Power cables with a nominal voltage up to 1 kV - GNH, power cables with a nominal voltage up to 10 kV - GMH and telecommunication and signal cables - GFH.

- Characteristics**
- Two-component PUR cast resin
 - In practical and easy-to-use two-chamber bags
 - Favourable flow properties
 - Fast-hardening
 - High hydrolysis resistance
 - Resistant to chemical agents
 - Resistant to alkaline earth elements
 - Halogen-free
 - Flame retardant
 - Not harmful to the environment
 - Low smoke emission in case of fire
 - No fracturing under electrical stress
 - No fracturing under mechanical tension
 - Excellent adhesion to all cable materials

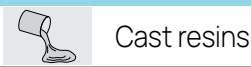
- Storage conditions/Shelf life**
- In aluminium bag 24 months at ambient temperatures between 15 °C and 35 °C

- Test standards**
- Flame retardation in accordance with DIN VDE 0472 Section 804, test typ C
 - Properties of insulation against flames in accordance with DIN VDE 0472 Section 814
 - Corrosiveness of combustion gases in accordance with DIN VDE 0472 Section 813
 - DIN VDE 0278-631-1

Scope of delivery
1 PU
Note: Other sizes available on request.

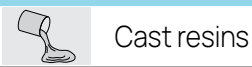
Type		Content ml	Art.-No.
UG	80	80	125286
	143	143	125287
	286	286	125288
	464	464	125289
	730	730	125290
	1000	1000	125291
	2000	2000	135533

→ Continued on the next page



→ Continuation
UG
Two-component PUR cast resin

Technical data	Value
Flash point of cast resin component (open cup) Flash point of reactant (open cup)	> 200 °C > 200 °C
Processing time (pot life) 300 ml mixture at 5 °C 23 °C 35 °C	23 minutes 16 minutes 12 minutes
max. Reaction temperature	78 °C
Total volume shrinkage during curing	2.5 %
Density	1.40 g/cm³
Impact strength	> 20 kJ/m²
Hardness	80 Shore D
Water absorption in warm water (42 d at 50 °C)	250 mg
Water absorption in cold water (24 h at 23 °C)	18 mg
Electrolytic corrosion	A 1.2
1 minute test voltage at 23 °C 80 °C	38 kV 35 kV
Dielectric dissipation factor at 23 °C and 1kHz 23 °C and 50 Hz 50 °C and 50 Hz 80 °C and 50 Hz	0.02 0.03 0.06 0.15
Dielectric constant at 23 °C and 1 kHz 23 °C and 50 Hz 50 °C and 50 Hz 80 °C and 50 Hz	4.1 4.3 5.5 7.2
Tracking resistance	KA 3c



UWR
Two-component PUR cast resin
low reactivity to water

Cast resin UWR has been specially developed for filling the cable joints exposed to high levels of humidity. It is characterised by its resistance to water in the liquid and in the solid state and is suitable for the encapsulation which are exposed to high levels of humidity for the following cable types: low voltage polymeric-insulated and mass-impregnated paper cables up to 1 kV

- Characteristics**
- Two-component PUR cast resin
 - In practical and easy-to-use two-chamber bags
 - Favourable flow properties
 - High hydrolysis resistance
 - Halogen-free
 - Not harmful to the environment
 - No fracturing under electrical stress
 - No fracturing under mechanical tension
 - Excellent adhesion to all cable materials

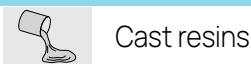
- Storage conditions/Shelf life**
- In aluminium bag 24 months at ambient temperatures between 15 °C and 35 °C
- Test standards**
- DIN VDE 0278-631-1

Scope of delivery
1 PU
Note: Other sizes available on request.

Type		Content ml	Art.-No.
UWR	143	143	139163
	464	464	148876
	1175	1175	137406
	1350	1350	137358
	2000	2000	137877

Technical data	Value
Flash point of cast resin component (open cup)	140 °C
Processing time (pot life) 300 ml mixture at 5 °C 23 °C 35 °C	30 minutes 15 minutes 8 minutes
max. Reaction temperature	88 °C
Total volume shrinkage during curing	4.2 %
Density	1,20 g/cm³
Impact strength	> 28 kJ/m²
Hardness	60 Shore D
Elongation at break	40 %
Effect of long-term warm storage on impact strength (38 d)	15 kJ/m²
Tear resistance	16 N/mm²
Tensile strength	15 N/mm²
Residual deformation (after 24 h)	0,4 %
Pressure required for 30 % deformation	27 N/mm²
Curing under water	< 10 ml glass
Hydrolysis resistance after water immersion (28 d at 70 °C)	passed
Physical structure	passed (homogeneous and bubble-free)

CAST RESIN TECHNOLOGY



Cast resins



WG
Two-component PUR cast resin
removable

The unfilled thin two-component polyurethane cast resin (PUR) WG was particularly developed for cable joints. The hardened moulding material is permanently elastic and can be removed at any time with simple tools.

- Characteristics**
- Two-component PUR cast resin
 - In practical and easy-to-use two-chamber bags
 - Favourable flow properties
 - High hydrolysis resistance
 - Halogen-free
 - Not harmful to the environment
 - No fracturing under electrical stress
 - Excellent adhesion to all cable materials
 - Low hardening temperatur
 - Permanently flexible after hardening

- Storage conditions/Shelf life**
- In aluminium bag 18 months at ambient temperatures between 15 °C and 35 °C
- Note**
- Connection requires mechanical tension relief due to the flexibility of the resin e.g. by means of a mechanically stable joint housing.

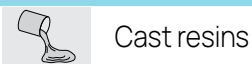
- Test standards**
- DIN VDE 0278-631-1

Scope of delivery
1 PU

Note: Other sizes available on request.

Type		Content ml	Art.-No.
WG	286	286	125202
	464	464	125203
	730	730	125204
	1000	1000	125205
	1150	1150	125206
	1500	1500	125207
	2000	2000	125208
	2200	2200	125209

Technical data	Value
Flash point of cast resin component (open cup)	200 °C
Flash point of reactant (open cup)	
Processing time (pot life) 300 ml mixture at	
5 °C	33 minutes
23 °C	24 minutes
35 °C	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	> 20 kV
80 °C	> 10 kV
Dielectric dissipation factor at 23 °C and 50 Hz	0,04
Dielectric constant at 23 °C and 50 Hz	5,7



Cast resins



AMX-C
Automatic cast resin mixing system
with static mixer

Cartridge filled with two-component PUR cast resin for easy casting of connection and branch boxes and cast resin joints in a single operation without time-consuming preparation of cast resin components. Suitable for low voltage polymeric-insulated cables up to 1 kV; ideal for boxes with smaller volume.

- Characteristics**
- Mixing and casting in one step
 - Less workload as no preparatory work such as kneading is necessary
 - Safe and automatic mixing of cast resin components during application
 - Favourable flow properties for clean application and precise dosing
 - Individually dosable
 - Reclosable cartridge for multiple use
 - Resistant to alkaline earth elements
 - Stabilized against UV rays
 - Halogen-free
 - Not harmful to the environment
 - No fracturing under electrical stress
 - Excellent adhesion to all cable materials
 - No fracturing under mechanical tension
 - Low hardening temperature

- Storage conditions/Shelf life**
- 24 months at ambient temperatures between 15 °C and 35 °C
- Note on multiple use:
- Clean cartridge opening and (cartridge) cap after use. Replace static mixer.

- Application/Suitability**
- Indoor
 - Outdoor
 - Underground
 - Connection and branch boxes
 - Cast resin joints

- Voltage level**
- U₀/U (U_m) 0.6/1 (1.2) kV
- Test standard**
- DIN VDE 0278-631-1

Scope of delivery
Cast resin cartridge, static mixer

Note: Static mixer can be ordered separately or as part of the AMX cleaning accessory kit (static mixer, cleaning tissue and gloves).

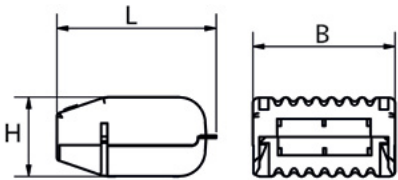
Optional accessory: Caulking gun AMX-HPT 310 (see Accessories)
Caulking gun AMX-HPT 1200 (see Accessories)
Accu caulking gun AMX-APT 310 (see Accessories)

Type	Content ml	Art.-No.
AMX-C265-EGK	265	292688
AMX-1200-EGK	1200	249007

Technical data	Value
Density	1.11 g/cm³
Hardness	50 Shore D
Tensile strength	13 N/mm²
Elongation at break	60 %
Viscosity (20 °C)	1700 mPa x s
Operating temperature range	-40 °C up to +105 °C



Dimensions



EASY-PROTECT

Gel box
with WAGO COMPACT Splicing Connectors

Gel filled housings for easy, fast and safe moisture protection of WAGO COMPACT Splicing Connectors

Characteristics

- Protects the splicing connector against moisture and water ingress according to IPX8
- VDE type-tested system according to EN 60998-2 for approval in conjunction with WAGO COMPACT Splicing Connectors 221
- Rigid, label-free and silicone-free gel
- UV-resistant housing, robust and re-accessible housing
- Fast application, easy mounting and direct commissioning
- Ready to use and immediately operational

Storage conditions/Shelf life

- Unlimited shelf life at ambient temperature between 0 °C und 40 °C

Application/Suitability

- Indoor and Outdoor
- Can be used in the low-voltage range without an additional housing
- Can be used in the low-voltage range with additional housing (double insulation / observe protection class II)

Note

- Not reusable

Voltage level

- U₀/U (U_m) 0,6/1 (1,2) kV

Test standards

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



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

Assignment with WAGO COMPACT Splicing Connectors, type 221

Designation	L mm	B mm	H mm	221-412	221-413	221-415	221-612	221-613	221-615
Size 1	33,6	32,0	17,8	1	1	-	-	-	-
Size 2	33,6	45,9	17,8	2	-	1	-	-	-
Size 3	33,6	52,7	17,8	3	2	-	-	-	-
Size 4	40,1	38,0	21,3	-	-	-	1	1	-
Size 5	40,1	49,4	21,3	-	-	-	2	-	1
Size 6	40,1	66,4	21,3	-	-	-	3	2	-

Typ	Housing size	Type WAGO COMPACT Splicing Connector	Nominal cross section mm²	Number of Gel boxes	Art.-No.
EASY-PROTECT	112	1 x 221-412	0,14 f / 0,2 - 4 mm²	1	407858
	113	1 x 221-413		1	407859
	222	2 x 221-412		1	407860
	215	1 x 221-415		1	407861
	332	3 x 221-412		1	407862
	323	2 x 221-413	0,5 - 6 mm²	1	407863
	412	1 x 221-612		1	410356
	413	1 x 221-613		1	410357
	522	2 x 221-612		1	410358
	515	1 x 221-615		1	410359
EASY-PROTECT Bulk	632	3 x 221-612	0,14 f / 0,2 - 4 mm²	1	410360
	623	2 x 221-613		1	410361
	113	12 x 221-413		12	451511
	332	48 x 221-412		16	451512
	323	24 x 221-413		12	451513

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→ Continuation

EASY-PROTECT

Gel box

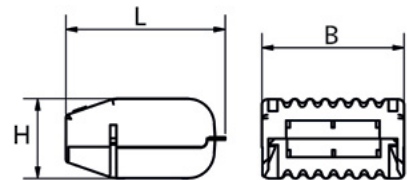
Technical data	Value	Test standard
Physical properties		
IP protection class	IPX8	EN 60529
Storage period	Indefinite storage capacity	-
Housing colour	Black	-
Housing material	Polypropylene	-
Closure type	Latching	-
Wiring direction	One-sided	-
Gel colour	Translucent amber	-
Gel material	Polyurethan	-
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



Dimensions



EASY-PROTECT INLINE

Gel box
with WAGO COMPACT-Inline Splicing connectors with lever
Gel filled housings for easy, fast and safe moisture protection of
WAGO COMPACT-Inline Splicing Connectors with lever

Characteristics

- Protects the splicing connector against moisture and water ingress according to IPX8
- VDE type-tested system according to EN 60998-2 for approval in conjunction with WAGO COMPACT-Inline Splicing Connectors with lever type 221
- Rigid, label-free and silicone-free gel
- UV-resistant housing, robust and re-accessible housing
- Fast application, easy mounting and direct commissioning
- Ready to use and immediately operational

Storage conditions/Shelf life

- Unlimited shelf life at ambient temperature between 0 °C und 40 °C

Application/Suitability

- Indoor and Outdoor
- Can be used in the low-voltage range without an additional housing
- Can be used in the low-voltage range with additional housing (double insulation / observe protection class II)

Note

- Not reusable

Voltage level

- U0/U (Um) 0,6/1 (1,2) kV

Test standards

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



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

Assignment with WAGO COMPACT-Inline Splicing Connectors with lever, type 221				
Designation	L mm	B mm	H mm	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



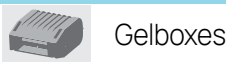
Type		L mm	B mm	H mm	Housing size	Type WAGO COM-PACT-Inline Splicing Connector with lever	Nominal cross section mm²	Number of gelboxes	Art.-No.
EASY-PROTECT Inline	2/4	32,7	56,9	17,8	2	2 x 221 - 2411	0,2 - 4 0,2 - 2,5*	1	449749
	3/4	41,7	56,9	17,8	3	3 x 221 - 2411		1	449750
	5/4**	60,7	56,9	17,8	5	5 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

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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

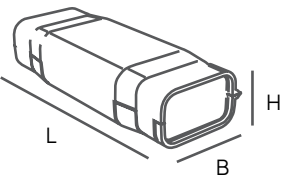
** Double insulation / observe protection class II for low voltage



Straight-through joints



Dimensions



EASYCELL® COMPACT
Gel straight-through joint
with connection block

Universally suitable for connecting 2-core polymeric cables (e.g. NYM-J, H03VVF, H05RR-F, HO7RN-F), cross section range from 0.5 mm² to 1.5 mm². Suitable for aluminium and copper conductors.

Characteristics

- Connection block completely sealed by gel - IP 68
- Re-accessible and ready for immediate operation
- New snap closing system, no cable ties required
- Connection block does not require any tool
- High-quality shockproof plastic shells, flame retardant and UV-resistant
- Quick, safe and easy assembly

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor
 - Outdoor
 - Underground without loads
 - Cable ducts
- Voltage level
- 450 V, 24 A

Test standards

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

Scope of delivery

Gel straight-through joint, connection block, assembly instruction

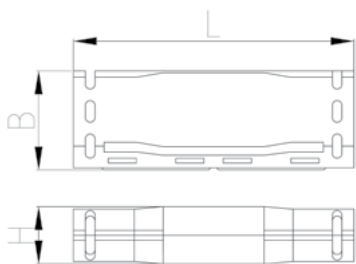
							Polymeric cable unarmoured		
									
							2x		
Type		L mm	B mm	H mm	Cable-Ø mm	PU	Nominal cross section per conductor mm²	Art.-No.	
EASYCELL® COMPACT	1C-V	68	24	22	4,5 - 6,5	24	0,5 - 1,5	472575	



Straight-through joints



Dimensions



EASYCELL® EASY...V
Gel straight-through joint
with connection block

Universally suitable for connecting all polymeric cables and conductors (e.g. N(A) YY, NYM, H05), cross section range from 1.5 mm² to 25 mm². Suitable for aluminium and copper conductors.

Characteristics

- Connector area completely sealed by gel
- Re-accessible and ready for immediate operation
- Multi range one-piece connection block
- High-quality shockproof plastic shells, flame retardant and UV-resistant
- Quick and easy assembly

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor
- Outdoor
- Underground
- Water (according to test standard)

Voltage level

- U0/U (Um) 0.6/1 (1.2) kV

Test standards

- DIN EN 50393
- DIN EN 60695-2-11

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			389677
	4 V	180	69	40	6 - 16			6 - 16			389678
	5 V	240	75	44	16 - 25			16 - 25			389679



Straight-through joints



EASYCELL® EASY...
Gel straight-through joint
without connection block

Universally suitable for connecting all polymeric cables and conductors (e.g. N(A)YY, NYM, H05), cross section range from 1.5 mm² to 25 mm². Suitable for aluminium and copper conductors.

Characteristics

- Connector area completely sealed by gel
- Re-accessible and ready for immediate operation
- Multiple type of connectors can be used, e. g. terminal strips, push wire connectors, mechanical blocks and c-crimp connectors
- High-quality shockproof plastic shells, flame retardant and UV-resistant
- Quick and easy assembly

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor
- Outdoor
- Underground

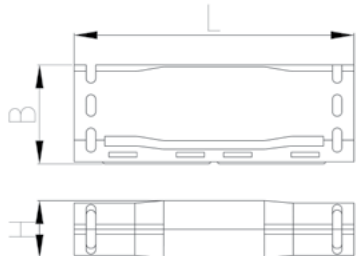
Voltage level

- U0/U (Um) 0.6/1 (1.2) kV

Test standards

- DIN EN 50393
- DIN EN 60695-2-11

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		Art.-No.
						unarmoured		
								
						3x	4x	
Type		L mm	B mm	H mm	Cable-Ø mm	Nominal cross section per conductor mm²		
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



Straight-through joints



EASYCELL®
Strain relief

for gel straight-through joints EASY 4 V and EASY 5 V

For the application with high mechanical loads and forces.

Characteristics

- Quick and easy assembly

Application/Suitability

- Mechanical protection

Dimensions

Scope of delivery
Strain relief

Type	Art.-No.
Strain relief	310553

GEL TECHNOLOGY



Branch joints



EASYCELL® EASY...V

Gel branch joint
with branch-off block

Universally applicable for branching all polymeric cables and conductors (e.g. N(A) YY, NYM, H05) cross section range from 6 mm² to 25 mm². Suitable for aluminium and copper conductors.

Characteristics

- Connector area completely sealed by gel
- Re-accessible and ready for immediate operation
- Multi range one-piece branch-off block
- High-quality shockproof plastic shells, flame retardant and UV-resistant
- Quick and easy assembly

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor
- Outdoor
- Underground
- Water (according to test standard)

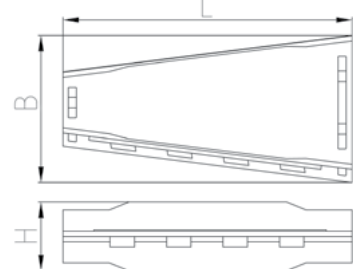
Voltage level

- $U_0/U (U_m)$ 0.6/1 (1.2) kV

Test standards

- DIN EN 50393
- DIN EN 60695-2-11

Dimensions



Scope of delivery

Gel branch joint, branch-off block, allen key, cable ties, assembly instruction

Note: Separable, main cable must not be cut.

					Polymeric cable						Art.-No.
					unarmoured						
											
					3x	4x		5x			
Type		L mm	B mm	H mm	Nominal cross section per conductor mm²						Art.-No.
					Main cable	Branch cable	Main cable	Branch cable	Main cable	Branch cable	
EASY	6 V	220	110	53	6	2,5 - 6	6	2,5 - 6	6	2,5 - 6	371166
	7 V	260	130	65	16 - 25	2,5 - 25	16 - 25	2,5 - 25	16 - 25	2,5 - 25	371167

GEL TECHNOLOGY



Casting compounds



EXPRESS+ GEL

Two-component gel based on silicon

Only 15 seconds of mixing time for extremely fast casting

Innovative bottle with 2-component mixing compound for quick and permanent protection of electrical products. Very fast curing time with colour changing indication.

Characteristics

- Innovative mixing process
- The fastest mixing compound available on the market
- Colour change from white to light blue
- High electrical insulation value
- Non-toxic
- Easy removable
- Halogen free
- Seals and protects all electrical installations

Storage conditions/Shelf life

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

Application/Suitability

- Indoor
- Outdoor
- Protection against moisture (IP 68 protection class in suitable housing, according to EN 60529)
- For electrical systems up to 1 kV



Scope of delivery

EXPRESS+ GEL patented mixing bottle

Type		Content ml	Art.-No.
EXPRESS+ GEL	300	300	461305
	600	600	461306
	900	900	461307

Technical data	Value	Test standard
Viscosity (23 °C)	288 mPa x s	ISO 2555
Pot life (23 °C)	8 min	EN 60684-2
Dielectric strength	≥ 18 kV/mm	EN 60243-1
Specific volume resistivity	1.51 x 10 ¹⁴ Ω x cm	HD 429
Mixing ratio	1 : 1	
Working temperature	5 °C up to 30 °C	
Temperature resistance	-40 °C up to 150 °C	

GEL TECHNOLOGY



Casting compounds



POWER GEL
Two-component gel based on silicon
to cast branch and connection boxes

Individual portioned two-component sealing compound in bottles, measuring cup and spatula, all-in-one solution for a reliable protection of electrical and electronic components.

Characteristics

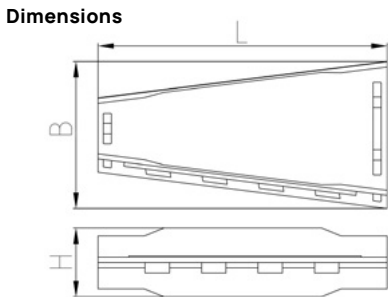
- Individual portioned
- Reclosable bottles for multiple use
- Easy casting thanks to measuring cup
- Complete system
- Non-labelled and non-toxic
- Vibration damping
- Removable
- Flexible
- Halogen free
- UV rays stable
- Seals and protects all electrical installations

Storage conditions/Shelf life

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

Application/Suitability

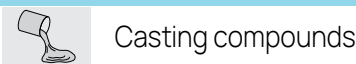
- Indoor (also with high humidity levels)
- Outdoor
- Branch and connection boxes
- Protection against moisture (IP 68 protection class in a suitable box)
- For electrical systems up to 1 kV



Scope of delivery
POWER GEL component A and component B in bottles, measuring cup and spatula

Type		Content ml	Art.-No.
POWER GEL	400	400	335120
	1000	1000	335121

Technical data	Value	Test standard
Viscosity (23 °C)	1000 mPa x s	ISO 2555
Pot life (23 °C)	15 min	EN 60684-2
Dielectric strength	≥ 15 kV/mm	EN 60243-1
Specific volume resistivity	≥ 2 x 10 ¹⁴ Ω x cm	HD 429
Mixing ratio	1 : 1	
Working temperature	15 °C up to 30 °C	
Temperature resistance	-40 °C up to 150 °C	



Casting compounds



JUMBO GEL
Two-component gel based on silicon
cost-effective casting for big quantities

Transparent and economic two-component sealing compound in re-closable cans for serial casting and big branch and connection boxes.

Characteristics

- Special cost-effective and efficient
- Reclosable cans for multiple use
- Transparent
- Mix in standard bucket
- Non-labelled and non-toxic
- Vibration damping
- Removable
- Flexible
- Halogen free
- UV rays stable
- Seals and protects all electrical installations

Storage conditions/Shelf life

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

Application/Suitability

- Indoor (also with high humidity level)
- Outdoor
- Serial casting and big boxes
- Protection against moisture (IP 68 protection class in a suitable box)
- For electrical systems up to 1 kV

Scope of delivery
JUMBO GEL component A and component B in cans

Type		Content ml	Art.-No.
JUMBO GEL	2000	2000	364306
	5000	5000	364307
	10000	10000	364308
ZS-JUMBO GEL	12000	Accessory kit (12000 ml bucket and spatula)	366513

Technical data	Value	Test standard
Viscosity (23 °C)	1000 mPa x s	ISO 2555
Pot life (23 °C)	17 min	EN 60684-2
Dielectric strength	≥ 12 kV/mm	EN 60243-1
Specific volume resistivity	≥ 2 x 10 ¹⁴ Ω x cm	HD 429
Mixing ratio	1 : 1	
Working temperature	15 °C up to 30 °C	
Temperature resistance	-25 °C up to 125 °C	



CLEAR GEL

Two-component gel based on silicon
to protect electrical components and LEDs

Sealing, high-transparent two-component sealing compound for a reliable protection to electrical components. Suitable for opto-electronic applications like e.g. sealing of LEDs and lighting installations

Characteristics

- Permanently high transparent
- In practical and easy-to-use two-chamber bags
- Favourable flow properties
- Application-oriented variants
- Non-labelled and non-toxic
- Vibration damping
- Removable
- Flexible
- Halogen free
- UV rays stable
- Seals and protects all electrical installations

Storage conditions/Shelf life

- 24 months at ambient temperatures between 0 °C and 40 °C

Application/Suitability

- Indoor (also with high humidity level)
- Outdoor
- Branch and connection boxes
- Protection against moisture (IP 68 protection class in a suitable box)
- For electrical systems up to 1 kV

Scope of delivery
CLEAR GEL component A and component B in two-chamber bags

Type		Content ml	Art.-No.
CLEAR GEL	150	150	364032
	250	250	364033
	350	350	364034
	500	500	364035

Technical data	Value	Test standard
Viscosity (23 °C)	1000 mPa x s	ISO 2555
Pot life (23 °C)	15 min	EN 60684-2
Dielectric strength	≥ 15 kV/mm	EN 60243-1
Specific volume resistivity	≥ 2 x 10 ¹⁴ Ω x cm	HD 429
Mixing ratio	1 : 1	
Working temperature	15 °C up to 30 °C	
Temperature resistance	-40 °C up to 150 °C	



SUPRA GEL

Two-component gel based on silicon

ready-to-use, delivered with static mixer for small volume boxes
Standard cartridge, filled with two-component sealing compound. User friendly casting for branch and connection boxes in one-operation without time consuming.

Characteristics

- Ready-to-use
- Mixing and casting in one step
- Clean application and precise dosing
- Reclosable cartridge for multiple use
- Favourable flow properties
- Non-labelled and non-toxic
- Removable
- Flexible
- Halogen free
- UV rays stable
- Seals and protects all electrical installations

Storage conditions/Shelf life

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

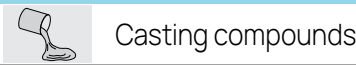
Application/Suitability

- Indoor (also with high humidity level)
- Outdoor
- Branch and connection boxes
- Protection against moisture (IP 68 protection class in a suitable box)
- For electrical systems up to 1 kV

Scope of delivery
SUPRA GEL component A and component B in a cartridge with static mixer

Type		Content ml	Art.-No.
SUPRA GEL		250	364036
Static mixer	SUPRA GEL		366780

Technical data	Value	Test standard
Viscosity (23 °C)	1000 mPa x s	ISO 2555
Pot life (23 °C)	15 min	EN 60684-2
Dielectric strength	≥ 15 kV/mm	EN 60243-1
Specific volume resistivity	≥ 2 x 10 ¹⁴ Ω x cm	HD 429
Mixing ratio	1 : 1	
Working temperature	15 °C up to 30 °C	
Temperature resistance	-40 °C up to 150 °C	



Casting compounds



SOFT GEL
One-component gel based on silicon

ready-to-use, suitable for a wide range of applications

Standard cartridge, filled with extremely sticky one-component sealing compound suitable for electrical insulation and protection against corrosion, also recommended for temporal solutions.

Characteristics

- Ready-to-use
- Very sticky, does not drip
- Re-accessible
- Non-labelled and non-toxic
- Reusable
- Halogen free
- UV rays stable

Application/Suitability

- Indoor
- Outdoor
- Plug-in protection
- Protection against corrosion and insects
- For electrical systems up to 1 kV

Storage conditions/Shelf life

- Unlimited shelf life at ambient temperatures between 0 °C and 40 °C
- The cartridge can be stored open

Scope of delivery
SOFT GEL in a cartridge with nozzle

Type		Content ml	Art.-No.
SOFT GEL		310	364723

Technical data	Value	Test standard
Viscosity (23 °C)	40000 mPa x s	
Pot life (23 °C)	-	EN 60684-2
Dielectric strength	≥ 10 kV/mm	EN 60243-1
Specific volume resistivity	≥ 2 x 10 ¹⁴ Ω x cm	HD 429
Mixing ratio	-	
Working temperature	0 °C up to 40 °C	
Temperature resistance	-40 °C up to 150 °C	



Straight-through joints



Dimensions



SMH3...MS6
3-core straight-through joint

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

Straight-through joints SMH3...MS6 are suitable for armoured 3-core polymeric-insulated cables (PVC, PE, XLPE, EPR) without an outer semi-conductive layer. They allow the connection of cables with different cross sections and conductor materials even with different cable design. Suitable for compression connectors.

Characteristics

- Compact dimensions
- Wide cross-section range
- Ready for immediate operation
- High mechanical strength
- Quick, safe and easy assembly

Application/Suitability

- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Storage conditions/Shelf life

- Unlimited shelf life

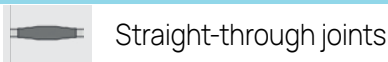
Voltage level

- U0/U (Um) 3.6/6 (7.2) kV - 3.8/6.6 (7.2) kV

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 mm²	Art.-No.
U ₀ /U (U _m) 3.6/6 (7.2) kV - 3.8/6.6 (7.2) kV						
SMH3	25-70 MS6	850	20	110	25 - 70	145630
	50-150 MS6	1000	25	135	50 - 150	145633
	120-300 MS6	1200	40	150	120 - 300	145635

CABLE SETS FOR UNSCREENED POLYMERIC CABLES



Straight-through joints



SMHSV3-1...MS6

Straight-through joint

with screw connectors, for connecting from 3-core with three 1-core polymeric cables up to 7.2 kV

Straight-through joints SMHSV3-1...MS6 are suitable for connecting 3-core polymeric cables (PVC, PE, XLPE, EPR) without outer semi-conductive layer with three 1-core polymeric cables (PVC, PE, XLPE, EPR). They allow the connection of cables with different cross sections, conductive materials and structure. With screw connectors.

Characteristics

- Compact dimensions
- Wide cross-section range
- Ready for immediate operation
- High mechanical strength
- Quick, safe and easy assembly
- Suitable for a wide range of applications due to integrated screw connector

Application/Suitability

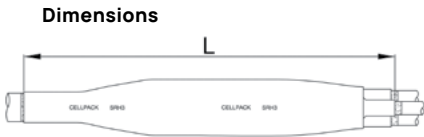
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level

- U0/U (Um) 3.6/6 (7.2) kV - 3.8/6.6 (7.2) kV

Storage conditions/Shelf life

- Unlimited shelf life

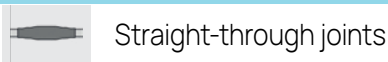


Scope of delivery

Thick wall heat shrinkable outer tube with hot melt adhesive, inner sheath sleeve, copper braid tape, screw connectors, assembly material, assembly instructions

			Polymeric cable		
			unarmoured / 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					
SMHSV3-1	50-150 MS6	750	50 - 150		311594
	120-240 MS6	800	120 - 240		369133

CABLE SETS FOR UNSCREENED POLYMERIC CABLES



Straight-through joints



M...MS6 EG

3-core straight-through joint

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

Straight-through joints M...MS6 are suitable for armoured 3-core polymeric-insulated cables (PVC, PE, XLPE, EPR) without an outer semi-conductive layer. EG cast resin ensure good mechanical and moisture protection (also for automotive industry).

Characteristics

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

Application/Suitability

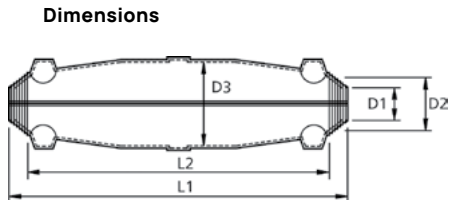
- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Storage conditions/Shelf life

- EG Cast resin up to 40 months

Voltage level

- U0/U (Um) 3.6/6 (7.2) kV - 3.8/6.6 (7.2) kV



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

								Polymeric insulated cable		Art.-No.
								armoured	armoured with concentric conductor	
Type		L1 mm	L2 mm	D1 mm	D2 mm	D3 mm	Cable-Ø mm	Nominal cross section mm²		
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

CABLE SETS FOR UNSCREENED POLYMERIC CABLES



Straight-through joints



SEEV
3-core indoor cable termination
for armoured 3-core polymeric cables without semi-conductive layer up to 7.2 kV

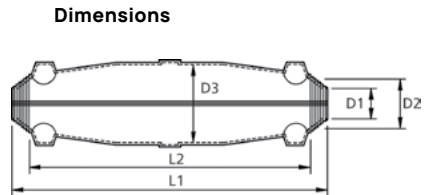
Cable terminations SEEV for indoor applications are suitable to cover armoured 3-core polymeric cables (PVC, PE, XLPE, EPR) without semi-conductive layer. Suitable for compression cable lugs.

- Characteristics**

 - Resistant to chemical agents
 - Longitudinally and transversely watertight
 - High mechanical strength
 - Quick, safe and easy assembly
- Application/Suitability**

 - Indoor
 - Outdoor
 - Underground
 - Water
 - Installation ducts
- Voltage level**

 - U0/U (Um) 3.6/6 (7.2) kV - 3.8/6.6 (7.2) kV

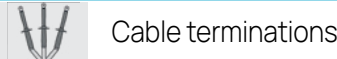


Scope of delivery
Transparent plastic shells, PUR type UG cast resin, spacer sleeve, copper braid tube, hose clamp, fill and air-release funnels, PVC insulation tape, protective gloves, assembly instructions

Note: Compression connectors should be ordered separately

								Polymeric insulated cable		Art.-No.	
								armoured	armoured with con- centric conductor		
Type		L1 mm	L2 mm	D1 mm	D2 mm	D3 mm	Cable-Ø mm	Nominal cross section mm²			
U ₀ /U (U _m) 3,6/6 (7,2) kV - 3,8/6,6 (7,2) kV											
M4	MS6 UG	432	384	29	52	90	29 - 55	25 - 70	25/25 - 50/50		124359
M5	MS6 UG	550	503	40	62	110	42 - 65	95 - 120	70/70 - 95/95		124360
M6	MS6 UG	660	600	50	78	145	50 - 78	150 - 240	120/120 - 185/185	124361	

CABLE SETS FOR UNSCREENED POLYMERIC CABLES



Cable terminations



M...MS6 EG
3-core straight-through joint
for armoured 3-core polymeric cables without semi-conductive layer up to 7.2 kV

Straight-through joints M...MS6 are suitable for armoured 3-core polymeric-insulated cables (PVC, PE, XLPE, EPR) without an outer semi-conductive layer. EG cast resin ensure good mechanical and moisture protection (also for automotive industry).

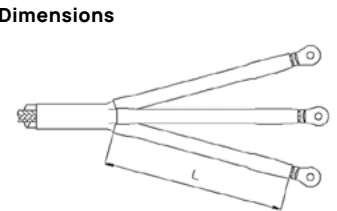
- Characteristics**

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

 - Indoor
- Voltage level**

 - U0/U (Um) 3.6/6 (7.2) kV - 3.8/6.6 (7.2) kV
- Storage conditions/Shelf life**

 - Unlimited shelf life



Scope of delivery
Core insulating tubes (tracking resistant), spreader cap, filling tape, earthing accessories, sealing tape, assembly instructions

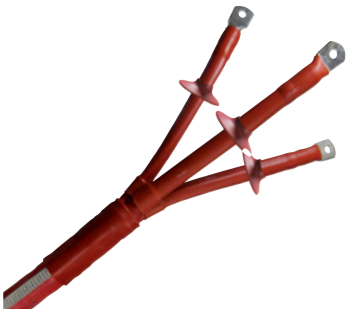
Optional accessory: Cable lugs (see Connecting technology)

			Polymeric cable		Art.-No.
			armoured		
Type		L mm	Nominal cross section mm²		
U ₀ /U (U _m) 3.6/6 (7.2) kV - 3.8/6.6 (7.2) kV					
SEEV	16-50	280	16 - 50		145458
	70-120	280	70 - 120		145461
	150-240	280	150 - 240		145464

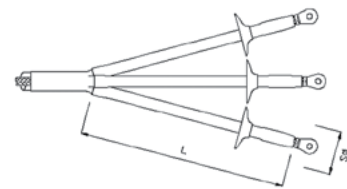
CABLE SETS FOR UNSCREENED POLYMERIC CABLES



Cable terminations



Dimensions



Ø S = Diameter of cable shed

SEEV-F
3-core outdoor cable termination

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

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

- Characteristics**
- Compact dimensions
 - Wide conductor and cross-section range
 - High mechanical strength
 - Quick, safe and easy assembly
- Storage conditions/Shelf life**
- Unlimited shelf life

- Application/Suitability**
- Outdoor
- Voltage level**
- U0/U (Um) 3.6/6 (7.2) kV - 3.8/6.6 (7.2) kV

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)

				Polymeric cable armoured		
Type		L mm	Ø S 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-F	16-50	400	80	16 - 50		148152
	70-120	400	85	70 - 120		182390
	150-240	400	85	150 - 240		148153

CABLE SETS FOR SCREENED POLYMERIC CABLES



Straight-through joints for 1-core cables



Dimensions



CHMSV
1-core straight-through joint

with screw connector, for all 1-core polymeric cables

Hybrid straight-through joints CHMSV are suitable for all 1-core polymeric-insulated cables (PVC, PE, XLPE, EPR). They allow the connection of cables with different cross sections and conductor materials even with different cable designs concerning the semi-conductive layer (graphite-coated, removable or strippable) and screen design (copper wire or tape screen). With screw connector.

- Characteristics**
- Reliable stress control due to flexible silicone stress control elements
 - For both copper and aluminium conductors
 - For all cables with copper wire or tape screen
 - Wide conductor and cross-section range
 - Quick, safe and easy assembly
 - Ready for immediate operation
 - Suitable for a wide range of applications due to integrated screw connector
- Storage conditions/Shelf life**
- Unlimited shelf life

- Application/Suitability**
- Indoor
 - Outdoor
 - Underground
 - Water
 - Installation ducts
 - Ductwork
- Voltage level**
- U0/U (Um) 6/10 (12) kV - 19/33 (36) kV
- Note**
- 12 kV joints must be used for 7.2 kV cables. (Check minimum diameter over conductor insulation.)
- Test standards**
- CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

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

CABLE SETS FOR SCREENED POLYMERIC CABLES



Straight-through joints for 1-core cables



CHRMSV
1-core repair straight-through joint
with screw connector, for polymeric cables

Hybrid-repair-straight-through joints CHRMSV are suitable for all 1-core polymer-ic-insulated cables (PVC, PE, XLPE, EPR). They enable the repair of damaged cables without the use of separate cable sections. With screw connector.

Characteristics

- Reliable stress control due to flexible silicone stress control elements
- For both copper and aluminium conductors
- For all cables with copper wire or tape screen
- Wide conductor and cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation
- Suitable for a wide range of applications due to integrated screw connector

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor
 - Outdoor
 - Underground
 - Water
 - Installation ducts
- Voltage level
- U0/U (Um)12/20 (24) kV - 12.7/22 (24) kV

Note

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

Test standards

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

Dimensions



Scope of delivery

Thick wall heat shrinkable insulation tubes, thick wall heat shrinkable outer tube with hot melt adhesive, silicone stress control elements, copper braid tube, pressure springs, innovative repair screw connector with conductive cover, field control filling tape (blue), assembly material, assembly instructions

					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

CABLE SETS FOR SCREENED POLYMERIC CABLES



Straight-through joints for 1-core cables



CHM...V
1-core straight-through joint
with screw connector, for all 1-core polymeric cables

Hybrid straight-through joints CHM...V are suitable for all 1-core polymeric-insulated cables (PVC, PE, XLPE, EPR). They allow the connection of cables with different cross sections and conductor materials even with different cable designs concerning the semi-conductive layer (graphite-coated, removable or strippable) and screen design (copper wire or tape screen). With screw connector.

Characteristics

- Reliable stress control due to flexible silicone stress control elements
- For both copper and aluminium conductors
- For all cables with copper wire or tape screen
- Wide conductor and cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation
- Suitable for a wide range of applications due to screw connector

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level

- U₀/U (U_m) 12/20 (24) kV - 19/33 (36) kV

Note

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

Test standards

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

Dimensions



Scope of delivery

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

				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

CABLE SETS FOR SCREENED POLYMERIC CABLES

 Straight-through joints for 1-core cables



CHM...V
1-core straight-through joint
with screw connector, for all 1-core polymeric cables

Hybrid straight-through joints CHM...V are suitable for all 1-core polymeric-insulated cables (PVC, PE, XLPE, EPR). They allow the connection of cables with different cross sections and conductor materials even with different cable designs concerning the semi-conductive layer (graphite-coated, removable or strippable) and screen design (copper wire or tape screen). With screw connector.

Characteristics

- Reliable stress control due to flexible silicone stress control elements
- For both copper and aluminium conductors
- For all cables with copper wire or tape screen
- Wide conductor and cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation
- Suitable for a wide range of applications due to screw connector

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

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

CABLE SETS FOR SCREENED POLYMERIC CABLES

 Straight-through joints for 1-core cables



CHM
1-core straight-through joint
for all 1-core polymeric cables

Hybrid straight-through joints CHM are suitable for all 1-core polymeric-insulated cables (PVC, PE, XLPE, EPR). They allow the connection of cables with different cross sections and conductor materials even with different cable designs concerning the semi-conductive layer (graphite-coated, removable or strippable) and screen design (copper wire or tape screen). Suitable for compression connectors.

Characteristics

- Reliable stress control due to flexible silicone stress control elements
- For both copper and aluminium conductors
- For all cables with copper wire or tape screen
- Wide conductor and cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation

Application/Suitability

- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level

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

Note

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

Test standards

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

Scope of delivery

Thick wall heat shrinkable insulation tubes, thick wall heat shrinkable outer tube with hot melt adhesive, silicone stress control 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

CABLE SETS FOR SCREENED
POLYMERIC CABLES



Straight-through joints for 1-core cables

→ Continuation
CHM...V
1-core straight-through joint

						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								
CHM 24kV	10-35	650	12.6	20	100	10 - 35		193339
	50-150	650	17.3	25	135	50 - 150		193370
	70-240	700	19.9	32	145	70 - 240		194086
	150-300	700	23.1	40	200	150 - 300		194087
	400-630	850	27.3	60	360	400 - 630		194088
	630-1000	850	36.8	60	360	630 - 1000		194089
U ₀ /U (U _m) 18/30 (36) kV - 19/33 (36) kV								
CHM 36kV	35-70	650	19.9	20	110		35 - 70	194090
	50-150	700	23.1	25	135		50 - 150	194091
	150-300	700	27.3	38	200		150 - 300	194092
	300-500	700	27.3	45	200		300 - 500	194093
	500-1000	850	36.8	60	360		500 - 1000	194094

CABLE SETS FOR SCREENED
POLYMERIC CABLES



Straight-through joints for 1-core cables



CAM-S
1-core straight-through joint
for all 1-core polymeric cables

Contrax straight-through joints CAM-S are suitable for all 1-core polymeric-insulated cables (PVC, PE, XLPE, EPR). They allow the connection of cables with different cross sections and conductor materials even with different cable designs concerning the semi-conductive layer (graphite-coated, removable or strippable) and screen design (wire or tape screen). Suitable for compression connectors.

Dimensions



Characteristics

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

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level

- U₀/U (U_m) 6/10 (24) kV - 12.7/22 (24) k

Note

- Check minimum diameter over conductor insulation

Test standards

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

Scope of delivery

Thick wall heat shrinkable outer tube with hot melt adhesive, silicone stress control elements, silicone joint body with integrated semi-conductive layer (individually tested), roll, pressure springs, semiconductor tape, assembly instructions

Optional accessory: Compression connectors (see Connecting technology)

						12 kV	24 kV	Art.-No.
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			
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

CABLE SETS FOR SCREENED
POLYMERIC CABLES



Straight-through joints for 1-core cables



CAMSV-S

1-core straight-through joint

with screw connector and heat shrinkable outer protection, for all 1-core polymeric cables

Contrax-Straight-through joints CAMSV-S are suitable for all 1-core polymeric-insulated cables (PVC, PE, XLPE, EPR). They allow the connection of cables with different cross sections and conductor materials even with different cable designs concerning the semi-conductive layer (removable or strippable) and screen design (wire or tape screen). With screw connector.

Characteristics

- Slip-on silicone joint unit with integrated stress control element
- Suitable for a wide range of applications due to included screw connector
- Wide conductor and cross-section range
- For both copper and aluminium conductors
- Few components, compact design and reduced working length
- With heat shrinkable outer protection
- Quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor
- Outdoor
- Underground
- Water
- Installation ducts

Voltage level

- $U_o/U (U_m)$ 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)

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

CABLE SETS FOR SCREENED
POLYMERIC CABLES



Straight-through joints for 1-core cables



CCMSV

1-core straight-through joint

All-in-one coldshrink joint with screw connector

BBC Cellpack cold shrink Straight-through joints CCMSV are suitable for all 1-core polymeric insulated cables (with XLPE or (H)EPR) insulation and with PVC, PE outer sheath). They allow the connection of cables with copper wire and tape screen with different cross sections and conductor materials even with different cable designs concerning the semi-conductive layer (removable, or strippable). With screw connector.

Characteristics

- Few components, compact design and reduced working length
- Silicon insulation body with integrated electric stress control
- Suitable for a wide range of applications due to included screw connector
- For both copper and aluminium conductors
- With cold shrinkable outer protection
- Quick, safe, and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life

- 24 Monate at +5°C to +40°C

Application/Suitability

- Indoor
- Outdoor
- Underground
- Installation ducts

Voltage Level

- $U_o/U (U_m)$ 6/10 (12) kV - 18/30 (36) kV

Test standards

- CENELEC HD 629.1 S3

Dimensions



Scope of delivery

All-in-one cold shrinkable joint body, screw connector, silicone grease, sealing mastics, sealing MAT, pressure springs, Cu-Tape, field control filling tape, assembly material, assembly instructions

				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								
CCMSV 24 kV	35-95	650	17 - 24	95	70-95	35 - 95		456087
	95-240	700	19 - 32	150 - 240	95-240	95 - 240		456088
	120-300	750	24 - 36	240 - 300	185-300	120 - 300		456089
	240 RM-400	800	30 - 38	400	300-400	240 RM - 400		456150
	300-630	800	30 - 42	400 - 630	400-630	300 - 630		456151
U ₀ /U (U _m) 12/20 (24) kV - 18/30 (36) kV								
CCMSV 36 kV	25-95	700	21.4 - 32			95	25 - 95	456153
	35-150	700	22.3 - 32			95 - 150	35 - 150	456154
	95-240	750	26 - 36			185 - 240	95 - 240	443213
	240-400	800	30.5 - 42			300 - 400	240 - 400	456155
	300-630	850	35 - 54			400 - 630	300 - 630	456156

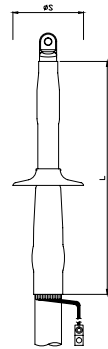
CABLE SETS FOR SCREENED
POLYMERIC CABLES



Cable terminations for 1-core cables



Dimensions



Ø S = Diameter of cable shed

CHESK-I
1-core indoor cable termination

with screw cable lugs, for all 1-core polymeric cables
Hybrid cable terminations CHESK-I are suitable for all 1-core polymeric-insulated cables (PVC, PE, XLPE, EPR) with different types of semi-conductive layers (graphite-coated, removable or strippable) and screen design (copper wire or tape). With screw cable lugs for main conductor and copper wire screen.

Characteristics

- Flexible silicone stress control elements ensure reliable stress control under all operating conditions
- Combination of slip-on and heat shrinkable components
- Wide cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor

Voltage level

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

Note

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

Test standards

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

Scope of delivery

1 set for 3 phases, heat shrinkable tube (tracking resistant), silicone stress control elements, silicone sheds, sealing tape, screw cable lugs, assembly material, assembly instructions

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

→ Continued on the next page

CABLE SETS FOR SCREENED
POLYMERIC CABLES



Cable terminations for 1-core cables

→ Continuation

CHESK-I
1-core indoor cable termination

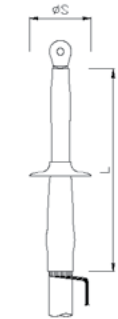
						12 kV	17.5 kV	24 kV	36 kV	42 kV	
Type	L mm	min. Ø over core insulation after removal of the outer conductive layer mm	Number of sheds per phase	Ø S mm	Nominal cross section mm²						Art.-No.
U ₀ /U (U _m) 6/10 (12) kV - 6.35/11 (12) kV											
CHESK-I 12kV	25-95	300	12.6			25 - 95					290443
	70-150	300	17.3			70 - 150					309514
	95-240	300	17.3			95 - 240					290444
	240-400	300	19.9			240 - 400					309516
	400-630	310	27.3			400 - 630					369496
	630-1000	310	36.8			630 - 1000					369497
U ₀ /U (U _m) 8.7/15 (17.5) kV											
CHESK-I 17kV	35-95	300	17.3	1	85		35 - 95				309517
	50-150	300	17.3	1	85		50 - 150				309519
	95-240	300	19.9	1	85		95 - 240				309520
	240-400	300	23.1	1	85		240 - 400				309521
	400-630	310	27.3	1	115		400 - 630				369505
	630-1000	310	36.8	1	123		630 - 1000				369506
U ₀ /U (U _m) 12/20 (24) kV - 12.7/22 (24) kV											
CHESK-I 24kV	25-95	300	17.3	1	85			25 - 95			309522
	50-150	300	17.3	1	85			50 - 150			309523
	95-240	300	19.9	1	85			95 - 240			309525
	240-400	300	27.3	1	115			240 - 400			309526
	400-630	310	27.3	1	115			400 - 630			364848
	630-1000	310	36.8	1	123			630 - 1000			369498
U ₀ /U (U _m) 18/30 (36) kV - 19/33 (36) kV											
CHESK-I 36kV	16-95	500	19.9	2	85				16 - 95		309527
	50-150	500	23.1	2	85				50 - 150		309528
	95-240	500	23.1	2	85				95 - 240		309529
	240-400	500	27.3	2	115				240 - 400		309530
	400-630	500	36.8	2	115				400 - 630		369499
	630-1000	500	36.8	2	123				630 - 1000		369500
U ₀ /U (U _m) 20,8/36(42) kV											
CHESK-I 42kV	50-150	700	25.3	4	85					50-150	309531
	95-240	700	27.5	4	115					95-240	289708
	240-400	700	32.5	4	115					240-400	309533
	400-630	700	40.3	4	115					400-630	369501
	630-1000	700	40.3	4	123					630-1000	369502

CABLE SETS FOR SCREENED POLYMERIC CABLES

Cable terminations for 1-core cables



Dimensions



Ø S = Diameter of cable shed

CHE-I
1-core indoor cable termination

for all 1-core polymeric cables
Hybrid cable terminations CHE-I are suitable for all 1-core polymeric-insulated cables (PVC, PE, XLPE, EPR) with different types of semi-conductive layers (graphite-coated, removable or strippable) and screen design (copper wire or tape). Suitable for compression cable lugs.

- Characteristics**

 - Flexible silicone stress control elements ensure reliable stress control under all operating conditions
 - Combination of slip-on and heat shrinkable components
 - Wide cross-section range
 - Quick, safe and easy assembly
 - Ready for immediate operation

Storage conditions/Shelf life

 - Unlimited shelf life
- Application/Suitability**

 - Indoor

Voltage level

 - U₀/U (U_m) 6/10 (12) kV - 19/33 (36) kV

Note

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

Test standards

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

Scope of delivery
1 set for 3 phases, heat shrinkable tube (tracking resistant), silicone stress control elements, silicone sheds, sealing tape, assembly material, assembly instructions

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

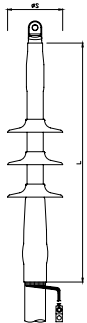
Type	L mm	min. Ø over core insulation after removal of the outer conductive layer mm	Number of sheds per phase	Ø S mm	12 kV	17.5 kV	24 kV	36 kV	42 kV	Art.-No.
					Nominal cross section mm²					
U ₀ /U (U _m) 6/10 (12) kV - 6.35/11 (12) kV										
CHE-I 12kV	10-25	300	9.9		10 - 25					193414
	25-95	300	12.6		25 - 95					193416
	95-240	300	17.3		95 - 240					194017
	150-400	300	19.9		150 - 400					194018
	240-500	300	23.1		240 - 500					194019
	400-800	300	27.3		400 - 800					194030
	800-1000	300	36.8		800 - 1000					194031
U ₀ /U (U _m) 8.7/15 (17.5) kV										
CHE-I 17kV	10-16	300	9.9	1	80	10 - 16				194032
	16-50	300	12.6	1	80	16 - 50				194033
	70-240	300	17.3	1	85	70 - 240				194034
	120-300	300	19.9	1	85	120 - 300				194035
	185-400	300	23.1	1	85	185 - 400				194036
	300-630	300	27.3	1	115	300 - 630				194037
	630-1000	300	36.8	1	123	630 - 1000				194038
U ₀ /U (U _m) 12/20 (24) kV - 12.7/22 (24) kV										
CHE-I 24kV	10-35	300	12.6	1	85		10 - 35			194039
	25-150	300	17.3	1	85		25 - 150			194040
	70-240	300	19.9	1	85		70 - 240			194041
	120-300	300	23.1	1	85		120 - 300			194042
	240-500	300	27.3	1	115		240 - 500			194043
	630-1000	300	36.8	1	123		630 - 1000			194044
	U ₀ /U (U _m) 18/30 (36) kV - 19/33 (36) kV									
CHE-I 36kV	35-70	500	19.9	2	85			35 - 70		194045
	50-150	500	23.1	2	85			50 - 150		194046
	150-400	500	27.3	2	115			150 - 400		194047
	500-800	500	36.8	2	123			500 - 800		194048
U ₀ /U (U _m) 20.8/36 (42) kV										
CHE-I 42kV	50-150	700	24.2	4	85				50-150	196508
	120-400	700	28.6	4	115				120-400	196509

CABLE SETS FOR SCREENED POLYMERIC CABLES

Cable terminations for 1-core cables



Dimensions



Ø S = Diameter of cable shed

CHESK-F
1-core outdoor cable termination

with screw cable lugs, for all 1-core polymeric cables
Hybrid cable terminations CHESK-F are suitable for all 1-core polymeric-insulated cables (PVC, PE, XLPE, EPR) with different types of semi-conductive layers (graphite-coated, removable or strippable) and screen design (copper wire or tape). With screw cable lugs for main conductor and copper wire screen.

- Characteristics**

 - Flexible silicone stress control elements ensure reliable stress control under all operating conditions
 - Combination of slip-on and heat shrinkable components
 - Wide cross-section range
 - Quick, safe and easy assembly
 - Ready for immediate operation

Storage conditions/Shelf life

 - Unlimited shelf life
- Application/Suitability**

 - Outdoor

Voltage level

 - U₀/U (U_m) 6/10 (12) kV - 19/33 (36) kV

Note

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

Test standards

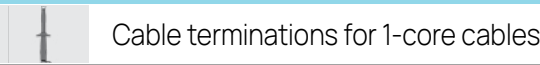
 - CENELEC HD 629.1 (DIN VDE 0278, part 629-1)

Scope of delivery
1 set for 3 phases, heat shrinkable tube (tracking resistant), silicone stress control elements, silicone sheds, sealing tape, screw cable lugs, assembly material, assembly instructions

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

→ Continued on the next page

CABLE SETS FOR SCREENED POLYMERIC CABLES



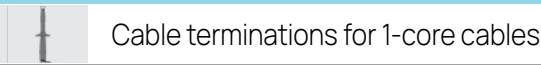
Cable terminations for 1-core cables

→ Continuation
CHESK-F
1-core outdoor cable termination

					12 kV	17.5 kV	24 kV	36 kV	42 kV	
Type	L mm	min. Ø over core insulation after removal of the outer conductive layer mm	Number of sheds per phase	Ø S mm	Nominal cross section mm²					Art.-No.
U ₀ /U (U _m) 6/10 (12) kV - 6.35/11 (12) kV										
CHESK-F 12kV	25-95	300	12.6	1	80	25 - 95				309534
	70-150	300	17.3	1	85	70 - 150				309535
	95-240	300	17.3	1	85	95 - 240				309536
	240-400	300	19.9	1	85	240 - 400				309537
	400-630	310	27.3	1	115	400 - 630				369503
630-1000	310	36.8	1	123	630 - 1000				369504	
U ₀ /U (U _m) 8.7/15 (17.5) kV										
CHESK-F 17kV	35-95	500	17.3	2	85		35 - 95			309539
	50-150	500	17.3	2	85		50 - 150			309540
	95-240	500	19.9	2	85		95 - 240			309541
	240-400	500	23.1	2	85		240 - 400			309542
	400-630	500	27.3	2	115		400 - 630			369508
630-1000	500	36.8	2	123		630 - 1000			369509	
U ₀ /U (U _m) 12/20 (24) kV - 12.7/22 (24) kV										
CHESK-F 24kV	25-95	500	17.3	3	85			25 - 95		309545
	50-150	500	17.3	3	85			50 - 150		309546
	95-240	500	19.9	3	85			95 - 240		309548
	240-400	500	27.3	3	115			240 - 400		309550
	400-630	500	27.3	3	115			400 - 630		364847
630-1000	500	36.8	3	123			630 - 1000		369507	
U ₀ /U (U _m) 18/30 (36) kV - 19/33 (36) kV										
CHESK-F 36kV	16-95	700	19.9	4	85				16 - 95	309551
	50-150	700	23.1	4	85				50 - 150	309552
	95-240	700	23.1	4	85				95 - 240	309553
	240-400	700	27.3	4	115				240 - 400	309554
	400-630	700	36.8	4	115				400 - 630	369520
630-1000	700	36.8	4	123				630 - 1000	369521	
U ₀ /U (U _m) 20.8/36(42) kV										
CHESK-F 42kV	50-150	820	25.3	6	85				50-150	309555
	95-240	820	27.5	6	115				95-240	362230
	240-400	820	32.5	6	115				240-400	309556
	400-630	820	40.3	6	115				400-630	369522
	630-1000	820	40.3	6	123				630-1000	369523

→ Continued on the next page

CABLE SETS FOR SCREENED POLYMERIC CABLES



Cable terminations for 1-core cables



Dimensions



Ø S = Diameter of cable shed

CHE-F
1-core outdoor cable termination

for all 1-core polymeric cables
Hybrid cable terminations CHE-F are suitable for all 1-core polymeric-insulated cables (PVC, PE, XLPE, EPR) with different types of semi-conductive layers (graphite-coated, removable or strippable) and screen design (copper wire or tape). Suitable for compression cable lugs.

Characteristics

- Flexible silicone stress control elements ensure reliable stress control under all operating conditions
- Combination of slip-on and heat shrinkable components
- Wide cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Outdoor

Voltage level

- U₀/U (U_m) 6/10 (12) kV - 19/33 (36) kV

Note

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

Test standards

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

Scope of delivery

1 set for 3 phases, heat shrinkable tube (tracking resistant), silicone stress control elements, silicone sheds, sealing tape, assembly material, assembly instructions

Optional accessory:

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

					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

CABLE SETS FOR SCREENED POLYMERIC CABLES



Cable terminations for 1-core cables



CAESK-I
1-core indoor cable termination

with screw cable lugs, for all 1-core polymeric cables

Contrax cable terminations CAESK-I are suitable for all 1-core polymeric-insulated cables (PVC, PE, XLPE, EPR) with different types of semi-conductive layers (graphite-coated, removable or strippable) and screen design (wire or tape). With screw cable lugs.

Characteristics

- Wide cross-section range
- Silicone slip-on components for quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor

Voltage level

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

Note

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

Test standards

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

Dimensions



Ø S = Diameter of cable shed

Scope of delivery

3 one-piece slip-on silicone cable terminations with integrated stress control element, silicone tubes, sealing tape, screw cable lugs for main conductor, assembly material, assembly instructions

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

					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

CABLE SETS FOR SCREENED POLYMERIC CABLES



Cable terminations for 1-core cables



CAE-I
1-core indoor cable termination

for all 1-core polymeric cables

Contrax cable terminations CAE-I are suitable for all 1-core polymeric-insulated cables (PVC, PE, XLPE, EPR) with different types of semi-conductive layers (graphite-coated, removable or strippable) and screen design (wire or tape). Suitable for compression cable lugs.

Characteristics

- Wide cross-section range
- Silicone slip-on components for quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor

Voltage level

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

Note

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

Test standards

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

Dimensions



Ø S = Diameter of cable shed

Scope of delivery

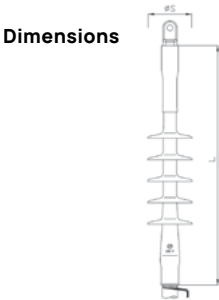
3 one-piece slip-on silicone cable terminations with integrated stress control element, sealing tape, assembly material, assembly instructions

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

						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

CABLE SETS FOR SCREENED POLYMERIC CABLES

Cable terminations for 1-core cables



Ø S = Diameter of cable shed

CAESK-F
1-core outdoor cable termination

with screw cable lugs, for all 1-core polymeric cables

Contrax cable terminations CAESK-F are suitable for all 1-core polymeric-insulated cables (PVC, PE, XLPE, EPR) with different types of semi-conductive layers (graphite-coated, removable or strippable) and screen design (wire or tape). With screw cable lugs.

Characteristics

- Wide cross-section range
- Silicone slip-on components for quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Outdoor

Voltage level

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

Note

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

Test standards

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

Scope of delivery

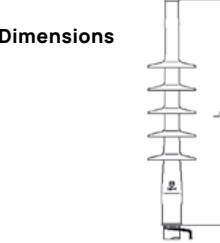
3 one-piece slip-on silicone cable terminations with integrated stress control element, silicone tubes, sealing tape, screw cable lugs for main conductor, assembly material, assembly instructions

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	

CABLE SETS FOR SCREENED POLYMERIC CABLES

Cable terminations for 1-core cables



Ø S = Diameter of cable shed

CAE-F
1-core outdoor cable termination

for all 1-core polymeric cables

Contrax cable terminations CAE-F are suitable for all 1-core polymeric-insulated cables (PVC, PE, XLPE, EPR) with different types of semi-conductive layers (graphite-coated, removable or strippable) and screen design (wire or tape). Suitable for compression cable lugs.

Characteristics

- Wide cross-section range
- Silicone slip-on components for quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Outdoor

Voltage level

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

Note

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

Test standards

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

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

CABLE SETS FOR SCREENED
POLYMERIC CABLES



Separable connectors for 1-core cables



CWS 250A

Elbow separable connector

for all 1-core polymeric cables, for outer cone system terminals type A

Cellplux elbow separable connectors CWS are suitable for connecting all polymeric-insulated 1-core cables (PVC, PE, XLPE, EPR), with different types of semi-conductive layers (graphite-coated or strippable) and screen design (wire or tape screen), to switching equipment and transformers having an outer cone system type A, up to maximum network voltage of 24 kV in accordance with EN 50180 and EN 50181.

Characteristics

- With capacitive measuring point
- Individually tested
- Outer semi-conductive layer made of semi-conductive EPDM provides protection from exposed electrical parts
- Cable sheath insulation fault test may be performed while under voltage
- For copper and aluminium conductors
- Quick, safe and easy assembly
- Suitable for a wide range of applications due to integrated screw cable lug

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor

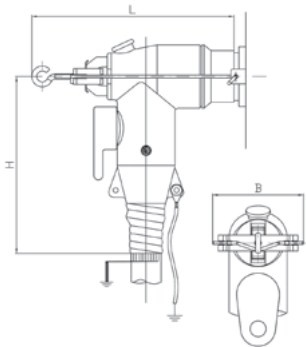
Voltage level

- $U_o/U (U_m)$ 6/10 (12) kV - 12.7/22 (24) kV

Test standards

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

Dimensions



Scope of delivery

Set of 3 separable connectors, silicone stress control elements, earthing set, screw cable lug for main conductor, assembly material, assembly instructions

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

Note: Elbow separable connections for alternative cross-sections and for class 5 conductors on request

						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 MEGA	200	80	178	14.7	50 - 95	25 - 95	16 - 95	295167
	70-150 MEGA	200	80	178	19.9	120 - 150	95 - 150	70 - 150	293792

CABLE SETS FOR SCREENED
POLYMERIC CABLES



Separable connectors for 1-core cables



CGS 250A

Straight separable connector

for all 1-core polymeric cables, for outer cone system terminals type A

Cellplux straight separable connectors CGS are suitable for connecting all polymeric-insulated 1-core cables (PVC, PE, XLPE, EPR), with different types of semi-conductive layers (graphite-coated or strippable) and screen design (wire or tape screen) for switching equipment and transformers having an outer cone system type A, up to maximum network voltage of 24 kV in accordance with EN 50180 and EN 50181.

Characteristics

- With capacitive measuring point
- Individually tested
- Outer semi-conductive layer made of semi-conductive EPDM provides protection from exposed electrical parts
- Cable sheath insulation fault test may be performed while under voltage
- For copper and aluminium conductors
- Quick, safe and easy assembly
- Suitable for a wide range of applications due to integrated screw cable lug

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Outdoor

Voltage level

- $U_o/U (U_m)$ 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 Application/Suitability)
- Indoor

Voltage level

- $U_o/U (U_m)$ 6/10 (12) kV - 12.7/22 (24) kV

Test standards

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

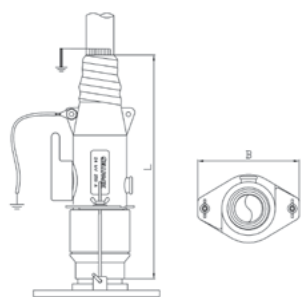
Storage conditions/Shelf life

- Unlimited shelf life for conductor insulation.)

Test standards

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

Dimensions



Scope of delivery

Set of 3 separable connectors, silicone stress control elements, earthing set, screw cable lug for main conductor, assembly material, assembly instructions

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

Note: Straight separable connections for alternative cross-sections and for class 5 conductors on request

					12 kV	17.5 kV	24 kV	
Type	L mm	B 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								
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

CABLE SETS FOR SCREENED POLYMERIC CABLES



Separable connectors for 1-core cables



CWS 400A

Elbow separable connector

for all 1-core polymeric cables, for outer cone system terminals type B

Cellplux elbow separableconnectors CWS are suitable for connecting all poly-meric-insulated 1-core cables (PVC, PE, XLPE, EPR), with different types of semi-conductive layers (graphite-coated or strippable) and screen design (wire or tape screen), to switching equipment and transformers having an outer cone system type B, up to maximum network voltage of 36 kV in accordance with EN 50180 and EN 50181.

Characteristics

- With capacitive measuring point
- Individually tested
- Outer semi-conductive layer made of semi-conductive EPDM provides protection from exposed electrical parts
- Cable sheath insulation fault test may be performed while under voltage
- For copper and aluminium conductors
- Quick, safe and easy assembly
- Suitable for a wide range of applications due to integrated screw cable lug

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor

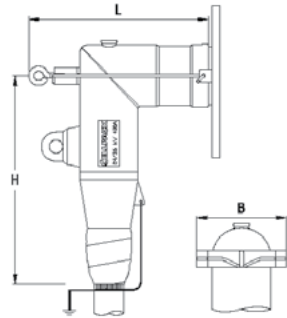
Voltage level

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

Test standards

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

Dimensions



Scope of delivery

Set of 3 separable connectors, silicone stress control elements, earthing set, screw cable lug for main conductor, assembly material, assembly instructions

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

Note: Elbow separable connections for alternative cross-sections and for class 5 conductors on request

						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

CABLE SETS FOR SCREENED POLYMERIC CABLES



Separable connectors for 1-core cables



CTS 630A

T-shaped separable connector

for all 1-core polymeric cables, for outer cone system terminals type C

Cellplux screwable T-shaped separable connectors CTS are suitable for connecting all polymeric-insulated 1-core cables (PVC, PE, XLPE, EPR), with different types of semi-conductive layers (graphite-coated or strippable) and screen design (wire or tape screen) to switching equipment and transformers having an outer cone system type C, up to maximum network voltage of 36 kV in accordance with EN 50180 and EN 50181

Characteristics

- With capacitive measuring point
- Individually tested
- Outer semi-conductive layer made of semi-conductive EPDM provides protection from exposed electrical parts
- Cable sheath insulation fault test may be performed while under voltage
- For copper and aluminium conductors
- Quick, safe and easy assembly
- Suitable for a wide range of applications due to integrated screw cable lug

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor
- Outdoor

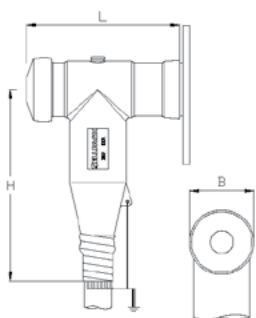
Voltage level

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

Test standards

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

Dimensions



Scope of delivery

Set of 3 separable connectors, silicone stress control elements, earthing set, screw cable lug for main conductor, assembly material, assembly instructions

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

Note: Other T-shaped separable connectors (cross-sections, class 5) available on request

						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

CABLE SETS FOR SCREENED POLYMERIC CABLES



Separable connectors for 1-core cables



CTS 1250A
T-shaped separable connector

for all 1-core polymeric cables, for outer cone system terminals type C

Cellplus screwable T-shaped separable connectors CTS are suitable for connecting all polymeric-insulated 1-core cables (PVC, PE, XLPE, EPR), with different types of semi-conductive layers (graphite-coated or strippable) and screen design (wire or tape screen) to switching equipment and transformers having an outer cone system type C, up to maximum network voltage of 36 kV in accordance with EN 50180 and EN 50181.

Characteristics

- With capacitive measuring point
- Individually tested
- Outer semi-conductive layer made of semi-conductive EPDM provides protection from exposed electrical parts
- Cable sheath insulation fault test may be performed while under voltage
- For copper and aluminium conductors
- Quick, safe and easy assembly
- Suitable for a wide range of applications due to integrated screw cable lug

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor

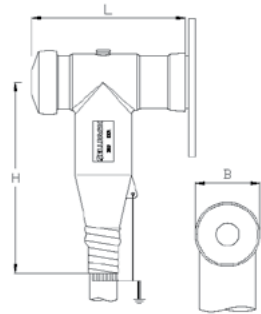
Voltage level

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

Test standards

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

Dimensions



Scope of delivery

Set of 3 separable connectors, silicone stress control elements, earthing set, screw cable lug for main conductor, screw cable lug for wire screen, assembly material, assembly instructions

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

Note: Other T-shaped separable connectors (cross-sections, class 5) available on request

						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

CABLE SETS FOR SCREENED POLYMERIC CABLES



Separable connectors for 1-core cables



CTKS 630A
T-shaped separable coupling connector

for all 1-core polymeric cables, for separable connector type CTS

Cellplus T-shaped separable coupling connectors CTKS are suitable for connecting all polymeric-insulated 1-core cables (PVC, PE, XLPE, EPR), with different types of semi-conductive layers (graphite-coated or strippable) and screen design (wire or tape screen) to the back of T-shaped separable connectors type CTS.

Characteristics

- With capacitive measuring point
- Individually tested
- Outer semi-conductive layer made of semi-conductive EPDM provides protection from exposed electrical parts
- Cable sheath insulation fault test may be performed while under voltage
- For copper and aluminium conductors
- Quick, safe and easy assembly
- Suitable for a wide range of applications due to integrated screw cable lug

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor

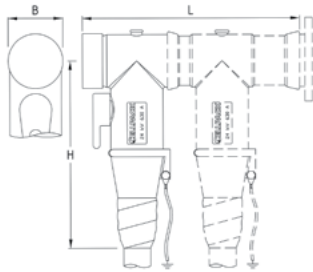
Voltage level

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

Test standards

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

Dimensions



Scope of delivery

Set of 3 separable coupling connectors, silicone stress control elements, earthing set, screw cable lug for main conductor, assembly material, assembly instructions

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

Note: T-shaped separable coupling connector for alternative cross-sections and for class 5 conductors on request

						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

CABLE SETS FOR SCREENED POLYMERIC CABLES

Separable connectors for 1-core cables

CABLE SETS FOR SCREENED POLYMERIC CABLES

Separable connectors for 1-core cables



CTKSA
Coupling surge arrester

Class DH, for separable connector type CTS

The Cellplux surge arrester CTKSA Class DH are designed to protect encapsulated medium voltage systems. The CTKSA coupling surge arresters are specifically designed for mounting on shielded, screw-type Cellpack cable connections and comply with the international standards IEC 60099-4 and IEC 60071.

Characteristics

- With capacitive measuring point
- Individually tested
- Safe-to-touch as the EPDM body is protected by outer semiconductive screen and it is connected to earth
- Quick, safe and easy assembly

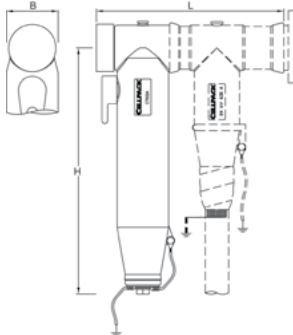
Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor
- Outdoor

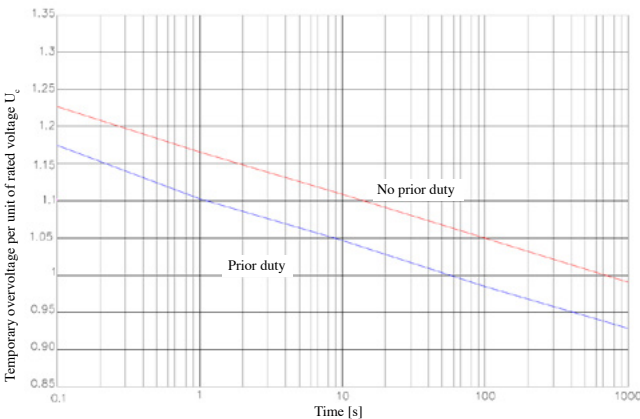
Dimensions



Scope of delivery

Set of 3 surge arresters, assembly material, assembly instructions

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



Type		L mm	B mm	H mm	Art.-No.
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, I _n [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.
CTS 630A	257622
CTS 1250A	374292
CTKSA	478149
CPS/CPES/CPAS	365078
LPVT (voltage sensors) (IEC-61869-11)	391083

CABLE SETS FOR SCREENED
POLYMERIC CABLES



Separable connectors for 1-core cables



Dimensions



CIK
Voltage-resistant insulating cap
for bushings type A 250A and type C 630A

The voltage-resistant insulating caps CIK are suitable for electrical insulation of bushings (outer cones) type A 250A and type C 630A on transformers and gas-insulated switchgears up to 36 kV, in accordance with EN 50180 and EN 50181.

Characteristics

- Submersible
- Outer semi-conductive layer made of semi-conductive EPDM provides protection from exposed electrical parts
- Easy assembly

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor
- Outdoor

Voltage level

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

Scope of delivery
Set of 3 voltage resistant insulating caps, assembly material, assembly instructions

Type		B	D	H	Art.-No.
		mm			
U ₀ /U (U _m) 6/10 (12) kV - 12,7/22 (24) kV					
CIK 250A 24kV		82	68	116	265023
CIK 630A 24kV		93	82	160	372710
U ₀ /U (U _m) 6/10 (12) kV - 19/33 (36) kV					
CIK 630A 36kV		93	82	160	265024

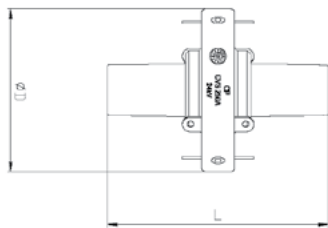
CABLE SETS FOR SCREENED
POLYMERIC CABLES



Separable connectors for 1-core cables



Dimensions



CVS 250A
Connecting element up to 24 kV
for separable connectors type CWS and type CGS, for outer cone system terminals type A

The connecting element CVS is suitable for connecting two elbow separable connectors type CWS 250A and/or straight separable connectors CGS up to 24 kV. Its dimensions correspond to outer cone systems type A, in accordance with EN 50180 and EN 50181.

Characteristics

- Individually tested
- Safe and easy to handle
- Easy assembly

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

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

CABLE SETS FOR SCREENED
POLYMERIC CABLES



Separable connectors for 1-core cables



CKS 1250A
Coupling element up to 36 kV
for T-shaped separable connectors type CTS

The coupling element CKS is suitable for connecting two T-shaped separable connectors CTS up to 36 kV. It can be used for 630 A and 1250 A applications.

Characteristics

- Individually tested
- Safe and easy to handle
- Easy assembly

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor

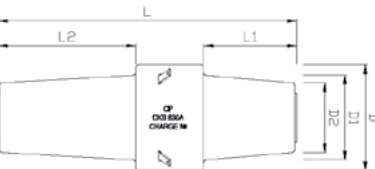
Voltage level

- $U_0/U (U_m)$ 19/33 (36) kV

Test standards

- IEC 60137

Dimensions



D = Outer diameter

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

Type	L mm	L1 mm	L2 mm	D mm	D1 mm	D2 mm	Art.-No.
$U_0/U (U_m)$ 19/33 (36) kV							
CKS 1250A 36kV	196.5	61.5	91	70	56	46	450152

CABLE SETS FOR SCREENED
POLYMERIC CABLES



Separable connectors for 1-core cables



CPAS
End-plugs
for Cellplux separable connector type CTS 630A / 1250A

The CPAS End-plug establishes connection on front side of the CTS 630A / 1250A separable connectors. CPAS together with Test and earthing kit CPES makes it possible to carry out testing of cables installed with CTS separable connectors without connecting them to Switchgear.

Characteristics

- Individually tested
- Safe and easy to handle
- Easy Assembly

Storage conditions/ Shelf life

- Unlimited shelf life

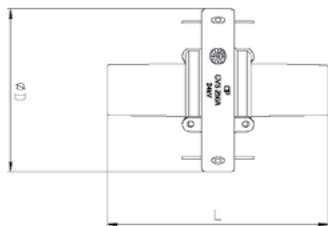
Application/Suitability

- Indoor
- Outdoor

Voltage level

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

Dimensions



Scope of delivery
Set of 3 End-plugs,, assembly material, assembly instructions.

Type	Art.-No.
$U_0/U (U_m)$ 6/10 (12) kV - 19/33 (36) kV	
CPAS	367094

CABLE SETS FOR SCREENED
POLYMERIC CABLES



Separable connectors for 1-core cables



CPES

Test and earthing kit

for Cellplux separable connectors type CTS and type CTKS

The test and grounding set is used on the one hand to connect the respective cable conductors to a test voltage source and on the other hand to establish a reliable grounding of cable conductors on all Cellplux T-connectors type CTS and CTKS.

Characteristics

- Safe and easy to handle

Application/Suitability

- Cable testing
- Cable fault location
- Earthing for work
- Phase comparison

Test standards

- For cables according CENELEC HD 620, VDE 0275 part 620

Voltage level

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

Scope of delivery

Chest, test adapter (Length = 345 mm, Thread = M12), set of 3 earthing adapters (Ø Ball = 20mm), assembly material, assembly instructions

Optional accessory: Accessory kit ZS-CPS/CPES/CPAS (Art.-No. 365078)

Type		Art.-No.
$U_0/U(U_m)$ 6/10 (12) kV - 19/33 (36) kV		
CPES		414307

Test	Test voltage	Test time
AC 45-60 Hz	max 2 U_0	max 60 minutes
VLF 0.1 Hz	max 3 U_0	max 60 minutes

CABLE SETS FOR SCREENED
POLYMERIC CABLES



Separable connectors for 1-core cables



CPS

Test kit

for Cellplux separable connectors type CTS and type CTKS

The test set is used to connect the respective cable conductors to a test voltage source on all Cellplux T-connectors type CTS and CTKS.

Characteristics

- Safe and easy to handle

Application/Suitability

- Cable testing
- Cable fault location
- Phase comparison

Test standards

- For cables according CENELEC HD 620, VDE 0275 part 620

Voltage level

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

Scope of delivery

Chest, set of 3 test adapters (Length = 345 mm, Thread = M12), assembly material, assembly instructions

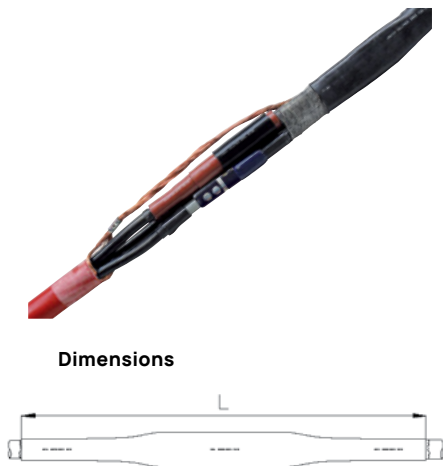
Optional accessory: Accessory kit ZS-CPS/CPES/CPAS (Art.-No. 365078)

Type		Art.-No.
$U_0/U(U_m)$ 6/10 (12) kV - 19/33 (36) kV		
CPS		302227

Test	Test voltage	Test time
AC 45-60 Hz	max 2 U_0	max 60 minutes
VLF 0.1 Hz	max 3 U_0	max 60 minutes

CABLE SETS FOR SCREENED POLYMERIC CABLES

 Straight-through joints for 3-core cables



CHMSV3
3-core straight-through joint
with screw connectors, for all 3-core polymeric cables
Hybrid straight-through joints CHMSV3 are suitable for all 3-core polymeric-insulated cables (PVC, PE, XLPE, EPR). They allow the connection of cables with copper wire screen with different cross sections and conductor materials even with different cable designs concerning the semi-conductive layer (graphite-coated, removable or strippable). With screw connectors.

- Characteristics**

 - Reliable stress control due to flexible silicone stress control elements
 - For both copper and aluminium conductors
 - For all cables with copper wire screen
 - Wide conductor and cross-section range
 - Quick, safe and easy assembly
 - Ready for immediate operation
 - Suitable for a wide range of applications due to integrated screw connector
- Storage conditions/Shelf life**

 - Unlimited shelf life
- Application/Suitability**

 - Indoor
 - Outdoor
 - Underground
 - Water
 - Installation ducts
 - Ductwork
- Voltage level**

 - U₀/U (U_m) 6/10 (12) kV - 19/33 (36) kV
- Test standards**

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

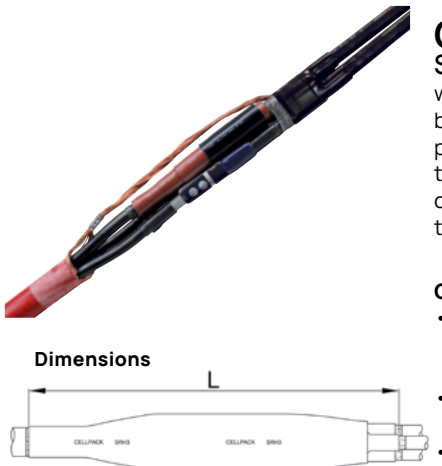
Scope of delivery
Thick wall heat shrinkable insulation tubes, thick wall heat shrinkable outer tube with hot melt adhesive, silicone stress control element, copper braid tape, field control filling tape (blue), innovative screw connectors with conductive cover, screw connector for copper-wire screen, assembly material, assembly instructions

Optional accessory: EGA earthing kit for cables with tape screen (see Connecting technology)
Note: Straight-through joints with larger cross-section available on request.

				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

CABLE SETS FOR SCREENED POLYMERIC CABLES

 Straight-through joints for 3-core cables



CHMSV3-1
Straight-through joint
with screw connectors, for connecting from 3-core with three 1-core polymeric cables
Hybrid straight-through joints CHMSV3-1 are suitable for connecting 3-core polymeric cables with three 1-core polymeric cables (PVC, PE, XLPE, EPR). They allow the connection of cables with copper wire screen with different cross sections and conductor materials even with different cable designs concerning the semi-conductive layer (graphite-coated, removable or strippable). With screw connectors.

- Characteristics**

 - Reliable stress control due to flexible silicone stress control elements
 - For both copper and aluminium conductors
 - For all cables with copper wire screen
 - Wide conductor and cross-section range
 - Quick, safe and easy assembly
 - Ready for immediate operation
 - Suitable for a wide range of applications due to integrated screw connector
- Storage conditions/Shelf life**

 - Unlimited shelf life
- Application/Suitability**

 - Indoor
 - Outdoor
 - Underground
 - Water
 - Installation ducts
 - Ductwork
- Voltage level**

 - U₀/U (U_m) 6/10 (12) kV - 19/33 (36) kV
- Test standards**

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

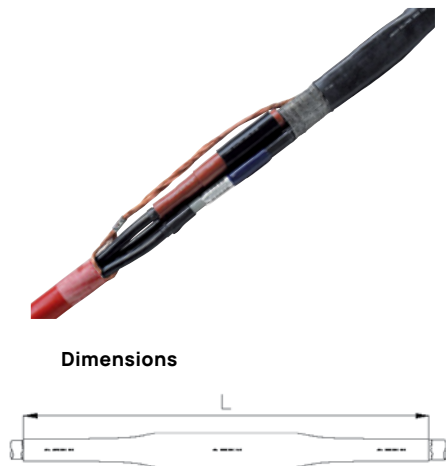
Scope of delivery
Thick wall heat shrinkable insulation tubes, thick wall heat shrinkable outer tube with hot melt adhesive, silicone stress control element, copper braid tape, field control filling tape (blue), innovative screw connectors with conductive cover, screw connector for copper-wire screen, assembly material, assembly instructions

Optional accessory: EGA earthing kit for cables with tape screen (see Connecting technology)
Note: Straight-through joints with larger cross-section available on request.

			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

CABLE SETS FOR SCREENED POLYMERIC CABLES

 Straight-through joints for 3-core cables



CHM3
3-core straight-through joint
for all 3-core polymeric cables
Hybrid straight-through joints CHM3 are suitable for all 3-core polymeric-insulated cables (PVC, PE, XLPE, EPR). They allow the connection of cables with different cross sections and conductor materials even with different cable designs concerning the semi-conductive layer (graphite-coated, removable or strippable) and screen design (copper wire or tape screen). Suitable for compression connectors.

- Characteristics**

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

Storage conditions/Shelf life

 - Unlimited shelf life

Application/Suitability

 - Indoor
 - Outdoor
 - Underground
 - Water
 - Installation ducts
 - Ductwork
- Voltage level**

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

Note

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

Test standards

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

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

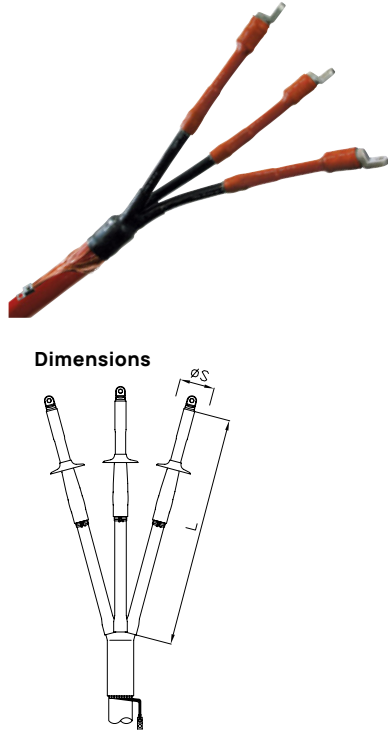
Optional accessory: Compression connectors (see Connecting technology)

Note: Straight-through joints with larger cross-section available on request.

						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

CABLE SETS FOR SCREENED POLYMERIC CABLES

 Cable terminations for 3-core cables



CHESK-3I(A)
3-core indoor cable termination
with screw cable lugs, for all 3-core polymeric cables
Hybrid cable terminations CHESK-3I(A) are suitable for all 3-core polymeric insulated cables (PVC, PE, XLPE, EPR) with different types of semi-conductive layers (graphite-coated, removable or strippable) and screen design (copper wire or tape). With screw cable lugs.

- Characteristics**

 - Flexible silicone stress control elements ensure reliable stress control under all operating conditions
 - Combination of slip-on and heat shrinkable components
 - Wide cross-section range
 - Quick, safe and easy assembly
 - Ready for immediate operation

Storage conditions/Shelf life

 - Unlimited shelf life
- Application/Suitability**

 - Indoor

Voltage level

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

Note

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

Test standards

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

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

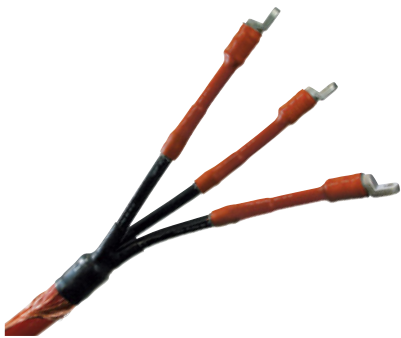
Optional accessory: EGA earthing kit for cables with tape screen (see Connecting technology)

						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

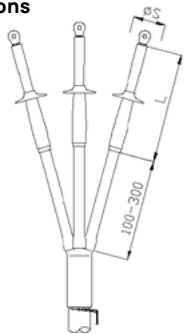
CABLE SETS FOR SCREENED
POLYMERIC CABLES



Cable terminations for 3-core cables



Dimensions



Ø S = Diameter of cable shed

CHE-3I(A)
3-core indoor cable termination
for all 3-core polymeric cables

Hybrid cable terminations CHE-3I(A) are suitable for all 3-core polymeric-insulated cables (PVC, PE, XLPE, EPR) with different types of semi-conductive layers (graphite-coated, removable or strippable) and screen design (copper wire or tape). Suitable for compression cable lugs.

Characteristics

- Flexible silicone stress control elements ensure reliable stress control under all operating conditions
- Combination of slip-on and heat shrinkable components
- Wide cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor

Voltage level

- U₀/U (U_m) 6/10 (12) kV - 19/33 (36) kV

Note

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

Test standards

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

Scope of delivery

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

Optional accessory: Cable lugs (see Connecting technology)

EGA earthing kit for cables with tape screen (see Connecting technology)

Note: Other cable terminations available on request.

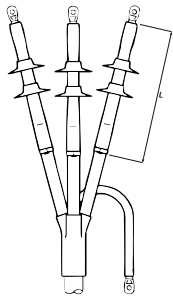
Type		L mm	min. Ø over core insulation after removal of the outer conductive layer mm	Number of sheds per phase	Ø S mm	12 kV	17.5 kV	24 kV	36 kV	Art.-No.
Nominal cross section mm²										
U ₀ /U (U _m) 6/10 (12) kV - 6.35/11 (12) kV										
CHE-3I(A) 12kV	10-25	300	9.9			10 - 25				146228
	25-95	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



Cable terminations for 3-core cables



Dimensions



Ø S = Diameter of cable shed

CHE-3I-T
3-core indoor cable termination
for 3-core polymeric flexible cables

Hybrid cable terminations CHE-3I are suitable for 3-core polymeric-insulated flexible cables of type: EpN 78, NTSCGEWOEU. Suitable for compression cable lugs.

Characteristics

- Flexible silicone stress control elements ensure reliable stress control under all operating conditions
- Combination of slip-on and heat shrinkable components
- Wide cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor

Voltage level

- U₀/U (U_m) 3,6/6 (7,2) - 12/20 (24) kV

Test standards

- CENELEC HD 629.1

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)

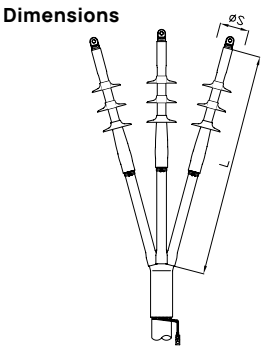
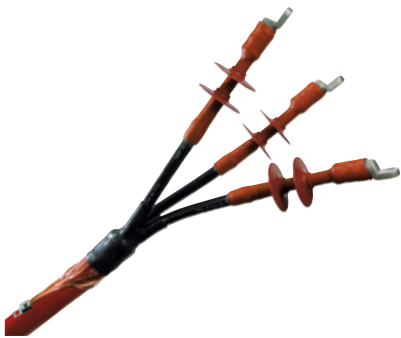
Note: Other customised terminations available on request

					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

CABLE SETS FOR SCREENED POLYMERIC CABLES



Cable terminations for 3-core cables



Ø S = Diameter of cable shed

CHESK-3F(A) 3-core outdoor cable termination

with screw cable lugs, for all 3-core polymeric cables

Hybrid cable terminations CHESK-3F(A) are suitable for all 3-core polymeric-insulated cables (PVC, PE, XLPE, EPR) with different types of semi-conductive layers (graphite-coated, removable or strippable) and screen design (copper wire or tape). With screw cable lugs.

Characteristics

- Flexible silicone stress control elements ensure reliable stress control under all operating conditions
- Combination of slip-on and heat shrinkable components
- Wide cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Outdoor

Voltage level

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

Note

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

Test standards

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

Scope of delivery

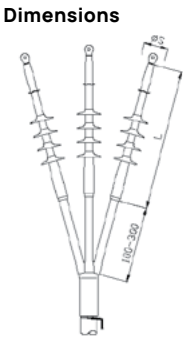
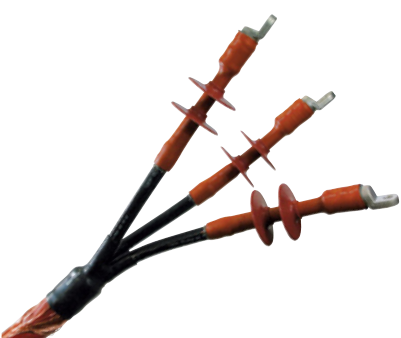
Spreader cap, heat shrinkable tube (tracking resistant), heat shrinkable tube, silicone stress control elements, silicone sheds, binding wire, sealing tape, screw cable lugs, assembly material, assembly instructions

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- 3F(A) 12kV	25-95	1200	12.6	1	80	25 - 95				309813
	95-240	1200	17.3	1	85	95 - 240				309815
	240-400	1200	19.9	1	85	240 - 400				309816
U ₀ /U (U _m) 12/20 (24) kV - 12.7/22 (24) kV										
CHESK- 3F(A) 24kV	25-95	1200	17.3	3	85		25 - 95	25 - 95		309820
	95-240	1200	19.9	3	85		95 - 240	95 - 240		309821
	240-400	1200	27.3	3	115		240 - 400	240 - 400		309822
U ₀ /U (U _m) 18/30 (36) kV - 19/33 (36) kV										
CHESK- 3F(A) 36kV	25-95	1200	19.9	4	85				25 - 95	309823
	95-240	1200	23.1	4	85				95 - 240	309824
	240-400	1200	27.3	4	115				240 - 400	309583



Cable terminations for 3-core cables



Ø S = Diameter of cable shed

CHE-3F(A) 3-core outdoor cable termination

for all 3-core polymeric cables

Hybrid cable terminations CHE-3F(A) are suitable for all 3-core polymeric-insulated cables (PVC, PE, XLPE, EPR) with different types of semi-conductive layers (graphite coated, removable or strippable) and screen design (copper wire or tape). Suitable for compression cable lugs.

Characteristics

- Flexible silicone stress control elements ensure reliable stress control under all operating conditions
- Combination of slip-on and heat shrinkable components
- Wide cross-section range
- Quick, safe and easy assembly

Storage conditions/Shelf life

- Unlimited shelf life
- Ready for immediate operation

Application/Suitability

- Outdoor

Voltage level

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

Note

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

Test standards

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

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



Transition joints

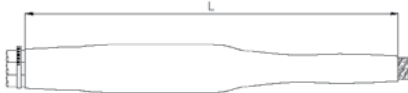
Overview: BBC Cellpack Cable sets selection table

Products	Belted cables			H-Type cables			3 lead sheath cables		
	Transition joints	Straight-through joints	Cable terminations	Transition joints	Straight-through joints	Cable terminations	Transition joints	Straight-through joints	Cable terminations
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



Dimensions



CHMPRSV3-1

Transition joint
with screw connectors, from belted cables/H-Type cables to 1-core polymeric cables

Hybrid transition joints CHMPRSV3-1 for transition to three 1-core polymeric-insulated cables, are suitable for belted cables and H-Type cables up to 17.5 kV. With screw connectors.

Characteristics

- Reliable stress control due to flexible silicone stress control elements
- Wide cross-section range
- Quick, safe and easy assembly
- Ready for immediate operation
- Suitable for a wide range of applications due to innovative integrated screw connector

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level

- U0/U (Um) 6/10 (12) kV - 8.7/15 (17.5) kV

Test standards

- CENELEC HD 629.2
(DIN VDE 0278, part 629-2)

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

				12 kV	17.5 kV	
Type	L mm	min. Ø over core insulation after removal of the outer conductive layer mm	Nominal cross section mm²			Art.-No.
U ₀ /U (U _m) 6/10 (12) kV - 8.7/15 (17.5) kV						
CHMPRSV3-1 17kV	35-95	1200	12.6	50 - 95	35 - 95	264988
	70-150	1200	17.3	95 - 150	70 - 150	265205
	95-240	1200	17.3	95 - 240	95 - 240	264769
	240-400	1200	23.1	240 - 400	240 - 400	265501

CABLE SETS FOR MASS-IMPREGNATED PAPER CABLES



Transition joints



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.

Dimensions



Characteristics

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

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level

- U0/U (Um) 6/10 (12) kV - 8.7/15 (17.5) kV

Test standards

- CENELEC HD 629.2 (DIN VDE 0278, part 629-2)

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 re- moval 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										
CHM- PR3-1 17kV	35-50	1100	12.6	35-70	25	130	35 - 50	20	110	197603
	70-240	1100	17.3	95 - 240	34	145	70 - 240	34	145	197604 ¹⁾
	240-400	1100	23.1	300 - 400	42	170	240 - 400	42	170	197606

¹⁾ Padding kit PS(G+H) 17/1 (Art.-No.197690) to be used for 25 - 50 mm² (17.5 kV) and (25) 35 - 70 mm² (12 kV).

CABLE SETS FOR MASS-IMPREGNATED PAPER CABLES



Transition joints



CHMPR3 Transition joint

from belted cables/H-Type cables to 3-core polymeric cables

Hybrid transition joints CHMPR3 for transition to one 3-core polymeric-insulated cable, are suitable for belted cables and H-Type cables up to 17.5 kV. The scope of application can be reduced by an appropriate padding set for the mass-impregnated paper cable. Suitable for compression connectors.

Dimensions



Characteristics

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

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level

- U0/U (Um) 6/10 (12) kV - 8.7/15 (17.5) kV

Test standards

- CENELEC HD 629.2 (DIN VDE 0278, part 629-2)

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			Art.-No.
Type		L mm	min. Ø over core insulation after re- moval 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	
U ₀ /U (U _m) 6/10 (12) kV - 8.7/15 (17.5) kV										
CHM- PR3 17kV	35-50	1400	12.6	35 - 70	25	130	35 - 50	20	110	197618
	70-240	1400	17.3	95 - 240	34	145	70 - 240	34	145	197619 ¹⁾
	240-400	1400	23.1	300 - 400	42	170	240 - 400	42	170	197620

¹⁾ Padding kit PS(G+H) 17/1 (Art.-No.197690) to be used for 25 - 50 mm² (17.5 kV) and (25) 35 - 70 mm² (12 kV).

CABLE SETS FOR MASS-IMPREGNATED PAPER CABLES



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
- Storage conditions/Shelf life**

 - Unlimited shelf life
- Voltage level**

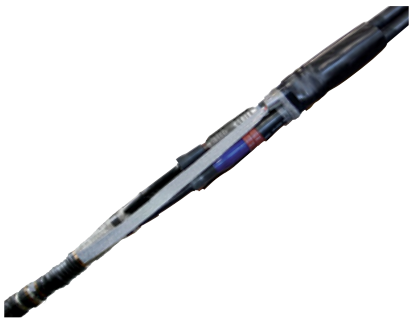
 - U₀/U (U_m) 12/20 (24) kV - 12.7/22 (24) kV
- Test standards**

 - CENELEC HD 629.2 (DIN VDE 0278, part 629-2)

Scope of delivery
Spreader cap, thick wall heat shrinkable outer tube with hot melt adhesive, oil barrier tubing, heat shrinkable tubes, silicone stress control elements, earthing wire, copper braid tape, pressure spring, 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

CABLE SETS FOR MASS-IMPREGNATED PAPER CABLES



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
- Storage conditions/Shelf life**

 - Unlimited shelf life
- Voltage level**

 - U₀/U (U_m) 12/20 (24) kV - 19/33 (36) kV
- Test standards**

 - CENELEC HD 629.2 (DIN VDE 0278, part 629-2)

Scope of delivery
Spreader cap, thick wall heat shrinkable outer tube with hot melt adhesive, oil barrier tubing, heat shrinkable tubes, silicone stress control elements, earthing wire, copper braid tape, pressure spring, 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 re- moval 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		197614
	70-150	1200	23.1	28	145	35 - 50 70 - 150	197616
	150-300	1200	27.3	36	145	150 - 300	197617

¹⁾ Padding kit PS(H) 24/I (Art.-No.197692) to be used for 35 - 70 mm² (24 kV).

CABLE SETS FOR MASS-IMPREGNATED PAPER CABLES



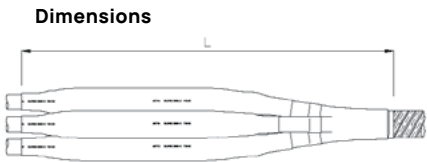
Transition joints



CHMP(3Pb)SV3-1
Transition joint

with screw connectors, for 3 lead sheath cables to three 1-core polymeric cables

Hybrid transition joints CHMP(3Pb)SV3-1 for transition to three 1-core polymeric-insulated cables are suitable for all 3 lead sheath cables for 24 kV. With screw connectors.



Dimensions

Characteristics

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

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level

- $U_0/U (U_m)$ 12/20 (24) kV - 12.7/22 (24) kV

Test standards

- CENELEC HD 629.2 (DIN VDE 0278, part 629-2)

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

CABLE SETS FOR MASS-IMPREGNATED PAPER CABLES



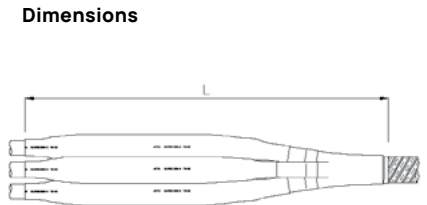
Transition joints



CHMP(3Pb)3-1
Transition joint

for 3 lead sheath cables to three 1-core polymeric cables

Hybrid transition joints CHMP(3Pb)3-1 for transition to three 1-core polymeric-insulated cables are suitable for all 3 lead sheath cables up to 36 kV. The scope of application can be reduced by an appropriate padding set for the mass-impregnated paper cable. Suitable for compression connectors.



Dimensions

Characteristics

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

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level

- $U_0/U (U_m)$ 12/20 (24) kV - 19/33 (36) kV

Test standards

- CENELEC HD 629.2 (DIN VDE 0278, part 629-2)

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 re- moval 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).

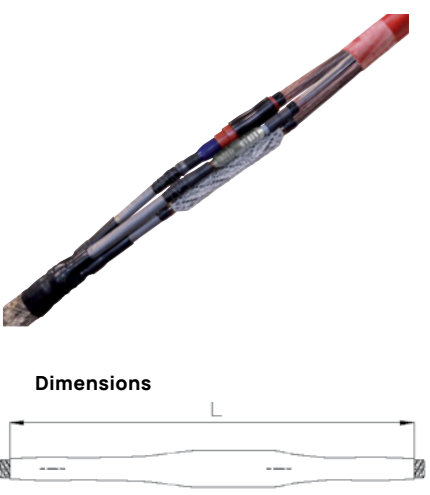
²⁾ Padding kit PS(3Pb+Pb), (Art.-No.197701) to be used for 35 - 50 mm² (36 kV).

³⁾ Padding kit PS(3Pb+Pb), (Art.-No.197702) to be used for 70 - 150 mm² (36 kV).

CABLE SETS FOR MASS-IMPREGNATED PAPER CABLES



Transition joints



CHMP(3Pb)3
Transition joint
for 3 lead sheath cables to 3-core polymeric cables

Hybrid transition joints CHMP(3Pb)3 for transition to one 3-core polymeric-insulated cables are suitable for all 3 lead sheath cables up to 36 kV. The scope of application can be reduced by an appropriate padding set for the mass-impregnated paper cable. Suitable for compression connectors.

- Characteristics**

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

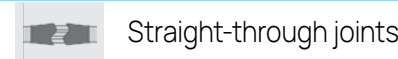
Scope of delivery
Spreader cap, thick wall heat shrinkable outer tube with hot melt adhesive, oil barrier tubing, heat shrinkable tubes, silicone stress control elements, earthing wire, copper braid tape, pressure spring, assembly material, sealing tape, field control filling tape (blue), fire protection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

Optional accessory: Compression connectors (see Connecting technology)

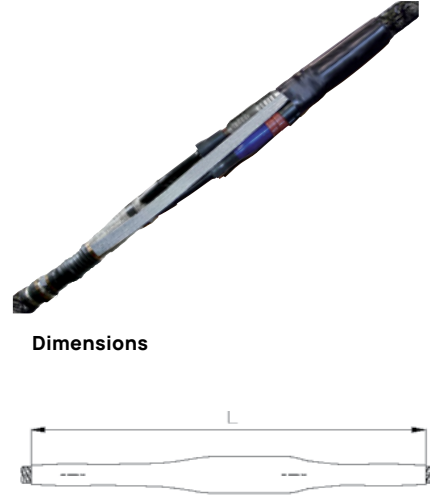
						24 kV	36 kV	
Type	L mm	min. Ø over core insulation after re- moval of the outer conductive layer mm	max. Connector- Ø mm	max. Connector length mm	Nominal cross section mm²	Art.-No.		
U ₀ /U (U _m) 12/20 (24) kV - 12.7/22 (24) kV								
CHMP(3Pb)3 24kV	16-25	1400	12.6	20	100	16 - 25		197641
	35-95	1400	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).

CABLE SETS FOR MASS-IMPREGNATED PAPER CABLES



Straight-through joints



CHMPPR3
Straight-through joint
for belted cables/H-Type cables up to 17.5 kV (MIND)

Hybrid straight-through joints CHMPPR3 are suitable for belted cables and H-Type cables up to 17.5 kV. Suitable for compression connectors.

- Characteristics**

 - Wide cross-section range
 - Quick, safe and easy assembly
 - Ready for immediate operation
- 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**

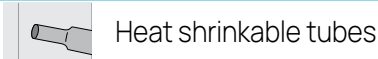
 - Unlimited shelf life

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

HEAT SHRINKABLE COMPONENTS



Heat shrinkable tubes



Colours



Red brown

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

Storage conditions/Shelf life

- Unlimited shelf life
- Free of lead and cadmium
- Silicone free

Application/Suitability

- Allows for clearance reduction between busbars in medium voltage substations up to 36 kV
- Corrosion protection

Material

- Cross-linked polyolefin

Test standards

- Corresponds to IEC 60684-2

Scope of delivery

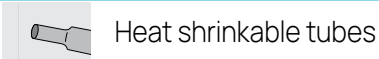
Medium wall heat shrinkable tube, on spool or in lengths

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

Type		L m	Inner-Ø mm		Recovered wall thickness mm	Art.-No.
			before shrinking	after shrinking		
Spool 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

HEAT SHRINKABLE COMPONENTS



Heat shrinkable tubes

→ 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	50 %	
recovered	85 %	IEC 60684-2
Thermal properties		
Operating temperature range	-40 °C up to 100 °C	DIN EN 60684-3-283
Shrinkage temperature	> 125 °C	
Burning behaviour	not self-extinguishing	IEC 60684-2 method C
Flexibility at low temperatures	-40 °C	IEC 60684-2
Electrical properties		
Dielectric strength	20 kV/mm	IEC 60684-2
Specific volume resistivity	10 ¹² Ω x cm	IEC 60684-2
Chemical properties		
Corrosion	None	IEC 60684-2
Resistance to fungus and decay	Rate 1	IEC 60684-2

Type	Recommended application range Busbar types: round shaped Diameter [Ø] mm		Recommended application range Busbar types: rectangular shaped Width [B] + Height [H] mm	
	min.	max.	min.	max.
SRBB	19-6	6.5	12	18
	35-11	13	22	36
	50-18	18	31	60
	80-26	28	55	95
	120-40	45	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



Colours



Red brown

SRAT
Heat shrinkable thick wall tube
halogen-free, shrink ratio 3 : 1

Characteristics

- Thick wall
- Stabilized against UV rays
- Halogen-free
- Non-corrosive
- Infusible
- Highly resistant to electrical breakdown
- Tracking resistance
- High tensile strength
- Free of lead and cadmium
- Silicone free

Storage conditions/Shelf life

- Unlimited shelf life

Application/Suitability

- Insulation tube for conductors in cable terminations of 3.6 to 42 kV
- Corrosion protection

Material

- Cross-linked polyolefin

Test standards

- Corresponds to IEC 60684-2

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

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

Type		L m	Inner-Ø mm		Recovered wall thickness mm	Art.-No.
			before shrinking	after shrinking		
Spool 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	60 %	IEC 60684-2
recovered	85 %	
Thermal properties		
Operating temperature range	-40 °C bis 100 °C	IEC 60684-2
Shrinkage temperature	> 125 °C	IEC 60684-2 method C
Flame propagation	burning time <1 s	
Flexibility at low temperatures	-40 °C	
Thermal ageing (168 h at 150 °C)		IEC 60684-2
Elongation at break	300 %	
Tensile strength at break	11 MPa	
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	350 % 10 MPa	IEC 60684-2
Elongation at break		
Tensile strength at break		
Weather resistance	250 % 9 MPa class 2A 2.5 kV – 1h	IEC 60684-2
Elongation at break		
Tensile strength at break		

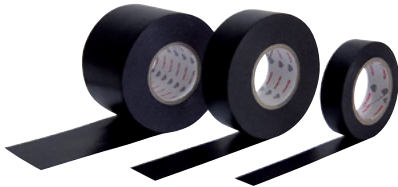
Remarque: Toutes modifications techniques réservées.

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.



Colours

Black

Blue

White

Yellow

Green-Yellow

Brown

Grey

Green

Red

Transparent

Violet

Orange

- Characteristics

 - Synthetic rubber adhesive
 - Very good resistance to abrasion, corrosion and moisture
 - Stabilized against UV rays
 - High flexibility
 - Withstands high electrical stresses
 - Good adhesive properties
 - Easy processing
 - Oil-resistant
 - Resistant to dilute acids and alkalis
- Application/Suitability

 - Sealing
 - Padding of cable insulation
 - Bundling
 - Reinforcing
 - As insulation of electrical and telecommunication cables
 - Colour-coding
- Test standards

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

 - PVC

Scope of delivery
PVC insulation tape

Type	Colours	Length m	Width mm	Thickness mm	Art.-No.
No. 128	Black	10	15	0.15	145821
	Blue	10	15	0.15	145825
	Yellow	10	15	0.15	145826
	Red	10	15	0.15	145827
	White	10	15	0.15	145828
	Green	10	15	0.15	145829
	Violet	10	15	0.15	145830
	Grey	10	15	0.15	145831
	Brown	10	15	0.15	145832
	Orange	10	15	0.15	145822
	Green-Yellow	10	15	0.15	145823
	Transparent	10	15	0.15	145824
	Black	10	19	0.15	145806
	Blue	10	19	0.15	145810
	Yellow	10	19	0.15	145811
	Red	10	19	0.15	145812
	White	10	19	0.15	145813
	Green	10	19	0.15	145814
	Violet	10	19	0.15	145815
	Grey	10	19	0.15	145816
	Brown	10	19	0.15	145817
	Orange	10	19	0.15	145807
	Green-Yellow	10	19	0.15	145808

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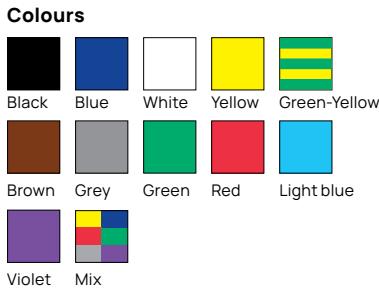
ELECTRICAL INSULATION AND MOUNTING TAPES

→ Continuation

Type	Colours	Length m	Width mm	Thickness mm	Art.-No.
No. 128	Black	25	19	0.15	145794
	Blue	25	19	0.15	145798
	Yellow	25	19	0.15	145799
	Red	25	19	0.15	145800
	White	25	19	0.15	145801
	Green	25	19	0.15	145802
	Violet	25	19	0.15	145803
	Grey	25	19	0.15	145804
	Brown	25	19	0.15	145805
	Orange	25	19	0.15	145795
	Green-Yellow	25	19	0.15	145796
	Transparent	25	19	0.15	145797
	Black	25	25	0.15	145773
	Transparent	25	25	0.15	145775
	Black	25	30	0.15	145784
	Yellow	25	30	0.15	145787
	White	25	30	0.15	145789
	Grey	25	30	0.15	145792
	Black	25	38	0.15	145771
	Black	25	50	0.15	145772

Technical data	Value	Test standard
min. Elongation at break	170 %	IEC 60454-2
Adhesive strength	1,8 N/cm	IEC 60454-2
Tensile strength	30 N/cm	IEC 60454-2
Dielectric strength	40 kV/mm	IEC 60454-2
Temperature index	0 °C - 90 °C	IEC 60454-2
Unwinding force	1.8 N/cm	IEC 60454-2

ELECTRICAL INSULATION AND MOUNTING TAPES



No. 328
PVC insulation tape
for insulation and bundling
Particularly flexible and UV-resistant PVC electrical insulation tape.

- Characteristics**

 - High flexibility, even at minus temperatures
 - Excellent resistance to oil, abrasion, corrosion and moisture
 - Highly resistant to electrical break-down and mechanical protection
 - Good sealing properties
 - Stabilized against UV radiation
 - Good workability even at low temperatures (-18°C to 105°C)
 - Resistant to all weather conditions
 - Self-extinguishing
- Application/Suitability**

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

Test standards

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

Material

 - Soft-PVC

Scope of delivery
PVC insulation tape

Type	Colours	Length m	Width mm	Thickness mm	Art.-No.
No. 328	Black	20	12	0.18	416717
	Black	20	15	0.18	416721
	Black	10	19	0.18	416722
	Black	20	19	0.18	416770
	Blue	20	19	0.18	416771
	Light blue	20	19	0.18	416772
	Yellow	20	19	0.18	416773
	Red	20	19	0.18	416774
	White	20	19	0.18	416775
	Green	20	19	0.18	416776
	Violet	20	19	0.18	416777
	Grey	20	19	0.18	416778
	Brown	20	19	0.18	416779
	Green-Yellow	20	19	0.18	416780
	Mix (Black, Blue, Yellow, Red, White, Green, Violet, Grey, Brown, Green-Yellow)	20	19	0.18	416781
	Black	20	25	0.18	416782
	Black	20	30	0.18	416783
	Black	20	38	0.18	416784
	Grey	20	38	0.18	416785
	Black	20	50	0.18	416786
	Red	20	50	0.18	416787
	White	20	50	0.18	416788
	Grey	20	50	0.18	416789

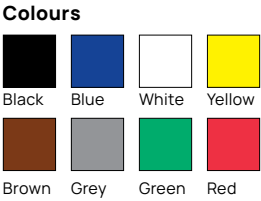
Technical Data	Value	Test standard
Thickness	0.18 mm	IEC 60454-2
Tensile strength at break	35 N/cm	IEC 60454-2
Elongation at break	300 %	IEC 60454-2
Unwinding force	3.5 N/cm	IEC 60454-2
Adhesion to steel	2.0 N/cm	IEC 60454-2
Adhesion to surfaces	2.4 N/cm	IEC 60454-2
Flammability	Self-extinguishing	IEC 60454-2
Dielectric strength	45 kV/mm	IEC 60454-2
Elastic modulus to 35%	3.5 MPa	IEC 60454-2
Temperature index	-18°C to +105°C	IEC 60454-2

ELECTRICAL INSULATION AND MOUNTING TAPES

ELECTRICAL INSULATION AND MOUNTING TAPES



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

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

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

ELECTRICAL INSULATION AND MOUNTING TAPES

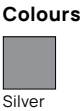


No. 63
Copper braid tape
for shielding and potential control

- 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

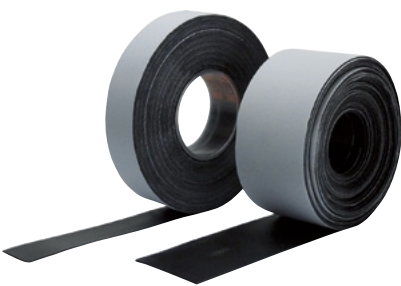
- Material**
- Braided tinned copper wires



Scope of delivery
Copper braid tape

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

ELECTRICAL INSULATION AND MOUNTING TAPES



No. 60, No. 62
High voltage insulation tape
for insulation and padding, self-amalgamating

- Characteristics**
- Self-amalgamating
 - Fuses to form a homogeneous, cavity-free compound within a short period of time
 - Fully removable
 - Durable
 - Ozone-resistant
 - Weatherproof
 - Stabilized against UV rays
 - No electrolytic corrosion
 - Non tacky
 - Extremely ductile
 - Superior electrical properties
 - Excellent adherence to a wide range of substances
 - Superior physical properties
 - Easy processing

- Application/Suitability**
- Conductor insulation for polymeric insulated cables up to 69 kV
 - Padding of cable insulation
 - Sealing of casting moulds
 - Repairing and connection of various insulating and cable materials e.g. PE, XLPE, EPR, PVC, butyl, neoprene

- Material**
- EPR-Base



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.	-40 °C
max.	100 °C

ELECTRICAL INSULATION AND MOUNTING TAPES



Colours

Black

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

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

Technical data	Value
Elongation at break	900 %
Tensile strength at break	3 MPa
Specific volume resistivity	10 Ω x cm
Temperature range	-40 °C up to 100 °C

ELECTRICAL INSULATION AND MOUNTING TAPES



Colours

Black

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

Formular for number of tape layers and bundling distances

Maximum distance between 2 bundlings $L_{max} = 280 \times \frac{d^2}{I}$

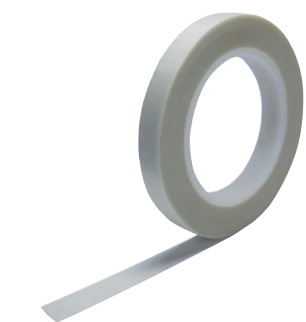
Layers of tape n for chosen L_{max} : $n = \frac{I^2 \times L_{max}}{5700 \times d \times b} + 1$

I = Short circuit 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

ELECTRICAL INSULATION AND MOUNTING TAPES



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
 - Inscrutable
 - 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**

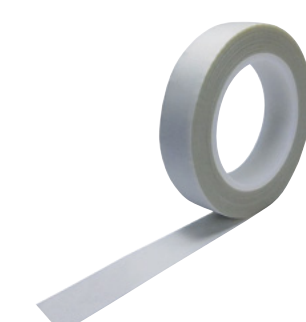
 - Fibreglass reinforcement

Scope of delivery
Fibreglass tape

Type	Colours	Length m	Width mm	Thickness mm	Art.-No.
Premio 1130	White	33	12	0.17	223585
	White	33	19	0.17	223583

Technical data	Value
min. Elongation at break	8 %
Adhesive strength	3.8 N/cm
Insulation resistance	1.5 x 10 ³ MΩ
Dielectric strength	12.7 kV/mm
max. Long-term heat resistance	130 °C

ELECTRICAL INSULATION AND MOUNTING TAPES



Premio 1180
Fibreglass tape 180 °C
for heat-proof electrical and mechanical insulation

Self-adhesive fibreglass tape coated with heat-hardening silicone adhesive, temperature-resistant up to 180 °C.

- Characteristics**

 - Particularly high temperature resistance
 - Excellent mechanical strength
 - Very good form adaptability
 - Good solvent and paint resistance
 - Extreme tear resistance
 - Inscrutable
 - 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**

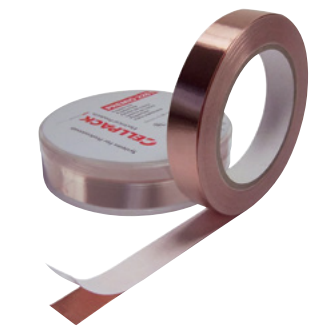
 - Fibreglass reinforcement

Scope of delivery
Fibreglass tape

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

ELECTRICAL INSULATION AND MOUNTING TAPES



Colours
Copper

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

Type	Colours	Length m	Width mm	Thickness mm	Art.-No.
Premio 2281	Copper	33	9	0.06	223578
	Copper	33	12	0.06	223577
	Copper	33	19	0.06	223576

Technical data	Value
Adhesive strength	4.5 N/cm
Tensile strength	40 N/cm
Heat resistance	-20 °C - 150 °C

ELECTRICAL INSULATION AND MOUNTING TAPES



Colours
White

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

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

ADDITIONAL TAPES



Colours



Black

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

Type	Colours	Length m	Width mm	Thickness mm	Art.-No.
HKB	Black	3	20	3	127651

Technical data	Value
Service temperature	-40 °C - 80 °C
Short-term (up to 1 hour)	200 °C

ADDITIONAL TAPES



Colours



Withe



Withe



Red / Withe

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.

Type	Colours	Imprint	Length m	Width mm	Thickness mm	Art.-No.
No. 26	Red/White	without imprint	500	80	0.08	125583
	Yellow	Achtung Starkstromkabel*	250	40	0.15	145865
	Yellow	Achtung Straßenbeleuchtung*	250	40	0.15	145867
	Yellow	Achtung Kabel*	250	40	0.15	145862
	Yellow	Achtung LWL-Kabel*	250	40	0.15	469008
	Yellow	Achtung Fernmeldekabel*	250	40	0.15	145864
	Yellow	Achtung Gasleitungen	250	100	0.10	125628
		Attention conduites de gaz				
		Attenzione condotte di gas				
		Danger - Gas pipes				
		Opgelet - Gasleiding				
	White	Varning Gasledning	250	100	0.10	125626
		Achtung - Kabel - Gefahr				
		Attention - câble - danger				
		Attenzione - cavo - pericolo				
		Attention - Cable - Danger				
	White	Opgelet - Kabel - Gevaar	250	100	0.10	125629
		Varning Elkabel				
		Achtung Wasserleitungen				
		Attention Conduites d'eau				
		Attenzione Condotte d'acqua				
	White	Danger - Water Pipes	250	100	0.10	125627
		Opgelet - Waterleiding				
		Varning Vattenledning				
		Achtung TV Kabel				
		Attention TV Cable				

*The imprint on the tape is written in german.

ADDITIONAL TAPES



Colours

Black

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

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 ¹⁵ Ω/cm	ASTM D 257
Dielectric strength	42 kV/mm	ASTM D 149
Heat resistance	-40 °C - 90 °C	

ADDITIONAL TAPES



KRS
Repair kit
for repairing damaged cable sheaths, incl. accessories

- Characteristics**
- Kit content defined by the praxis

Note

- See the repair tape „No. 72“ for further information on product properties and technical data

- Application/Suitability**
- Repair of damaged cable sheaths

Note

- The use of a repair joint, such as MZ cast resin straight-through joint, is mandatory in case of damage extending beyond the cable sheath to the core insulation, screen or armour.

Scope of delivery
Repair tape No. 72, cleaning tissue, emery cloth, assembly instructions

Type		Art.-No.
KRS	1	145911



HB

Hot melt adhesive
for sealing against humidity

Characteristics

- Fusible
- Supplied as tape
- Halogen-free

Application/Suitability

- Waterproof sealing for heat shrinkable products

Colours



Transparent

Scope of delivery
Hot melt adhesive

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

NOTES



Explore our full product range

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

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