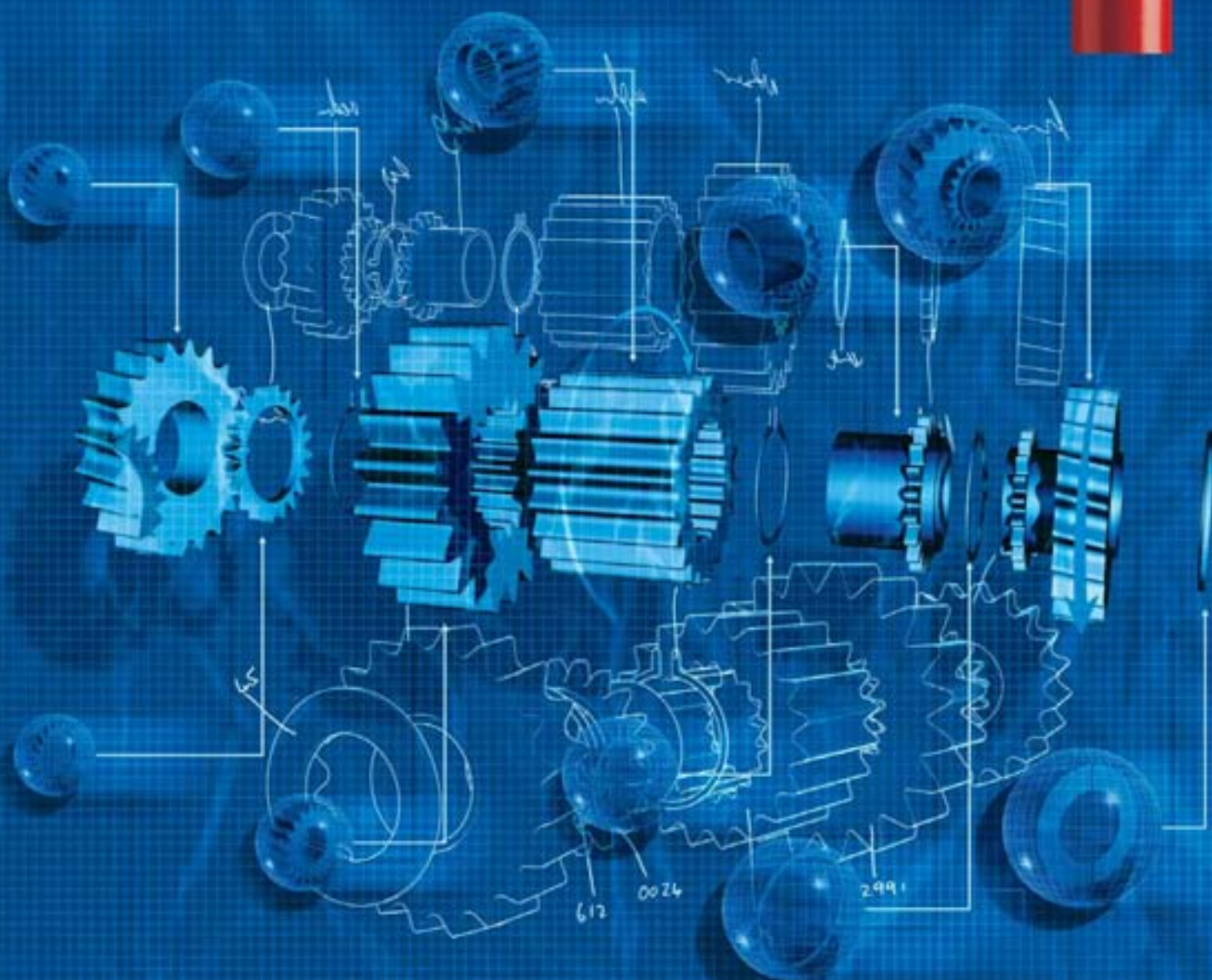


***A SAFE CONNECTION.
GUARANTEED!***





WEITKOWITZ ELEKTRO GMBH

CABLE LUGS + TOOLS



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Germany

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Global Certification Network

CERTIFICATE

ISO 9001:2000



Global Certification Network Association
hereby certifies that the company

WEITKOWITZ ELEKTRO GMBH



business field:

Development, production and sales of cable lugs,
cable connectors, end sleeves, pressing tools and
systems solutions for electrical connection and earthing technology

location:

Woltorfer Straße 125 * D-31224 Peine

has successfully implemented the above mentioned quality management system according to the standard (12/2000) and applies it effectively. The conformity was inspected during the certification audit documented in audit report no. A0605404. This certificate is only valid in connection with the successful performance of the surveillance audits.

Date of the first certification: 17.02.1998
This certificate is valid until: 24.10.2009
Last audit day: 12.10.2006

Date of the last recertification: 25.10.2006
Certificate registration no.: G-50298143/3

DEKRA Certification GmbH
Stuttgart, 25.10.2006



This certification is subject to the listed company maintaining its system to the required standards as evidenced by a current ISO 9000-series registration within the Global Certification Network. This certificate remains the sole property of the issuing registrar, and must be returned upon request.



Index

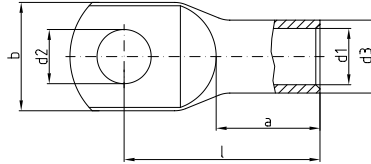
	Seite
Tubular cable lugs , copper, standard-series	5 - 13
Tubular connectors, copper, standard-series	14 - 15
Assortment box, standard-series	16
Tubular cable lugs, copper, for finewiring conductors	17 - 21
Tubular connectors, copper, for finewiring conductors	22
Tubular cable lugs, copper, euro-series	23 - 31
Tubular connectors, copper + assortment box, euro-series	32
Tubular compression cable lugs, copper, DIN 46235	33 - 37
Tubular compression cable lugs, <u>1- and 2-conductor-version with 2 holes</u> + compression bolts, copper	38
Tubular compression connectors, copper, DIN 46267 part 1 + assortment box	39
Tubular compression connectors, copper, with oil-stop , measurements similar to DIN 46267 part 1 + compression tab-connectors, copper, H-shape	40
Tubular compression cable lugs and connectors DIN 46267 part 2, aluminium	41 - 43
Bi-metallic washers, aluminium / copper	43
Bi-metallic compression cable lugs and connectors, aluminium / copper	44 - 45
Special connections	46
Tubular cable lugs and connectors, high grade nickel	47 - 48
<u>Noninsulated</u> terminals, ring-type DIN 46234 and fork type	49 - 53
<u>Noninsulated</u> pin-terminals, DIN 46230	54
<u>Noninsulated</u> parallel- and butt-connectors DIN 46341 part 1	55
Assortment boxes with <u>noninsulated</u> terminals	56
<u>Insulated</u> terminals ring-type DIN 46237 and fork-type	57 - 61
<u>Insulated</u> pin-terminals DIN 46231 and butt-connectors	62
<u>Insulated</u> parallel-, heat-shrinkable- and closed-end-connectors	63
<u>Insulated</u> male and female disconnectors	64 - 66
<u>Insulated</u> receptacle disconnectors and bullet disconnectors	66 - 67
<u>Noninsulated</u> male and female open barrel terminals	68 - 70
<u>Insulated</u> housings for noninsulated female open barrel terminals	69
Male tabs, fully <u>insulated</u>	71
Assortment boxes	72 - 73
Our service for trading	74
<u>Noninsulated</u> cord-end-sleeves DIN 46228 part 1	75 - 77
<u>Insulated</u> cord-end-sleeves DIN 46228 part 4 and others	78 - 80
Dispenser boxes with cord-end-sleeves	81
Assortment boxes with cord-end-sleeves	82 - 83
<u>Insulated</u> cord-end-sleeves, chain-form	84
Cable ties, natural and black colour	85 - 87
Cable ties with steel clip , natural und black colour	88
Cable ties, heat stabilized and cable ties out of stainless steel	89
Cable tie mounts and clips	90
Heat shrinkable tubings	91 - 92
Hand operated tools and pneumatical/electrical driven crimping-machines	93 - 104
Wire strippers and mechanical cable cutters	105 - 110
Mechanical crimping tools	111 - 125
Internet presence www.weitkowitz.de	126
Hydraulic crimping and cutting tools	127 - 141
Special tools	142
Hydraulic punching, bending and cutting tools for bus bars	143 - 150
Safety tools in accordance with VDE, 1000-volts version and GS-sign	151 - 153
Technical appendix	154 - 165
Numerical Index	166 - 175
Checklist for customized cable lugs and connectors	176 - 177
Customized products made from copper or aluminium tube, earthing-terminals	178

Tubular cable lugs, copper
Tubular connectors, copper
Tubular T-connectors, copper
standard-series

Tubular cable lugs 0.5 - 6 mm², standard-series

Material: Cu-ETP according to DIN EN 13600

Surface: tin plated

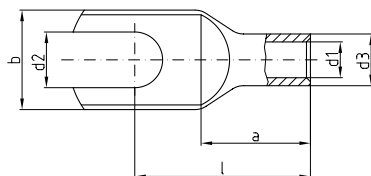


cross section mm ²	flat hole diameter M	art.-no.	dimensions in mm						weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
			d ₁	d ₃	d ₂	b	l	a			
0.5 – 0.75	3	13000	1.4	3	3.2	6.5	12.5	6.0	0.071	100	WZ 17 page 96
	4	13001			4.3	8.5	14		0.074	100	
	5	13002			5.3	10	15		0.082	100	
1.0 – 1.5	3	13005	1.9	3.9	3.2	6.5	14	6.0	0.127	100	
	4	13006			4.3	8.5	15		0.134	100	
	5	13007			5.3	10	16		0.145	100	
	6	13008			6.4	11	18		0.169	100	
2.5	4	13010	2.4	4.4	4.3	8.5	15	6.5	0.157	100	WZ 18 page 96
	5	13011			5.3	10	16		0.197	100	
	6	13012			6.4	11	18		0.192	100	
	8	13013			8.4	13	20		0.228	100	
4	4	13015	3	5	4.3	8.5	17	8	0.201	100	
	5	13016			5.3	10	18		0.214	100	
	6	13017			6.4	11	20		0.237	100	
	8	13018			8.4	14	22		0.298	100	
6	4	13020	3.7	5.5	4.3	8.5	17.5	8	0.224	100	PW 6/50 p.112 DP 6/95 p. 112
	5	13021			5.3	10	19		0.258	100	
	6	13022			6.4	11	21		0.279	100	
	8	13023			8.4	14	23		0.302	100	
	10	13024			10.5	15	25.5		0.327	100	

Tubular cable lugs, fork type, 0.5 - 16 mm², standard-series

Material: Cu-ETP (0.5 – 6 mm²) resp. Cu-HCP (from 10 mm² on) according to DIN EN 13600

Surface: tin plated

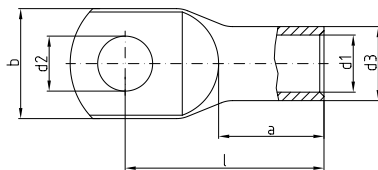


cross section mm ²	flat hole diameter M	art.-no.	dimensions in mm						weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
			d ₁	d ₃	d ₂	b	l	a			
0.5 – 0.75	3	13050	1.4	3	3.2	6.5	12.5	6.0	0.065	100	WZ 17 page 96 WZ 18 page 96 DP 6/95 page 112, PW 6/50 page 112
	4	13051			4.3	8.5	14		0.070	100	
	5	13052			5.3	10	15		0.075	100	
1.0 – 1.5	3	13055	1.9	3.9	3.5	6.5	13.5	6.0	0.107	100	
	4	13056			4.3	8.5	15		0.117	100	
	5	13057			5.3	10	16		0.141	100	
	6	13058			6.4	11	18		0.139	100	
2.5	4	13060	2.4	4.4	4.3	8.5	15	6.5	0.148	100	
	5	13061			5.3	10	16		0.155	100	
	6	13062			6.4	11	18		0.163	100	
	8	13063			8.4	13	20		0.191	100	
4	4	13065	3	5	4.3	8.5	17	8	0.181	100	
	5	13066			5.3	10	18		0.206	100	
	6	13067			6.4	11	20		0.216	100	
	8	13068			8.4	14	22		0.231	100	
6	4	13070	3.7	5.5	4.3	8.5	17.5	8	0.207	100	
	5	13071			5.3	10	19		0.225	100	
	6	13072			6.4	11	21		0.249	100	
	8	13073			8.4	14	23		0.258	100	
10	5	13076	4.3	6.7	5.3	10	20.5	10	0.400	100	
	6	13077			6.4	11	22.5		0.417	100	
	8	13078			8.4	15	25		0.457	100	
16	5	13081	5.4	7.8	5.3	12	22.5	11	0.525	100	
	6	13082			6.4	12	24.5		0.556	100	
	8	13083			8.4	15	26.5		0.615	100	
16 f	5	13086	6	9	5.3	14	25.5	13	0.824	100	FW 10/70 p. 114
	6	13087			6.4	14	27		0.860	100	
	8	13088			8.4	15	29.5		0.937	100	

Tubular cable lugs 10 – 70 mm², standard-series

Material: Cu-HCP according to DIN EN 13600

Surface: tin plated – Type: without inspection hole or optional with inspection hole

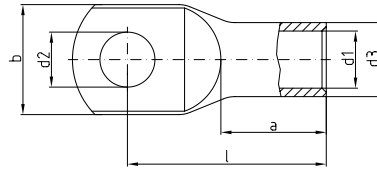


cross section mm ²	flat hole diameter M	without inspection hole art.-no.	dimensions in mm	weight 100 pcs. approx. kg	packing unit pcs.	with inspection hole art.-no.	tool recommendation
			d ₁ d ₃ d ₂ b l a				
10	4	13204	4.3 6.7 4.3 10 19.5 10	0.41	100	13704	WZ 18 page 96 MP 13 page 116, PW 6/50 page 112 AP 10 + HP 10 p. 128, AP 20 + HP 20 p. 131, AP 30 + HP 30 p. 134, HPW 17 p. 135 PW 6/70 p. 113, DP 6/95 p. 112, PW 10/120 p. 115, MP 1 p. 118, MP 2 p. 121, MHP 10/400 p. 124
	5	13205	5.3 10 20.5	0.43	100	13705	
	6	13206	6.4 11 22.5	0.47	100	13706	
	8	13207	8.4 15 25	0.52	100	13707	
	10	13208	10.5 18 27.5	0.59	100	13708	
	12	13209	13 19 28.5	0.55	100	13709	
16	5	13210	5.4 7.8 5.3 12 22.5 11	0.57	100	13710	
	6	13211	6.4 12 24.5	0.64	100	13711	
	8	13212	8.4 15 26.5	0.69	100	13712	
	10	13213	10.5 18 29	0.78	100	13713	
	12	13214	13 20 30	0.72	100	13714	
25	5	13296	6,9 9,4 5,3 14 25 13	0,87	100	13796	
	6	13215	6,4 14 27	0,94	100	13715	
	8	13216	8,4 15 29	1,01	100	13716	
	10	13217	10,5 18 32	1,07	100	13717	
	12	13218	13 20 33,5	1,08	100	13718	
	14	13219	15 22 36	1,16	100	13719	
35	5	13298	8,3 11,3 5,3 16,5 31,5 16	1,61	100	13798	
	6	13220	6,4 16,5 32,5	1,60	100	13720	
	8	13221	8,4 16,5 33	1,62	100	13721	
	10	13222	10,5 18 35,5	1,79	100	13722	
	12	13223	13 20 36,5	1,70	100	13723	
	14	13224	15 22 39	1,87	100	13724	
	16	13292	17 26 41,5	1,97	100	13792	
50	6	13281	9,6 13,1 6,4 19 36 18	2,35	100	13781	
	8	13225	8,4 19 37	2,41	100	13725	
	10	13226	10,5 20 39	2,53	100	13726	
	12	13227	13 23 40,5	2,61	100	13727	
	14	13282	15 25 42,5	2,79	100	13782	
	16	13228	17 27 45,5	2,94	100	13728	
	20	13297	21 28 50	3,07	100	13797	
70	6	13229	11,5 15,3 6,4 22,5 41 21	3,46	100	13729	
	8	13230	8,4 22,5 41	3,46	100	13730	
	10	13231	10,5 22,5 42,5	3,53	100	13731	
	12	13232	13 23 43,5	3,64	100	13732	
	14	13283	15 26 46	3,93	100	13783	
	16	13233	17 28 48,5	4,02	100	13733	
	20	13234	21 29 53	4,21	100	13734	

Tubular cable lugs 95 – 630 mm², standard series

Material: Cu-HCP according to DIN EN 13600

Surface: tin plated – Type: without inspection hole or optional with inspection hole

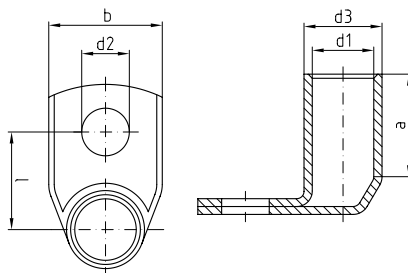


cross section mm ²	flat hole diameter M	without inspection hole art.-no.	dimensions in mm	weight 100 pcs. approx. kg	packing unit pcs.	with inspection hole art.-no.	tool recommendation
			d ₁ d ₃ d ₂ b l a				
95	6	13299	13.5 17.5 6.4 25 46 23	4.71	50	13799	PW 10/120 page 115 MP 2 page 121, AP 10 + HP 10 page 128 MHP 10/400 page 124, HPW 17 page 135, AP 30 + HP 30 page 134 DP 6/95 p. 112 HPW 18 page 144
	8	13235	8.4 25 45.5	4.85	50	13735	
	10	13236	10.5 25 47	5.00	50	13736	
	12	13237	13 26 47	4.91	50	13737	
	14	13284	15 26 49	5.16	50	13784	
	16	13238	17 28 50	5.15	50	13738	
	20	13239	21 31 54.5	5.66	50	13739	
120	8	13285	15.5 20 8.4 29 50.5 26	7.54	50	13785	
	10	13240	10.5 29 53	7.50	50	13740	
	12	13241	13 29 52.5	7.39	50	13741	
	14	13286	15 29 53.5	7.28	50	13786	
	16	13242	17 29 55	7.52	50	13742	
	20	13243	21 35 60	8.02	50	13743	
150	10	13245	16.8 21.3 10.5 31 56.5 29	8.07	50	13745	
	12	13246	13 31 56	8.19	50	13746	
	14	13287	15 31 57	8.33	50	13787	
	16	13247	17 31 58	8.14	50	13747	
	20	13248	21 35 63	8.43	50	13748	
185	10	13249	19 24 10.5 35 59 30	10.92	25	13749	
	12	13250	13 35 58.5	10.79	25	13750	
	14	13288	15 35 61	10.72	25	13788	
	16	13251	17 35 63	11.11	25	13751	
	20	13252	21 35 66	11.96	25	13752	
240	10	13254	21 26 10.5 38 67 35	13.59	25	13754	
	12	13255	13 38 67	12.80	25	13755	
	14	13289	15 38 69	13.96	25	13789	
	16	13256	17 38 69.5	13.84	25	13756	
	20	13257	21 38 71	13.95	25	13757	
300	10	13259	24 30 10.5 44 79.5 42	21.20	20	13759	
	12	13260	13 44 89	21.72	20	13760	
	14	13290	15 44 84	22.47	20	13790	
	16	13261	17 44 85	21.94	20	13761	
	20	13262	21 44 85	22.92	20	13762	
400	10	13263	27.5 33.5 10.5 49 92 47	27.90	15		
	12	13264	13 49 92	29.80	15		
	16	13265	17 49 92	27.90	15		
	20	13266	21 49 92	28.19	15		
500	16	13270	31 38 17 55.5 113 70	49.38	5		
	20	13271	21 55.5 113	48.56	5		
630	16	13275	34 41 17 60 115 70	52.28	5		
	20	13276	21 60 115	51.96	5		

Tubular cable lugs with 90° angle, 0.5 – 16 mm², standard-series

Material: Cu-ETP (0.5 – 6 mm²) resp. Cu-HCP (from 10 mm² on) according to DIN EN 13600

Surface: tin plated – Type: without inspection hole or optional with inspection hole



cross section mm ²	flat hole diameter M	without inspection hole art.-no.	dimensions in mm							weight 100 pcs. approx. kg	packing unit pcs.	with in- spection hole art.-no.	tool recommendation
0.5 – 0.75	3	13100	1.4	3	3.2	6.5	7.5	5	0.082	100	–		
	4	13101			4.3	8.5	8.5		0.084	100	–		
	5	13102			5.3	10	9.5		0.092	100	–		
1.0 – 1.5	3	13105	1.9	3.9	3.2	6.5	8	5	0.146	100	–		
	4	13106			4.3	8.5	11		0.154	100	–		
	5	13107			5.3	10	10		0.152	100	–		
	6	13108			6.4	11	12		0.153	100	–		
2.5	4	13110	2.4	4.4	4.3	8.5	9.2	5.5	0.183	100	–		
	5	13111			5.3	10	10.2		0.184	100	–		
	6	13112			6.4	11	12.2		0.204	100	–		
	8	13113			8.4	14	14.2		0.227	100	–		
4	4	13115	3	5	4.3	8.5	9.5	7	0.228	100	–		
	5	13116			5.3	10	10.5		0.241	100	–		
	6	13117			6.4	11	12.5		0.285	100	–		
	8	13118			8.4	14	14.5		0.297	100	–		
6	4	13120	3.7	5.5	4.3	8.5	9.8	7	0.270	100	–		
	5	13121			5.3	10	10.8		0.252	100	–		
	6	13122			6.4	11	12.8		0.282	100	–		
	8	13123			8.4	14	14.8		0.287	100	–		
10	5	13305	4.3	6.7	5.3	10	11.4	10	0.484	100		13805	
	6	13306			6.4	11	13.4		0.540	100		13806	
	8	13307			8.4	15	15.4		0.535	100		13807	
	10	13308			10.5	18	17.4		0.573	100		13808	
	12	13309			13	20	18.4		0.561	100		13809	
16	5	13310	5.4	7.8	5.3	11	11.9	10	0.655	100		13810	
	6	13311			6.4	11.3	13.9		0.696	100		13811	
	8	13312			8.4	15	15.9		0.759	100		13812	
	10	13313			10.5	18	17.9		0.832	100		13813	
	12	13314			13	20	18.9		0.778	100		13814	

WZ 17 page 96

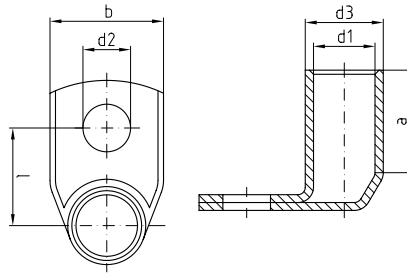
WZ 18 page 96

PW 6/70 page 113

Tubular cable lugs with 90° angle, 25 – 300 mm², standard-series

Material: Cu-HCP according to DIN EN 13600

Surface: tin plated – Type: without inspection hole or optional with inspection hole

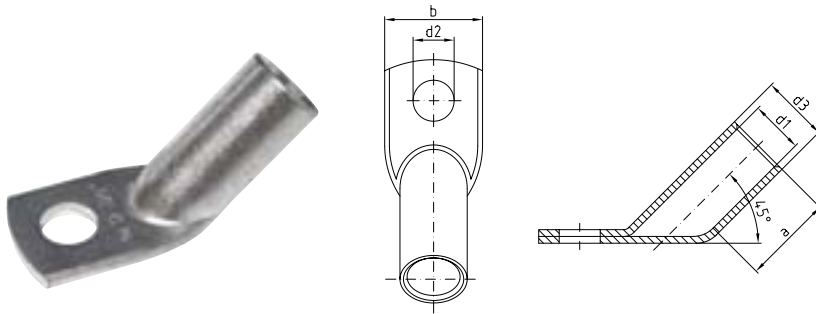


cross section mm ²	flat hole diameter M	without inspection hole art.-no.	dimensions in mm	weight 100 pcs. approx. kg	packing unit pcs.	with in- spection hole art.-no.	tool recommendation
			d ₁ d ₃ d ₂ b l a				
25	6	13315	6.9 9.4 6.4 14 14.7 12	1.127	100	13815	PW 6/70 page 113 PW 10/120 page 115 MP 2 page 121, AP 10 + HP 10 page 128, AP 20 + HP 20 page 131, HPW 15 page 135 MHP 10/400 page 124, AP 30 + HP 30 page 134, HPW 17 page 135
	8	13316	8.4 15 16.7	1.215	100	13816	
	10	13317	10.5 18 18.7	1.184	100	13817	
	12	13318	13 20 19.7	1.176	100	13818	
35	6	13320	8.3 11.3 6.4 16.5 16.2 15	1.764	100	13820	
	8	13321	8.4 16.5 18.2	1.726	100	13821	
	10	13322	10.5 18 20.2	1.928	100	13822	
	12	13323	13 20 21.2	1.879	100	13823	
50	6	13381	9.6 13.1 6.4 19 17.1 17	2.628	100	13881	
	8	13325	8.4 19 19.1	2.802	100	13825	
	10	13326	10.5 20 21.1	2.893	100	13826	
	12	13327	13 23 23.5	2.869	100	13827	
	16	13328	17 28 25.1	2.940	100	13828	
70	8	13330	11.5 15.3 8.4 22 20.2 20	3.656	50	13830	
	10	13331	10.5 22 22.2	3.838	50	13831	
	12	13332	13 23 23.2	3.742	50	13832	
	16	13333	17 28 26.2	3.946	50	13833	
95	8	13335	13.5 17.5 8.4 25 21.3 22	4.869	50	13835	
	10	13336	10.5 25 23.3	5.174	50	13836	
	12	13337	13 25 24.3	5.250	50	13837	
	16	13338	17 28 27.3	5.338	50	13838	
120	10	13340	15.5 20 10.5 29 25 25	7.400	50	13840	
	12	13341	13 29 26	7.325	50	13841	
	16	13342	17 29 28.5	7.735	50	13842	
150	10	13345	16.8 21.3 10.5 31 25.7 28	8.070	50	13845	
	12	13346	13 31 26.7	8.160	50	13846	
	16	13347	17 31 29.7	8.410	50	13847	
	20	13348	21 35 33.7	8.765	50	13848	
185	10	13349	19 24 10.5 35 27 29	10.290	25	13849	
	12	13350	13 35 28	10.378	25	13850	
	16	13351	17 35 31	10.825	25	13851	
	20	13352	21 35 35	11.695	25	13852	
240	12	13355	21 26 13 38 29 34	12.685	25	13855	
	16	13356	17 38 32	13.455	25	13856	
	20	13357	21 38 36	14.015	25	13857	
300	12	13360	24 30 13 43 31 41	18.880	20	13860	
	16	13361	17 43 34	21.870	20	13861	
	20	13362	21 43 38	22.470	20	13862	

Tubular cable lugs with 45° angle, 10 – 70 mm², standard series

Material: Cu-HCP according to DIN EN 13600

Surface: tin plated

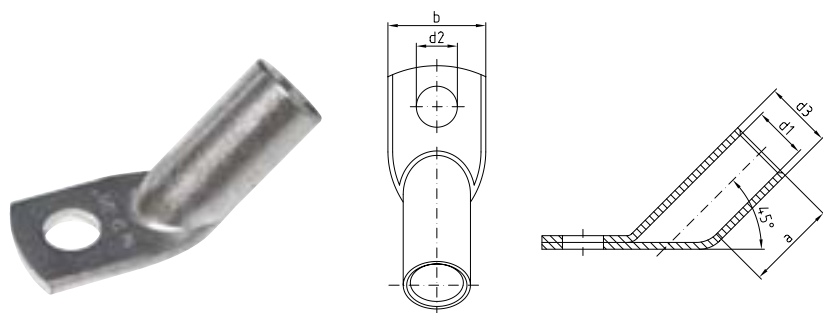


cross section mm ²	flat hole diameter M	art.-no.	dimensions in mm					weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
			d ₁	d ₃	d ₂	b	a			
10	5	13134	4.3	6.7	5.3	10	10	0.532	100	AP 20 + HP 20 page 131, AP 30 + HP 30 page 134, HPW 17 page 135 PW 10/120 page 115, MP 1 page 118, AP 10 + HP 10 page 128 PW 6/70 page 113, DP 6/95 page 112
	6	13135			6.4	11		0.537	100	
	8	13136			8.4	15		0.588	100	
16	6	13140	5.4	7.8	6.4	11.3	10	0.687	100	
	8	13141			8.4	15		0.708	100	
	10	13142			10.5	18		0.820	100	
25	6	13145	6.9	9.4	6.4	14	12	1.044	100	
	8	13146			8.4	15		1.130	100	
	10	13147			10.5	18		1.197	100	
	12	13148			13	20		1.217	100	
35	6	13150	8.3	11.3	6.4	16.5	15	1.809	50	
	8	13151			8.4	16.5		1.875	50	
	10	13152			10.5	18		1.951	50	
	12	13153			13	20		1.930	50	
50	6	13154	9.6	13.1	6.4	19	17	2.500	50	
	8	13155			8.4	19		2.850	50	
	10	13156			10.5	20		3.270	50	
	12	13157			13	23		3.414	50	
70	6	13159	11.5	15.3	6.4	22	20	3.820	25	
	8	13160			8.4	22		4.024	25	
	10	13161			10.5	22		4.296	25	
	12	13162			13	23		4.248	25	

Tubular cable lugs with 45°angle, 95 – 240 mm², standard series

Material: Cu-HCP according to DIN EN 13600

Surface: tin plated

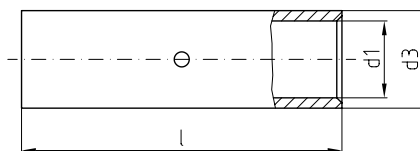


cross section mm ²	flat hole diameter M	art.-no.	dimensions in mm					weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation	
			d ₁	d ₃	d ₂	b	a				
95	8	13165	13.5	17.5	8.4	25	22	5.380	25	DP 6/95 p. 112	PW 10/120 page 115
	10	13166			10.5	25		5.608	25		
	12	13167			13	25		5.740	25		
120	8	13169	15.5	20	8.4	29	25	7.650	25		
	10	13170			10.5	29		8.325	25		
	12	13171			13	29		8.150	25		
	16	13172			17	29		8.592	25		
150	10	13174	16.8	21.3	10.5	31	28	9.865	25		
	12	13175			13	31		9.865	25		
	16	13176			17	31		9.816	25		
185	10	13178	19	24	10.5	35	29	12.900	20		
	12	13179			13	35		12.290	20		
	16	13180			17	35		11.960	20		
	20	13181			21	35		14.578	20		
240	10	13182	21	26	10.5	38	34	15.120	15		
	12	13183			13	38		15.580	15		
	16	13184			17	38		16.510	15		
	20	13185			21	38		17.040	15		

Tubular butt-connectors 0.5 – 630 mm², standard series

Material: Cu-ETP (0.5 – 6 mm²) resp. Cu-HCP (from 10 mm² on) according to DIN EN 13600

Surface: tin plated – Type: with wirestop or without wirestop



cross section mm ²	with wirestop art.-no.	dimensions in mm			weight 100 pcs. approx. kg	packing unit pcs.	without wirestop art.-no.	tool recommendation
d ₁	d ₃	l						
0.5 – 0.75	13450	1.4	3	14	0.067	100	13554	
1.0 – 1.5	13452	1.9	3.9	14	0.108	100	13555	
2.5	13454	2.4	4.4	16	0.145	100	13556	
4	13456	3	5	19	0.198	100	13557	
6	13458	3.7	5.5	19	0.220	100	13558	
10	13460	4.3	6.7	30	0.552	100	13560	
16	13462	5.4	7.8	35	0.800	100	13561	
25	13464	6.9	9.4	40	1.160	100	13562	
35	13466	8.3	11.3	45	1.912	100	13563	
50	13468	9.6	13.1	50	2.815	100	13564	
70	13470	11.5	15.3	55	4.146	50	13566	
95	13472	13.5	17.5	60	5.297	50	13567	
120	13474	15.5	20	65	7.470	50	13568	
150	13476	16.8	21.3	70	8.650	50	13569	
185	13478	19	24	80	11.625	25	13570	
240	13480	21	26	90	14.790	25	13572	
300	13482	24	30	100	22.400	10	13573	
400	13484	27.5	33.5	100	26.170	10	13574	
500	13486	31	38	140	49.680	5	13575	
630	13488	34	41	160	61.750	5	13576	

WZ 17 page 96

WZ 18 page 96

DP 6/95 page 112

PW 6/70 page 113

PW 10/120 page 115

MP 2 page 121, AP 10 + HP 10 page 128

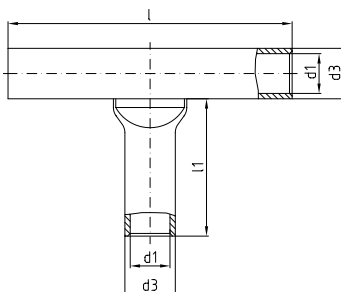
MHP 10/400 p. 124, HPW 17 p. 135, AP 30 + HP 30 p. 134

HPW 18 page 144

Tubular T-connectors 1.0 – 300 mm², standard series

Material: Cu-ETP (1 – 6 mm²) resp. Cu-HCP (from 10 mm² on) according to DIN EN 13600

Surface: tin plated



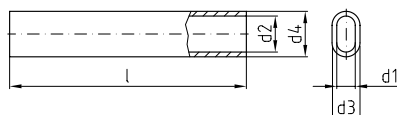
cross section mm ²	art.-no.	dimensions in mm				weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation	
		d ₁	d ₃	l	l ₁				
1.0 – 1.5	13952	1.9	3.9	30	16	0.36	50	WZ 18 p. 96 DP 6/95 page 112 PW 10/120 p. 115 AP 30 + HP 30 page 134	
2.5	13954	2.4	4.4	30	16	0.45	50		
4	13956	3	5	35	16.5	0.57	50		
6	13958	3.7	5.5	35	17	0.66	50		
10	13960	4.3	6.7	45	25	1.34	50		
16	13962	5.4	7.8	50	26	1.66	50		
25	13964	6.9	9.4	50	27	2.20	25		
35	13966	8.3	11.3	60	31	3.82	25		
50	13968	9.6	13.1	72	35	6.13	10		
70	13970	11.5	15.3	77	37	8.39	10		
95	13972	13.5	17.5	88	45	11.82	10		
120	13974	15.5	20	106	53	18.27	10		
150	13976	16.8	21.3	120	58	21.76	5		
185	13978	19	24	110	42	29.11	5		
240	13980	21	26	135	55	38.72	5		
300	13982	24	30	140	55	45.50	3		

Tubular oval-connectors 0.5 – 10 mm²

for connection of solid conductors

Material: Cu-ETP according to DIN EN 13600

Surface: tin plated



cross section mm ²	art.-no.	dimensions in mm					weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
		d ₁	d ₂	d ₃	d ₄	l			
0.5	13410	1.0	2.0	2.0	3.0	25	0.076	100	Best.-Nr. 99901 page 104
1.5	13412	1.6	3.2	2.6	4.2	25	0.109	100	Best.-Nr. 99902 page 104
2.5	13414	2.1	4.2	3.1	5.2	25	0.145	100	Best.-Nr. 99902 page 104
4	13416	2.5	5.0	3.5	6.0	25	0.160	100	Best.-Nr. 99901 page 104
6	13418	3.0	6.0	5.0	8.0	40	0.651	100	MP 13 page 116 MP 1 page 118
10	13420	3.9	7.6	5.9	9.6	50	0.962	50	

Assortment box with tubular cable lugs, standard-series

Material: varnished steel, with 12 small compartments and 1 tool-compartment

Measurements: 405 x 250 x 50 mm



Contents of tubular cable lugs, standard series:

25 pcs.	6 mm ²	M 6	no. 13022	25 pcs.	25 mm ²	M 8	no. 13216
25 pcs.	6 mm ²	M 8	no. 13023	25 pcs.	25 mm ²	M 10	no. 13217
25 pcs.	10 mm ²	M 6	no. 13206	20 pcs.	35 mm ²	M 8	no. 13221
25 pcs.	10 mm ²	M 8	no. 13207	20 pcs.	35 mm ²	M 10	no. 13222
25 pcs.	16 mm ²	M 8	no. 13212	20 pcs.	50 mm ²	M 10	no. 13226
25 pcs.	16 mm ²	M 10	no. 13213	20 pcs.	50 mm ²	M 12	no. 13227

1 pc. crimping tool PW 6/50 no. 90180

art.-no.: 90876

Assortment box without contents

art.-no.: 90877

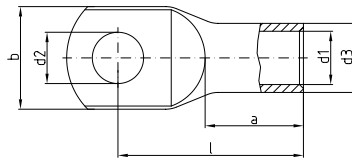
**Special filling
on request!**

Tubular cable lugs for finewiring conductors, copper
Tubular butt-connectors for finewiring conductors, copper

Tubular cable lugs 10 – 150 mm², for finewiring conductors

Material: Cu-HCP according to DIN EN 13600

Surface: tin plated – Type: without inspection hole or optional with inspection hole

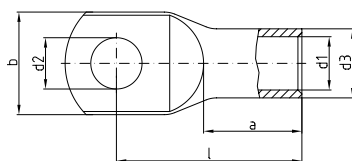


cross section mm ²	flat hole diameter M	without inspection hole art.-no.	dimensions in mm						weight 100 pcs. approx. kg	packing unit pcs.	with in- spection hole art.-no.	tool recommendation
			d ₁	d ₃	d ₂	b	l	a				
10 f	5	13510	5	8	5.3	12	23	12	0.70	100	13610	FW 10/70 page 114 MP 1 page 118 AP 10 + HP 10 page 128, AP 20 + HP 20 page 131, AP 30 + HP 30 page 134, HPW 17 page 135
	6	13511			6.4	12	25		0.76	100	13611	
	8	13512			8.4	15	28		0.84	100	13612	
	10	13513			10.5	18	31		0.94	100	13613	
	12	13514			13	20	32		0.95	100	13614	
16 f	5	13585	6	9	5.3	14	25.5	13	0.94	100	13685	
	6	13515			6.4	14	27		0.97	100	13615	
	8	13516			8.4	15	29.5		1.13	100	13616	
	10	13517			10.5	18	32		1.14	100	13617	
	12	13518			13	20	33		1.19	100	13618	
25 f	6	13520	7.7	10.7	6.4	16	32	16	1.51	100	13620	
	8	13521			8.4	16	34		1.49	100	13621	
	10	13522			10.5	18	35		1.56	100	13622	
	12	13523			13	20	36		1.65	100	13623	
35 f	6	13583	9.2	12.4	6.4	18	36	18	2.07	100	13683	
	8	13525			8.4	18	36		1.94	100	13625	
	10	13526			10.5	18	38		2.14	100	13626	
	12	13527			13	23	40		2.22	100	13627	
	16	13528			17	28	45		2.21	100	13628	
50 f	6	13584	11.2	14.8	6.4	22	42	21	3.25	100	13684	
	8	13530			8.4	22	42		3.18	100	13630	
	10	13531			10.5	22	43		3.31	100	13631	
	12	13532			13	23	44		3.36	100	13632	
	16	13533			17	28	48.5		3.57	100	13633	
70 f	8	13535	13.5	17.5	8.4	25	45.5	23	4.85	50	13635	
	10	13536			10.5	25	47		5.00	50	13636	
	12	13537			13	26	47		4.91	50	13637	
	16	13538			17	28	50		5.15	50	13638	
	20	13539			21	31	54.5		5.66	50	13639	
95 f	10	13540	15.5	20	10.5	29	53	26	7.50	50	13640	
	12	13541			13	29	52.5		7.39	50	13641	
	16	13542			17	29	55		7.52	50	13642	
	20	13543			21	35	60		8.02	50	13643	
120 f	10	13545	16.8	21.3	10.5	31	56.5	29	8.07	50	13645	
	12	13546			13	31	56		8.19	50	13646	
	16	13547			17	31	58		8.14	50	13647	
	20	13548			21	35	63		8.43	50	13648	
150 f	10	13549	19	24	10.5	35	59	30	10.92	25	13649	
	12	13550			13	35	58.5		10.79	25	13650	
	16	13551			17	35	63		11.11	25	13651	
	20	13552			21	35	66		11.96	25	13652	

Tubular cable lugs 185 – 240 mm², for finewiring conductors

Material: Cu-HCP according to DIN EN 13600

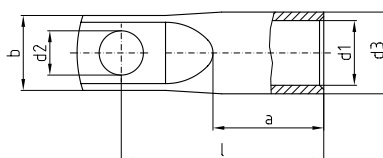
Surface: tin plated – Type: without inspection hole or optional with inspection hole



cross section mm ²	flat hole diameter M	without inspection hole art.-no.	dimensions in mm						weight 100 pcs. approx. kg	packing unit pcs.	with in- spection hole art.-no.	tool recommendation			
			d ₁	d ₃	d ₂	b	l	a							
185 f	10	13589	21	26	10.5	38	67	35	13.59	25	13689	AP/HP 10	AP/HP 20 p. 131	AP/HP 30 p. 134	HPW 17 p. 135
	12	13590			13	38	67		12.80	25	13690				
	16	13592			17	38	69.5		13.84	25	13692				
	20	13593			21	38	71		13.95	25	13693				
240 f	12	13595	24	30	13	44	82	42	21.72	20	13695				
	16	13597			17	44	85		21.94	20	13697				
	20	13598			21	44	85		22.92	20	13698				

Tubular cable lugs 35 – 120 mm² with narrow flange, for finewiring conductors for switchgear connections

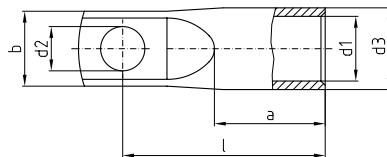
Material: Cu-HCP according to DIN EN 13600, Surface: tin plated



cross section mm ²	flat hole diameter M	art.-no.	dimensions in mm						weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation			
			d ₁	d ₃	d ₂	b	l	a						
35 f	6	18583	9.2	12.4	6.4	15	33.5	18	2.70	100	FW 10/70 page 114	AP 10 + HP 10 page 128	AP 20 + HP 20 page 131	HPW 17 page 135, AP 30 + HP 30 page 134
50 f	6	18584	11.0	14.8	6.4	15	38.5	21	2.69	25				
	8	18530			8.4	17	41		3.18	25				
	10	18531			10.5	19	43		3.31	25				
70 f	6	18599	13.5	17.5	6.4	17	45.5	23	4.22	25				
	8	18535			8.4	17	43.5		4.46	25				
	10	18536			10.5	19	45.5		4.62	25				
	12	18537			13	22	46.5		4.92	25				
95 f	6	18580	14.9	20	6.4	19	47.5	26	5.64	25				
	8	18586			8.4	19	48.5		6.16	25				
	10	18540			10.5	19	51.5		6.29	25				
	12	18541			13	22	54		6.50	25				
120 f	6	18544	16.8	21.3	6.4	19	49	29	6.60	25				
	8	18594			8.4	19	51		7.04	25				
	10	18545			10.5	19	53		7.57	25				
	12	18546			13	22	54		7.86	25				

Tubular cable lugs 150 – 240 mm² with narrow flange, for finewiring conductors for switchgear connections

Material: Cu-HCP according to DIN EN 13600, Surface: tin plated

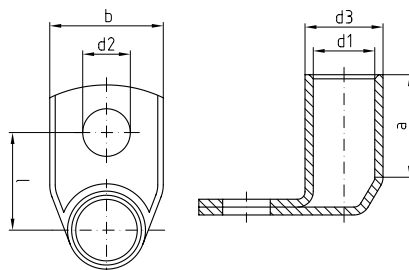


cross section mm ²	flat hole diameter M	art.-no.	dimensions in mm						weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation			
			d ₁	d ₃	d ₂	b	l	a						
150 f	6	18595	18.7	24	6.4	26	54	30	8.95	25	AP 10 + HP 10 p. 128	AP 20 + HP 20 page 131	AP 30 + HP 30 page 134	HPW 17 page 135
	8	18593			8.4	26	56		9.64	25				
	10	18549			10.5	26	58		10.172					
	12	18550			13	26	59		10.31	25				
185 f	10	18554	21	26	10.5	30	64	35	11.42	25				
	12	18555			13	30	64		11.71	25				
	16	18556			17	30	68		11.97	25				
240 f	10	18559	23.5	30	10.5	30	76	42	19.37	25				
	12	18560			13	30	79		19.96	25				
	16	18561			17	30	81		20.33	25				

Tubular cable lugs with 90° angle, 10 – 25 mm², for finewiring conductors

Material: Cu-HCP according to DIN EN 13600

Surface: tin plated

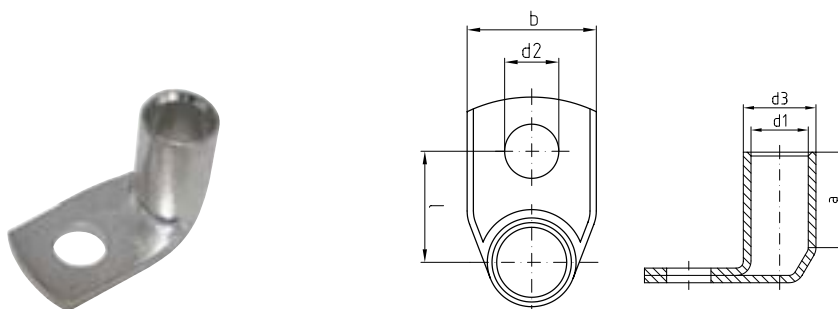


cross section mm ²	flat hole diameter M	art.-no.	dimensions in mm						weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation			
			d ₁	d ₃	d ₂	b	l	a						
10 f	5	11510	5	8	5.3	12	12	11	0.857	100	FW 10/70 page 114	AP 10 + HP 10 page 128, MP 2 p. 121	AP 20 + HP 20 page 131	AP 30 + HP 30 page 134, HPW 17 page 135
	6	11511			6.4	13	14		0.906	100				
	8	11512			8.4	15	16		0.977	100				
	10	11513			10.5	18	18		1.007	100				
	12	11514			13	20	19		1.017	100				
16 f	5	11585	6	9	5.3	15	12.5	12	1.019	100				
	6	11515			6.4	15	14.5		1.093	100				
	8	11516			8.4	15	16.5		1.216	100				
	10	11517			10.5	18	18.5		1.267	100				
	12	11518			13	20	19.5		1.350	100				
25 f	6	11520	7.7	10.7	6.4	16	15.9	15	1.670	100				
	8	11521			8.4	16	17.9		1.758	100				
	10	11522			10.5	18	19.9		1.886	100				
	12	11523			13	20	20.9		1.800	100				

Tubular cable lugs with 90° angle, 35 – 240 mm², for finewiring conductors

Material: Cu-HCP according to DIN EN 13600

Surface: tin plated

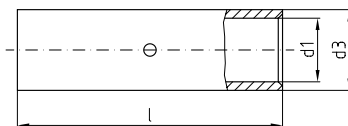


cross section mm ²	flat hole diameter M	art.-no.	dimensions in mm						weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation			
			d ₁	d ₃	d ₂	b	l	a						
35 f	6	11583	9.2	12.4	6.4	18	16.7	17	2.082	100	FW 10/70 page 114	MP 2 page 121, AP 10 + HP 10 page 128	AP 20 + HP 20 page 131	AP 30 + HP 30 page 134, HPW 17 page 135
	8	11525			8.4	18	18.7		2.283	100				
	10	11526			10.5	18	20.7		2.346	100				
	12	11527			13	23	21.7		2.347	100				
	16	11528			17	28	24.7		2.348	100				
50 f	6	11584	11.2	14.8	6.4	22	17.9	20	3.022	100				
	8	11530			8.4	22	19.9		3.298	100				
	10	11531			10.5	22	21.9		3.409	100				
	12	11532			13	23	22.9		3.462	100				
	16	11533			17	28	25.9		3.660	100				
70 f	8	11535	13.5	17.5	8.4	25	21.3	22	4.869	50				
	10	11536			10.5	25	23.3		5.174	50				
	12	11537			13	25	24.3		5.250	50				
	16	11538			17	28	27.3		5.338	50				
	20	11539			21	31	31.3		5.644	50				
95 f	10	11540	15.5	20	10.5	29	25	25	7.400	50				
	12	11541			13	29	26		7.325	50				
	16	11542			17	29	28.5		7.735	50				
	20	11543			21	35	32.5		7.965	50				
120 f	10	11545	16.8	21.3	10.5	31	25.7	28	8.070	50				
	12	11546			13	31	26.7		8.160	50				
	16	11547			17	31	29.7		8.410	50				
	20	11548			21	35	33.7		8.765	50				
150 f	10	11549	19	24	10.5	35	27	29	10.290	25				
	12	11550			13	35	28		10.378	25				
	16	11551			17	35	31		10.825	25				
	20	11552			21	35	35		11.695	25				
185 f	12	11555	21	26	13	38	29	34	12.685	25				
	16	11556			17	38	32		13.455	25				
	20	11557			21	38	36		14.015	25				
240 f	12	11560	24	30	13	43	31	41	18.880	20				
	16	11561			17	43	34		21.870	20				
	20	11562			21	43	38		22.470	20				

Tubular butt-connectors 10 – 240 mm², for finewiring conductors

Material: Cu-HCP according to DIN EN 13600

Surface: tin plated – Type: with wirestop



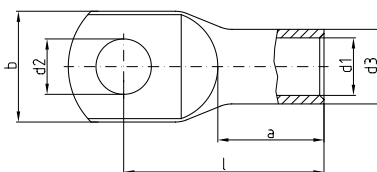
cross section mm ²	art.-no.	dimensions in mm			weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation			
		d ₁	d ₃	l						
10 f	13660	5	8	30	0.821	100	FW 10/70 page 114	AP 10 + HP 10 page 128, MP 2 page 121	AP 20 + HP 20 page 131	AP 30 + HP 30 page 134, HPW 17 page 135
16 f	13661	6	9	35	1.105	100				
25 f	13662	7.7	10.7	40	1.549	100				
35 f	13663	9.2	12.4	45	2.182	100				
50 f	13664	11.2	14.8	50	3.283	100	FW 10/70 page 114	AP 10 + HP 10 page 128, MP 2 page 121	AP 20 + HP 20 page 131	AP 30 + HP 30 page 134, HPW 17 page 135
70 f	13665	13.5	17.5	60	4.783	50				
95 f	13666	15.5	20	65	6.722	50				
120 f	13667	16.8	21.3	70	7.816	50				
150 f	13668	19	24	75	10.555	25	FW 10/70 page 114	AP 10 + HP 10 page 128, MP 2 page 121	AP 20 + HP 20 page 131	AP 30 + HP 30 page 134, HPW 17 page 135
185 f	13669	21	26	85	14.009	25				
240 f	13670	24	30	100	22.724	10				

**Tubular cable lugs and connectors, copper
euro-series
compatible to many other products**

Tubular cable lugs 0.5 – 25 mm², euro-series

Material: Cu-ETP (0.5 – 4 mm²) resp. Cu-HCP (from 6 mm² on) according to DIN EN 13600

Surface: tin plated – Type: without inspection hole or optional with inspection hole

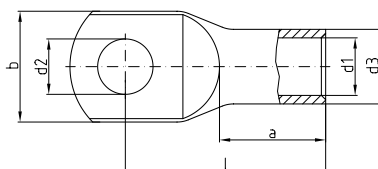


cross section mm ²	flat hole diameter M	without inspection hole art.-no.	dimensions in mm						weight 100 pcs. approx. kg	packing unit pcs.	with in- spection hole art.-no.	tool recommendation
			d ₁	d ₃	d ₂	b	l	a				
0.5 – 0.75	3	13000	1.4	3	3.2	6.5	12.5	6	0.071	100	–	WZ 21 page 96
	4	13001			4.3	8.5	14		0.074	100	–	
	5	13002			5.3	10	15		0.082	100	–	
1.0 – 1.5	3	13005	1.9	3.9	3.2	6.5	14	6	0.127	100	–	WZ 21 page 96
	4	13006			4.3	8.5	15		0.134	100	–	
	5	13007			5.3	10	16		0.145	100	–	
	6	13008			6.4	11	18		0.169	100	–	
2.5	4	13010	2.4	4.4	4.3	8.5	15	6.5	0.157	100	–	WZ 21 page 96
	5	13011			5.3	10	16		0.197	100	–	
	6	13012			6.4	11	18		0.192	100	–	
	8	13013			8.4	13	20		0.228	100	–	
4	4	13015	3	5	4.3	8.5	17	8	0.201	100	–	WZ 21 page 96
	5	13016			5.3	10	18		0.214	100	–	
	6	13017			6.4	11	20		0.237	100	–	
	8	13018			8.4	14	22		0.298	100	–	
6	4	16020	3.5	6.5	4.3	10	19	9	0.490	100	15215	WW 6/70 page 114
	5	16021			5.3	10	20		0.480	100	15216	
	6	16022			6.4	11	21.5		0.540	100	15217	
	8	16023			8.4	15	24		0.600	100	15218	
	10	16024			10.5	18	26		0.640	100	15219	
	12	16025			13	20	27.5		0.640	100	15220	
10	4	15204	4.5	7	4.3	12	20	10	0.430	100	15221	WW 10/120 page 115
	5	15205			5.3	12	21		0.480	100	15222	
	6	15206			6.4	12	22.5		0.510	100	15223	
	8	15207			8.4	15	25		0.630	100	15224	
	10	15208			10.5	18	27		0.670	100	15225	
	12	15209			13	20	28.5		0.670	100	15226	
16	5	15210	5.5	8.5	5.3	12	25	13	0.900	100	15228	WW 10/120 page 115
	6	15211			6.4	12	26.5		0.940	100	15229	
	8	15212			8.4	15	29		1.030	100	15230	
	10	15213			10.5	18	31		1.110	100	15231	
	12	15214			13	19	32		1.130	100	15232	
25	5	16296	7	10	5.3	15	33.5	15	1.380	100	15234	WW 10/120 page 115
	6	16215			6.4	15	31.5		1.330	100	15235	
	8	16216			8.4	16	33		1.360	100	15236	
	10	16217			10.5	18	34.5		1.530	100	15237	
	12	16218			13	20	36		1.590	100	15238	
	14	16219			15	22	39		1.660	100	15239	

Tubular cable lugs 35 – 120 mm², euro-series

Material: Cu-HCP according to DIN EN 13600

Surface: tin plated – Type: without inspection hole or optional with inspection hole

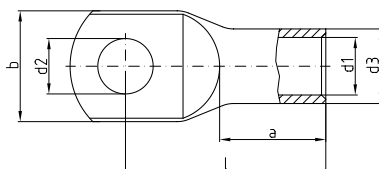


cross section mm ²	flat hole diameter M	without inspection hole art.-no.	dimensions in mm						weight 100 pcs. approx. kg	packing unit pcs.	with inspection hole art.-no.	tool recommendation			
			d ₁	d ₃	d ₂	b	l	a							
35	6	16220	8.5	12	6.4	17	33	17	1.99	100	15241	WW 6/70 page 114	WW 10/120 page 115	AP 10 + HP 10 page 128, AP 20 + HP 20 page 131, HPW 17 page 135	AP 30 + HP 30 page 134
	8	16221			8.4	17	34		2.06	100	15242				
	10	16222			10.5	20	36.5		2.20	100	15243				
	12	16223			13	22	37.5		2.21	100	15244				
	14	16281			15	23	40		2.44	100	15245				
	16	16292			17	28	44		2.60	100	15246				
50	6	16224	10	14	6.4	20	36	19	3.02	100	15248	WW 6/70 page 114	WW 10/120 page 115	AP 10 + HP 10 page 128, AP 20 + HP 20 page 131, HPW 17 page 135	AP 30 + HP 30 page 134
	8	16225			8.4	20	38		3.00	100	15249				
	10	16226			10.5	20	39.5		3.17	100	15250				
	12	16227			13	23	41		3.24	100	15251				
	14	16282			15	23	43		3.51	100	15252				
	16	16228			17	27	44		3.47	100	15253				
	20	16297			21	30.5	51.5		3.89	100	15254				
70	6	16229	12	16.5	6.4	24	40.5	21	4.28	25	15256	WW 6/70 page 114	WW 10/120 page 115	AP 10 + HP 10 page 128, AP 20 + HP 20 page 131, HPW 17 page 135	AP 30 + HP 30 page 134
	8	16230			8.4	24	42.5		4.38	25	15257				
	10	16231			10.5	24	43.5		4.54	25	15258				
	12	16232			13	24	45		4.64	25	15259				
	14	16283			15	25	46		4.83	25	15260				
	16	16233			17	28	48.5		5.04	25	15261				
	20	16234			21	29	52		5.27	25	15262				
95	6	16290	13.5	18	6.4	26	43	23	5.10	25	15263	WW 6/70 page 114	WW 10/120 page 115	AP 10 + HP 10 page 128, AP 20 + HP 20 page 131, HPW 17 page 135	AP 30 + HP 30 page 134
	8	16235			8.4	26	46		5.42	25	15264				
	10	16236			10.5	26	47		5.52	25	15265				
	12	16237			13	26	48		5.50	25	15266				
	14	16284			15	26	51.5		5.80	25	15267				
	16	16238			17	28	51		5.77	25	15268				
	20	16239			21	30	55		6.10	25	15269				
120	8	16285	15	20	8.4	29	49.5	26	7.19	25	15271	WW 6/70 page 114	WW 10/120 page 115	AP 10 + HP 10 page 128, AP 20 + HP 20 page 131, HPW 17 page 135	AP 30 + HP 30 page 134
	10	16240			10.5	29	52		7.72	25	15272				
	12	16241			13	29	51.5		7.62	25	15273				
	14	16286			15	30	53		8.00	25	15274				
	16	16242			17	30	55		7.86	25	15275				
	20	16243			21	35	60		8.54	25	15276				

Tubular cable lugs 150 – 630 mm², euro-series

Material: Cu-HCP according to DIN EN 13600

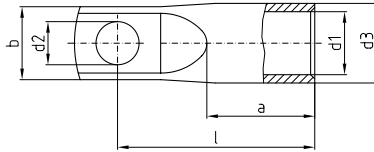
Surface: tin plated – Type: without inspection hole or optional with inspection hole



cross section mm ²	flat hole diameter M	without inspection hole art.-no.	dimensions in mm						weight 100 pcs. approx. kg	packing unit pcs.	with inspection hole art.-no.	tool recommendation			
			d ₁	d ₃	d ₂	b	l	a							
150	8	16244	16.5	22	8.4	32	55.5	30	9.76	25	15278	AP 10 + HP 10 page 128	AP 20 + HP 20 page 131	AP 30 + HP 30 page 134, HPW 17 page 135	HPW 18 page 144
	10	16245			10.5	32	58		10.30	25	15279				
	12	16246			13	32	57.5		9.99	25	15280				
	14	16287			15	32	58		10.35	25	15281				
	16	16247			17	32	61		10.60	25	15282				
	20	16248			21	35	63.5		11.00	25	15283				
185	10	16249	19	24	10.5	35	59	30	10.78	25	15285				
	12	16250			13	35	58.5		10.44	25	15286				
	14	16288			15	35	61		10.78	25	15287				
	16	16251			17	35	63		11.24	25	15288				
	20	16252			21	35	66		11.67	25	15289				
240	10	16254	21	26	10.5	38	67	35	12.62	25	15291				
	12	16255			13	38	67		12.94	25	15292				
	14	16289			15	38	69		13.00	25	15293				
	16	16256			17	38	69.5		13.07	25	15294				
	20	16257			21	38	71		13.68	25	15295				
300	12	13260	24	30	13	44	82	42	21.72	20	13760				
	14	13290			15	44	84		22.47	20	13790				
	16	13261			17	44	85		21.94	20	13761				
	20	13262			21	44	85		22.92	20	13762				
400	10	13263	27.5	33.5	10.5	49	92	47	27.90	15	–				
	12	13264			13	49	92		29.80	15	–				
	16	13265			17	49	92		27.90	15	–				
	20	13266			21	49	92		28.19	15	–				
500	16	13270	31	38	17	55.5	113	70	49.38	5	–				
	20	13271			21	55.5	113		48.56	5	–				
630	16	13275	34	41	17	60	115	70	52.28	5	–				
	20	13276			21	60	115		51.96	5	–				

Tubular cable lugs 35 – 240 mm² with narrow flange, euro-series for switchgear connections

Material: Cu-HCP according to DIN EN 13600, Surface: tin plated



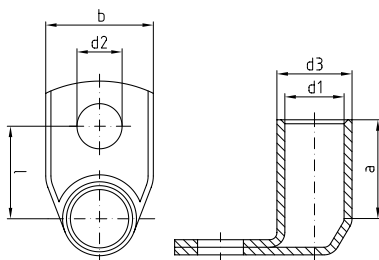
Angled version
on request!

cross section mm ²	flat hole diameter M	art.-no.	dimensions in mm						weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
			d ₁	d ₃	d ₂	b	l	a			
35	6	18220	8.5	12	6.4	15	33	17	1.93	100	WW 10/120 page 115, MP 1 page 118 AP 10 + HP 10 page 128, AP 20 + HP 20 page 131 AP 30 + HP 30 page 134, HPW 17 page 135
50	6	18224	10	14	6.4	15	37	19	2.72	25	
	8	18225			8.4	17	39		2.82	25	
	10	18226			10.5	17	41		3.07	25	
70	6	18229	12	16.5	6.4	17	41	21	3.98	25	
	8	18230			8.4	17	43		4.24	25	
	10	18231			10.5	17	45		4.30	25	
	12	18232			13	17	46		4.41	25	
95	6	18290	13.5	18	6.4	19	43	23	4.69	25	
	8	18235			8.4	19	45		4.90	25	
	10	18236			10.5	19	47		5.12	25	
	12	18237			13	19	48		5.12	25	
120	6	18280	15	20	6.4	19	48	26	6.38	25	
	8	18285			8.4	19	49		6.67	25	
	10	18240			10.5	19	51		6.92	25	
	12	18241			13	19	52		7.06	25	
150	6	18294	16.5	22	6.4	19	52	30	8.81	25	
	8	18244			8.4	19	54		8.98	25	
	10	18245			10.5	19	56		9.13	25	
	12	18246			13	22	58.5		9.22	25	
185	10	18249	19	24	10.5	26	60	30	10.22	25	
	12	18250			13	26	59.5		10.12	25	
	16	18251			17	26	64		10.91	25	
240	10	18254	21	26	10.5	30	64	35	11.52	25	
	12	18255			13	30	65		11.60	25	
	16	18256			17	30	68		11.97	25	

Tubular cable lugs with 90° angle, 0.5 – 35 mm², euro-series

Material: Cu-ETP (0.5 – 4 mm²) resp. Cu-HCP (from 6 mm² on) according to DIN EN 13600

Surface: tin plated

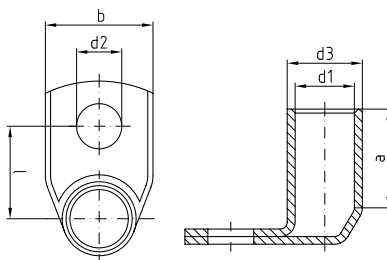


cross section mm ²	flat hole diameter M	art.-no.	dimensions in mm						weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
			d ₁	d ₃	d ₂	b	l	a			
0.5 – 0.75	3	13100	1.4	3	3.2	6.5	7.5	5	0.082	100	WZ 21 page 96
	4	13101			4.3	8.5	8.5		0.084	100	
	5	13102			5.3	10	9.5		0.092	100	
1.0 – 1.5	3	13105	1.9	3.9	3.2	6.5	8	5	0.146	100	
	4	13106			4.3	8.5	9		0.154	100	
	5	13107			5.3	10	10		0.152	100	
	6	13108			6.4	11	12		0.153	100	
2.5	4	13110	2.4	4.4	4.3	8.5	9.2	5.5	0.183	100	
	5	13111			5.3	10	10.2		0.184	100	
	6	13112			6.4	11	12.2		0.204	100	
	8	13113			8.4	14	14.2		0.227	100	
4	4	13115	3	5	4.3	8.5	9.5	7	0.228	100	
	5	13116			5.3	10	10.5		0.241	100	
	6	13117			6.4	11	12.5		0.285	100	
	8	13118			8.4	14	14.5		0.297	100	
6	4	16120	3.5	6.5	4.3	10	10.3	8	0.500	100	WW 6/70 page 114
	5	16121			5.3	11	11.3		0.560	100	
	6	16122			6.4	11	13.3		0.610	100	
	8	16123			8.4	15	15.3		0.570	100	
	10	16124			10.5	18	17.3		0.720	100	
	12	16125			13	20	18.3		0.700	100	
10	5	15305	4.5	7	5.3	12	11.5	9	0.540	100	
	6	15306			6.4	12	12.5		0.590	100	
	8	15307			8.4	15	15.5		0.670	100	
	10	15308			10.5	18	17.5		0.700	100	
	12	15309			13	20	18.5		0.700	100	
16	5	15310	5.5	8.5	5.3	12	13.0	12	1.070	100	WW 10/120 page 115
	6	15311			6.4	12	14.3		1.150	100	
	8	15312			8.4	15	16.3		1.200	100	
	10	15313			10.5	18	18.3		1.230	100	
	12	15314			13	20	19.3		1.230	100	
25	6	16315	7	10	6.4	15	15.5	14	1.480	100	
	8	16316			8.4	16	17.5		1.620	100	
	10	16317			10.5	18	19.5		1.670	100	
	12	16318			13	20	20.5		1.620	100	
	14	16319			15	22	22.5		2.070	100	
35	6	16320	8.5	12	6.4	17	16.5	16	2.110	100	AP 10 + HP 10 p. 128, AP 20 + HP 20 p. 131, HPW 17 p. 135
	8	16321			8.4	17	18.5		2.310	100	
	10	16322			10.5	20	20.5		2.390	100	
	12	16323			13	22	21.5		2.370	100	
	14	16381			15	23	23.5		2.480	100	
	16	16392			17	28	24.5		2.480	100	

Tubular cable lugs with 90°angle, 50 – 300 mm², euro-series

Material: Cu-HCP according to DIN EN 13600

Surface: tin plated

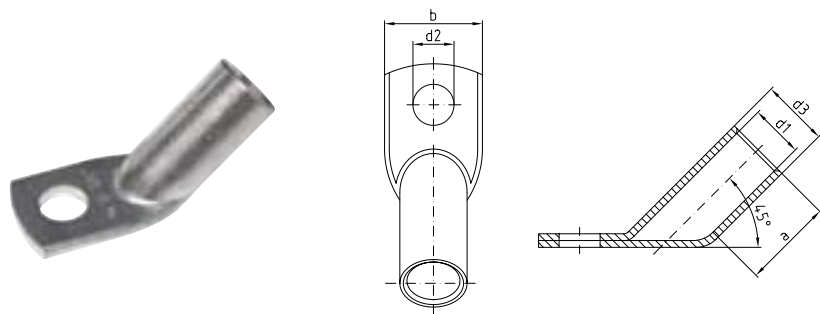


cross section mm ²	flat hole diameter M	art.-no.	dimensions in mm						weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation			
			d ₁	d ₃	d ₂	b	l	a						
50	6	16324	10	14	6.4	20	17.5	18	3.00	100	WW 6/70 page 114	WW 10/120 page 115	AP 10 + HP 10 page 128	AP 20 + HP 20 page 131, AP 30 + HP 30 page 134, HPW 17 page 135
	8	16325			8.4	20	19.5		3.22	100				
	10	16326			10.5	20	21.5		3.32	100				
	12	16327			13	23	22.5		3.28	100				
	14	16382			15	23	24.5		3.37	100				
	16	16328			17	27	25.5		3.77	100				
70	6	16329	12	16.5	6.4	24	18.8	20	4.41	25				
	8	16330			8.4	24	20.8		4.47	25				
	10	16331			10.5	24	22.8		5.00	25				
	12	16332			13	24	23.8		4.72	25				
	14	16383			15	25	25.8		4.84	25				
	16	16333			17	28	26.8		5.11	25				
	20	16334			21	29	30.8		5.26	25				
95	8	16335	13.5	18	8.4	26	21.5	22	5.33	25				
	10	16336			10.5	26	23.5		5.59	25				
	12	16337			13	26	24.5		5.58	25				
	14	16384			15	26	26.5		5.95	25				
	16	16338			17	28	27.5		6.00	25				
120	8	16385	15	20	8.4	29	22.5	25	7.88	25				
	10	16340			10.5	29	24.5		8.19	25				
	12	16341			13	29	25.5		8.27	25				
	16	16342			17	30	28.5		8.52	25				
150	8	16344	16.5	22	8.4	32	26	29	9.52	25				
	10	16345			10.5	32	26		9.55	25				
	12	16346			13	32	27		10.34	25				
	16	16347			17	32	30		10.56	25				
	20	16348			21	35	34		11.79	25				
185	10	16349	19	24	10.5	35	27	29	12.40	25				
	12	16350			13	35	28		12.21	25				
	16	16351			17	35	31		12.69	25				
	20	16352			21	35	35		12.70	25				
240	10	16354	21	26	10.5	40	28	34	14.42	25				
	12	16355			13	40	29		13.93	25				
	16	16356			17	40	32		14.72	25				
	20	16357			21	40	36		16.02	25				
300	12	13360	24	30	13	43	31	41	18.88	20				
	16	13361			17	43	34		21.87	20				
	20	13362			21	43	38		22.47	20				

Tubular cable lugs with 45° angle, 10 – 70 mm², euro-series

Material: Cu-HCP according to DIN EN 13600

Surface: tin plated

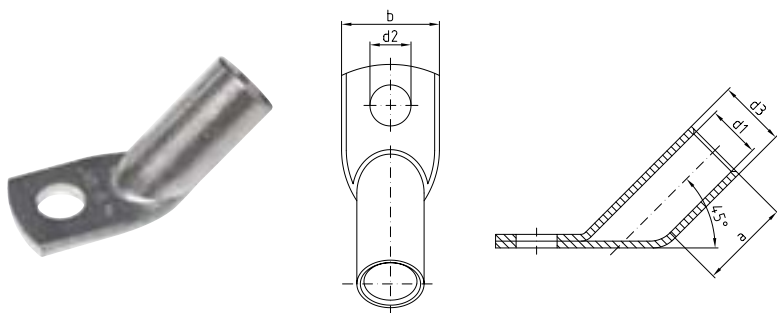


cross section mm ²	flat hole diameter M	art.-no.	dimensions in mm					weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation			
			d ₁	d ₃	d ₂	b	a						
10	5	15134	4.5	7	5.3	12	9	0.58	100	WW 6/50 page 113, MP13 page 116	WW 10/70 page 114, DP 6/95 p. 112, MP1 page 118	WW 10/120 page 115, AP 10 + HP 10 page 128, MP 2 page 121	AP 20 + HP 20 page 131, AP 30 + HP 30 page 134, HPW17 page 135
	6	15135			6.4	12		0.52	100				
	8	15136			8.4	15		0.65	100				
16	5	15139	5.5	8.5	5.3	12	12	0.85	100				
	6	15140			6.4	12		1.06	100				
	8	15141			8.4	15		1.15	100				
	10	15142			10.5	18		1.21	100				
25	6	16145	7	10	6.4	15	14	1.40	100				
	8	16146			8.4	16		1.55	100				
	10	16147			10.5	18		1.67	100				
	12	16148			13	20		1.69	100				
35	6	16150	8.5	12	6.4	17	16	2.17	50				
	8	16151			8.4	17		2.30	50				
	10	16152			10.5	20		2.42	50				
	12	16153			13	22		2.45	50				
50	8	16155	10	14	8.4	20	18	3.66	50				
	10	16156			10.5	20		3.86	50				
	12	16157			13	23		3.86	50				
70	8	16160	12	16.5	8.4	24	20	4.98	25				
	10	16161			10.5	24		5.31	25				
	12	16162			13	24		5.24	25				

Tubular cable lugs with 45° angle, 95 – 240 mm², euro-series

Material: Cu-HCP according to DIN EN 13600

Surface: tin plated

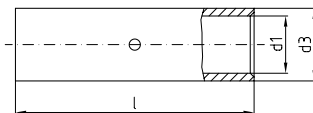


cross section mm ²	flat hole diameter M	art.-no.	dimensions in mm					weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
			d ₁	d ₃	d ₂	b	a			
95	8	16165	13.5	18	8.4	26	22	6.03	25	DP 6/95 page 112 WW 10/120 page 115, MP 1 page 118 MP 2 page 121, AP 10 + HP 10 page 128, AP 20 + HP 20 page 131 AP 30 + HP 30 page 134, HPW 17 page 135
	10	16166			10.5	26		6.44	25	
	12	16167			13	26		6.39	25	
120	8	16169	15	20	8.4	29	25	8.06	25	
	10	16170			10.5	29		8.55	25	
	12	16171			13	29		8.77	25	
	16	16172			17	30		9.09	25	
150	10	16174	16.5	22	10.5	32	29	11.16	25	
	12	16175			13	32		11.38	25	
	16	16176			17	32		11.88	25	
185	10	16178	19	24	10.5	35	29	12.22	20	
	12	16179			13	35		12.21	20	
	16	16180			17	35		12.81	20	
	20	16181			21	35		13.35	20	
240	12	16183	21	26	13	38	34	14.28	15	
	16	16184			17	38		14.86	15	
	20	16185			21	38		15.46	15	

Tubular butt-connectors 0.5 – 630 mm², euro-series

Material: Cu-ETP (0.5 – 4 mm²) resp. Cu-HCP (from 6 mm² on) according to DIN EN 13600

Surface: tin plated or optionally uncoated – Type: with wirestop



cross section mm ²	art.-no.	dimensions in mm			weight 100 pcs. ca. kg	packing unit pcs.	tool recommendation
		d ₁	d ₃	l			
0.5 – 0.75	16450	1.4	3	20	0.09	100	WZ 21 p. 96 WW 10/120 p. 115 DP 6/95 page 112 AP 10 + HP 10 page 128 AP 30 + HP 30 p. 134, HPW 17 p. 135 HPW 18 page 144
1.0 – 1.5	16452	1.9	3.9	20	0.16	100	
2.5	16454	2.4	4.4	20	0.19	100	
4	16456	3	5	19	0.21	100	
6	16458	3.5	6.5	25	0.52	100	
10	15460	4.5	7	30	0.59	50	
16	15462	5.5	8.5	35	1.00	50	
25	16464	7	10.5	40	1.49	50	
35	16466	8.5	12	45	2.24	50	
50	16468	10	14	50	3.56	50	
70	16470	12	16.5	55	5.15	50	
95	16472	13.5	18	60	6.11	50	
120	16474	15	20	65	8.12	25	
150	16476	16.5	22	70	11.08	25	
185	16478	19	24	75	11.58	25	
240	16480	21	26	85	13.68	25	
300	13482	24	30	100	22.40	10	
400	13484	27.5	33.5	100	26.17	10	
500	13486	31	38	140	49.68	5	
630	13488	34	41	160	61.75	5	

Assortment box with tubular cable lugs, euro-series

Material: varnished steel, with 12 small compartments and 1 tool-compartment

Measurements: 405 x 250 x 50 mm



**Special filling
on request!**

Contents of tubular cable lugs, euro-series:

25 pcs.	6 mm ²	M 6	no. 16022
25 pcs.	6 mm ²	M 8	no. 16023
25 pcs.	10 mm ²	M 6	no. 15206
25 pcs.	10 mm ²	M 8	no. 15207
25 pcs.	16 mm ²	M 8	no. 15212
25 pcs.	16 mm ²	M 10	no. 15213
25 pcs.	25 mm ²	M 8	no. 16216
25 pcs.	25 mm ²	M 10	no. 16217
20 pcs.	35 mm ²	M 8	no. 16221
20 pcs.	35 mm ²	M 10	no. 16222
20 pcs.	50 mm ²	M 10	no. 16226
20 pcs.	50 mm ²	M 12	no. 16227

1 pc. crimping tool WW 6/50 no. 90179

art.-no.: 90891

Assortment box without contents

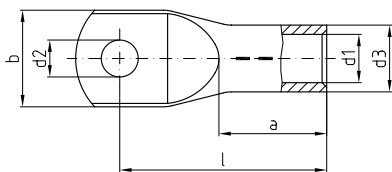
art.-no: 90877

Tubular compression cable lugs, copper, DIN 46235
Tubular compression cable lugs 90° angled, copper,
tube measurements in accordance with DIN 46235
Tubular compression cable lugs, 1- and 2-conductor version,
with 2 holes, copper
Compression bolts, copper
Tubular compression connectors, copper, DIN 46267 part 1
Tubular compression connectors with oil stop, copper,
tube measurements according to DIN 46267 part 1
Compression tab-connectors, H-shape, copper

Tubular compression cable lugs 6 – 95 mm², DIN 46235

Material: Cu-ETP (6 + 10 mm²) resp. Cu-HCP (from 16 mm² on) according to DIN EN 13600

Surface: tin plated or optionally uncoated



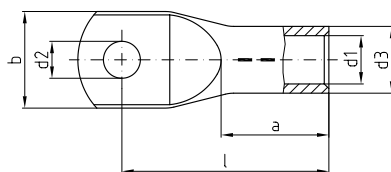
* not standardized, tube measurements in accordance with DIN 46235

cross section mm ²	flat hole diameter M	tin plated art.-no.	die code no.	dimensions in mm						weight 100 pcs. approx. kg	packing unit pcs.	un- coated art.-no.	tool recommendation
				d ₁	d ₃	d ₂	b	l	a				
6	5	14021	5	3.7	5.5	5.3	8.5	24	10	0.31	100	14121	DW 6/70 page 114 DW 10/20 page 115 MP 1 page 118, MP 2 page 121, MHP 10/400 page 124 AP 10 + HP 10 page 128, AP 20 + HP 20 page 131, AP 30 + HP 30 page 134, HPW 17 page 135
	6	14022				6.4	9	24		0.35	100	14122	
	8*	14023				8.4	13	26		0.35	100	14123	
10	5	14205	6	4.4	6	5.3	10	27	10	0.34	100	14605	
	6	14206				6.4	10	27		0.37	100	14606	
	8*	14207				8.4	13	28		0.38	100	14607	
	10*	14208				10.5	15	29		0.38	100	14608	
16	5*	14210	8	5.5	8.5	5.3	13	36	20	1.22	100	14610	
	6	14211				6.4	13	36		1.27	100	14611	
	8	14212				8.4	13	37		1.30	100	14612	
	10	14213				10.5	16.5	38		1.34	100	14613	
	12*	14214				13	19	40		1.36	100	14614	
25	6	14215	10	7	10	6.4	14	39	20	1.62	100	14615	
	8	14216				8.4	17	39		1.73	100	14616	
	10	14217				10.5	17	40.5		1.77	100	14617	
	12	14218				13	18	40.5		1.73	100	14618	
	16*	14219				17	22	45		1.91	100	14619	
35	6*	14220	12	8.2	12.5	6.4	17.5	42.5	20	3.12	100	14620	
	8	14221				8.4	18	42		3.29	100	14621	
	10	14222				10.5	20	42.5		3.18	100	14622	
	12	14223				13	21	43		3.17	100	14623	
	16*	14224				17	28	47		3.14	100	14624	
50	6*	14284	14	10	14.5	6.4	20	52	28	4.59	100	14684	
	8	14225				8.4	20	52		4.72	100	14625	
	10	14226				10.5	22	52		4.81	100	14626	
	12	14227				13	24	52		4.70	100	14627	
	14*	14293				15	26	53.5		4.81	100	14693	
	16	14228				17	28	55.5		4.90	100	14628	
70	8	14230	16	11.3	16.5	8.4	24	56	28	6.54	50	14630	
	10	14231				10.5	24	56		6.59	50	14631	
	12	14232				13	24	56.5		6.49	50	14632	
	14*	14292				15	24	55.5		6.40	50	14692	
	16	14233				17	29	57		6.41	50	14633	
95	8*	14235	18	13.5	19	8.4	28	65	35	9.36	50	14635	
	10	14236				10.5	28	65.5		9.55	50	14636	
	12	14237				13	28	65.5		9.45	50	14637	
	14*	14285				15	28	65.5		9.49	50	14685	
	16	14238				17	31	65.5		9.44	50	14638	
	20*	14239				21	33	71		9.86	50	14639	

Tubular compression cable lugs 120 – 1000 mm², DIN 46235

Material: Cu-HCP according to DIN EN 13600

Surface: tin plated or optionally uncoated



* not standardized, tube measurements in accordance with DIN 46235

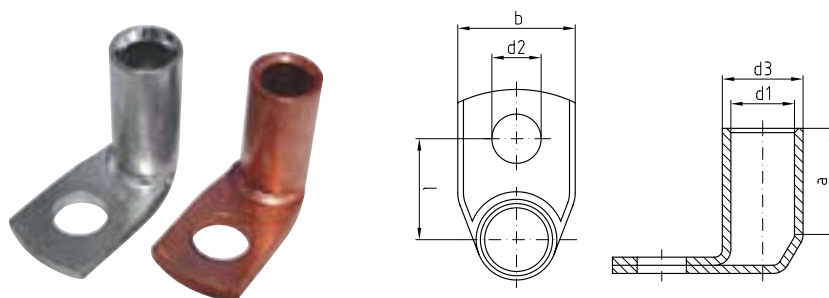
cross section mm ²	flat hole diameter M	tin plated art.-no.	die code no.	dimensions in mm						weight 100 pcs. approx. kg	packing unit pcs.	un- coated art.-no.	tool recommendation
				d ₁	d ₃	d ₂	b	l	a				
120	8*	14282	20	15.5	21	8.4	31	70	35	11.35	50	14682	DW 10/120 p. 115 AP 10 + HP 10 page 128 AP 30 + HP 30 page 134, HPW 17 page 135 HPW 18 page 144
	10	14240				10.5	31	70		11.40	50	14640	
	12	14241				13	31	70.5		11.47	50	14641	
	14*	14283				15	31	70		11.15	50	14683	
	16	14242				17	31.5	70		11.15	50	14642	
	20	14243				21	36	72		11.51	50	14643	
150	10	14245	22	17	23.5	10.5	34	79	35	16.41	25	14645	
	12	14246				13	34	78.5		16.78	25	14646	
	14*	14294				15	34	78		16.35	25	14694	
	16	14247				17	34	78		16.35	25	14647	
	20	14248				21	38	78		15.98	25	14648	
185	10	14249	25	19	25.5	10.5	37	83	40	18.50	25	14649	
	12	14250				13	37	82.5		18.95	25	14650	
	14*	14295				15	37	82		18.88	25	14695	
	16	14251				17	37	82		18.78	25	14651	
	20	14252				21	40	83		18.90	25	14652	
240	10*	14254	28	21.5	29	10.5	42	92	40	27.48	20	14654	
	12	14255				13	42.5	92		27.35	20	14655	
	14*	14287				15	42.5	92		27.50	20	14687	
	16	14256				17	42.5	92		27.63	20	14656	
	20	14257				21	45	92		27.06	20	14657	
300	10*	14259	32	24.5	32	10.5	48.5	104	50	34.80	10	14659	
	12*	14260				13	48.5	104		33.65	10	14660	
	14*	14291				15	48.5	104		34.80	10	14691	
	16	14261				17	48.5	100		32.90	10	14661	
	20	14262				21	48.5	100		34.46	10	14662	
400	12*	14264	38	27.5	38.5	13	55	117	70	71.70	5	14664	
	16	14265				17	55	117		70.28	5	14665	
	20	14266				21	55	117		70.60	5	14666	
500	12*	14269	42	31	42	13	60	130	70	86.92	5	14669	
	14*	14289				15	60	130		89.50	5	14689	
	16*	14270				17	60	130		89.27	5	14670	
	20	14271				21	60	130		88.14	5	14671	
625	16*	14275	44	34.5	44	17	63	135	80	84.94	5	14675	
	20	14276				21	63	135		82.05	5	14676	
800	16*	14280	52	40	52	17	75	165	100	143.00	2	14680	
	20	14281				21	75	165		145.55	2	14681	
1000	20	14286	58	44	58	21	83	165	100	189.00	2	14686	

Tubular compression cable lugs with 90° angle, 10 – 70 mm²

Tube measurements according to DIN 46 235

Surface: tin plated or optionally uncoated

Material: Cu-ETP (10 mm²) resp. Cu-HCP (from 16 mm² on) according to DIN EN 13600



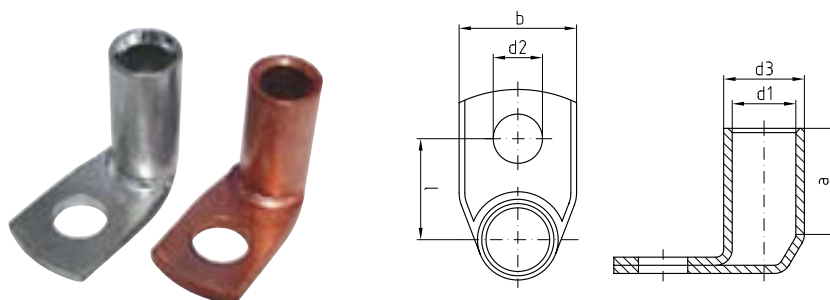
cross section mm ²	flat hole diameter M	tin plated art.-no.	die code no.	dimensions in mm						weight 100 pcs. approx. kg	packing unit pcs.	un- coated art.-no.	tool recommendation			
				d ₁	d ₃	d ₂	b	l	a							
10	6	14306	6	4.4	6	6.4	10	13	10	0.39	100	14706	DW 6/70 page 114	DW 10/120 page 115, MP 1 page 118	MP 2 page 121, AP 10 + HP 10 page 128	AP 20 + HP 20 page 131, AP 30 + HP 30 page 134, HPW 17 page 135
	8	14307				8.4	13	15		0.50	100	14707				
16	6	14311	8	5.5	8.5	6.4	13	15	20	1.27	100	14711				
	8	14312				8.4	13	16.3		1.30	100	14712				
	10	14313				10.5	16.5	18.3		1.41	100	14713				
	12	14314				13	19	19.3		1.38	100	14714				
25	6	14315	10	7	10	6.4	15	15.5	20	1.57	100	14715				
	8	14316				8.4	16	17.5		1.76	100	14716				
	10	14317				10.5	16	19.5		1.84	100	14717				
	12	14318				13	19	20.5		1.72	100	14718				
35	8	14321	12	8.2	12.5	8.4	17	18.8	20	3.04	100	14721				
	10	14322				10.5	19	20.8		3.12	100	14722				
	12	14323				13	21	21.8		3.26	100	14723				
50	8	14325	14	10	14.5	8.4	20	19.8	28	4.36	100	14725				
	10	14326				10.5	22	21.8		4.52	100	14726				
	12	14327				13	24	22.8		4.55	100	14727				
	16	14328				17	27	25.8		4.80	100	14728				
70	8	14330	16	11.3	16.5	8.4	23	20.8	28	5.93	25	14730				
	10	14331				10.5	24	22.8		6.51	25	14731				
	12	14332				13	24	23.8		6.56	25	14732				
	16	14333				17	29	26.8		6.31	25	14733				

Tubular compression cable lugs with 90° angle, 95 – 300 mm²

Tube measurements according to DIN 46 235

Surface: tin plated or optionally uncoated

Material: Cu-HCP according to DIN EN 13600

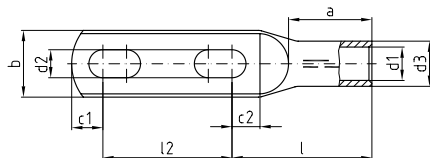


cross section mm ²	flat hole diameter M	tin plated art.-no.	die code no.	dimensions in mm						weight 100 pcs. approx. kg	packing unit pcs.	un- coated art.-no.	tool recommendation			
				d ₁	d ₃	d ₂	b	l	a							
95	8	14335	18	13.5	19	8.4	28	22	35	8.67	25	14735	DW 10/120 page 115	AP 10 + HP 10 page 128	AP 30 + HP 30 page 134, HPW 17 page 135, AP 20 + HP 20 page 131	HPW 18 page 144
	10	14336				10.5	28	24		9.37	25	14736				
	12	14337				13	28	25		9.49	25	14737				
	16	14338				17	32	28		9.67	25	14738				
120	10	14340	20	15.5	21	10.5	32	25.5	35	12.09	25	14740				
	12	14341				13	32	32		11.21	25	14741				
	16	14342				17	32	29.5		11.98	25	14742				
	20	14343				21	38	33.5		12.39	25	14743				
150	8	14344	22	17	23.5	8.4	34	26.8	35	12.98	25	14744				
	10	14345				10.5	34	26.8		13.70	25	14745				
	12	14346				13	34	27.8		14.30	25	14746				
	16	14347				17	34	30.8		14.32	25	14747				
	20	14348				21	34	34.8		15.18	25	14748				
185	8	14396	25	19	25.5	8.4	37	25.8	40	15.97	25	14796				
	10	14349				10.5	37	27.8		19.83	25	14749				
	12	14350				13	37	28.8		17.45	25	14750				
	16	14351				17	37	31.8		17.18	25	14751				
	20	14352				21	40	35.8		20.20	25	14752				
240	12	14355	28	21.5	29	13	42	30.5	40	22.61	20	14755				
	16	14356				17	42	33.5		24.46	20	14756				
	20	14357				21	42	37.5		25.59	20	14757				
300	12	14360	32	24.5	32	13	48.5	32	50	29.52	10	14760				
	16	14361				17	48.5	35		30.93	10	14761				
	20	14362				21	48.5	39		32.30	10	14762				

Compression cable lugs 70 – 120 mm²

with two holes á 13 x 24 mm, Tube measurements according to DIN 46235

Material: Cu-HCP according to DIN EN 13600, Surface: tin plated or optionally uncoated

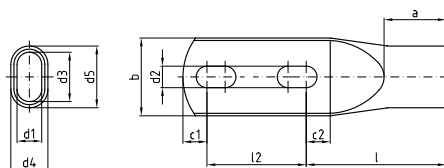


cross section mm ²	flat hole diameter	art.-no.	die code no.	dimensions in mm									weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation			
				d ₁	d ₃	d ₂	b	l	l ₂	a	c ₁	c ₂						
70	2 x M 12	14032	16	11.3	16.5	13	24	61.5	38-60	28	14.5	14.5	11.6	25	10/120	DW	AP 10, HP 10	AP 30, HPW 17
95	2 x M 12	14037	18	13.5	19	13	28	63	38-60	35	14.5	15	15.4	25				
120	2 x M 12	14041	20	15.5	21	13	31	65	38-60	35	14.5	13	17.6	25				

Compression cable lugs, 2-conductor-version 2 x 70 – 2 x 120 mm²

with 2 holes á 13 x 24 mm

Material: Cu-HCP according to DIN EN 13600, Surface: tin plated or optionally uncoated

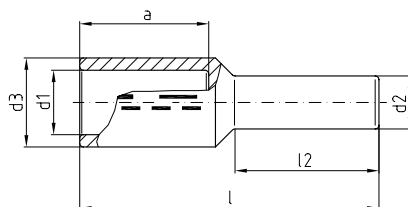


cross section mm ²	flat hole diameter	art.-no	diemensions in mm											weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation		
			d ₁	d ₃	d ₄	d ₅	d ₂	b	l	l ₂	a	c ₁	c ₂					
2 x 70	2 x M 12	14132	11.5	23.3	18	29.8	13	37	71.5	38-60	28	14.5	14.5	27.6	10	AP 30 HP 30 HPW 17		
2 x 95	2 x M 12	14137	13.5	26.1	21	33.6	13	42	81.5	38-60	35	14.5	14.5	39.3	5			
2 x 120	2 x M 12	14141	14.9	29.8	22.4	37.3	13	47	84.5	38-60	35	14.5	14.5	45.3	5			

Compression bolts 120 – 240 mm²

Tube measurements according to DIN 46235

Material: Cu-ETP according to DIN EN 13601, Surface: tin plated or optionally uncoated

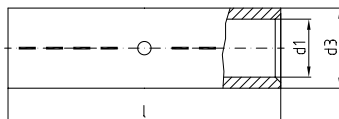
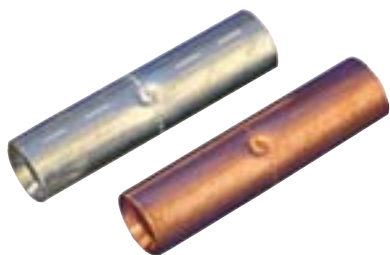


cross section mm ²	art.-no.	die code no.	dimension in mm						weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation		
			d ₁	d ₃	d ₂	l	l ₂	a					
120	14514	20	15.5	21	13	79	38	35	10.8	10	AP 20 HP 20 AP 30 HP 30 HPW 17		
150	14516	22	17	23.5	14	79	38	35	13.3	10			
185	14518	25	19	25.5	16	90	44	40	17.9	5			
240	14520	28	21.5	29	18	90	44	40	23.0	5			

Tubular compression connectors 6 – 1000 mm², DIN 46267 part 1

Material: Cu-ETP (6 + 10 mm²) resp. Cu-HCP (from 16 mm² on) according to DIN EN 13600

Surface: tin plated or optionally uncoated



Tubular compression connectors for medium voltage conductors 10 – 30 kV are available on request!

cross section mm²	tin plated art.-no.	die code no.	dimensions in mm			weight 100 pcs. approx. kg	packing unit pcs.	un- coated art.-no.	tool recommendation			
			d ₁	d ₃	l							
6	14458	5	3.7	5.5	30	0.35	100	14858	AP 10 + HP 10 p. 128	DW 10/120 p. 115	AP30 + HP30 p. 134, HPW17 p. 135	DW 6/70 p. 114
10	14460	6	4.4	6	30	0.34	100	14860				
16	14462	8	5.5	8.5	50	1.53	100	14862				
25	14464	10	7	10	50	1.86	100	14864				
35	14466	12	8.2	12.5	50	3.23	100	14866				
50	14468	14	10	14.5	56	4.58	50	14868				
70	14470	16	11.3	16.5	56	5.64	50	14870				
95	14472	18	13.5	19	70	8.98	50	14872				
120	14474	20	15.5	21	70	10.33	25	14874				
150	14476	22	17	23.5	80	15.03	25	14876				
185	14478	25	19	25.5	85	16.78	25	14878	HPW 18 page 144			
240	14480	28	21.5	29	90	23.20	15	14880				
300	14482	32	24.5	32	100	29.50	10	14882				
400	14484	38	27.5	38.5	150	76.70	5	14884				
500	14486	42	31	42	160	88.25	5	14886				
625	14488	44	34.5	44	160	84.40	5	14888				
800	14490	52	40	52	200	152.00	3	14890				
1000	14492	58	44	58	200	197.00	3	14892				

Assortment box with tubular compression cable lugs, DIN 46235

Material: varnished steel, with 12 small compartments and 1 tool-compartment

Measurements: 405 x 250 x 50 mm



Special filling on request!

Contents of tubular compression cable lugs, DIN 46235:

25 pcs.	6 mm ²	M 6	no. 14022
25 pcs.	6 mm ²	M 8	no. 14023
25 pcs.	10 mm ²	M 6	no. 14206
25 pcs.	10 mm ²	M 8	no. 14207
25 pcs.	16 mm ²	M 8	no. 14212
25 pcs.	16 mm ²	M 10	no. 14213
25 pcs.	25 mm ²	M 8	no. 14216
25 pcs.	25 mm ²	M 10	no. 14217
20 pcs.	35 mm ²	M 8	no. 14221
20 pcs.	35 mm ²	M 10	no. 14222
15 pcs.	50 mm ²	M 10	no. 14226
15 pcs.	50 mm ²	M 12	no. 14227

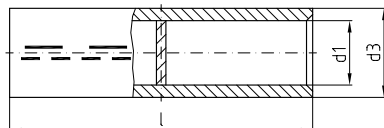
1 pc. crimping tool DW 6/50 no. 90178
art.-no.: 90893

Assortmentbox without contents
art.-no.: 90877

Tubular compression connectors 35 – 240 mm², with oil stop

Tube measurements according to DIN 46 267 part 1

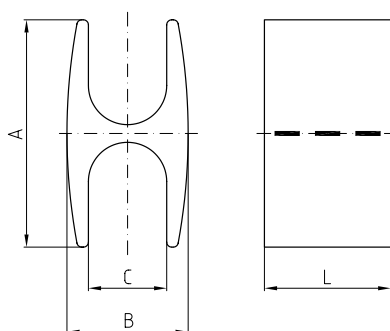
The copper separation in the middle guarantees a complete oil stop.
Material: Cu-HCP according to DIN EN 13600, Surface: tin plated or optionally uncoated



cross section mm ²	tin plated art.-no.	die code no.	dimensions in mm			weight 100 pcs. approx. kg	packing unit pcs.	un- coated art.-no.	tool recommendation			
			d ₁	d ₃	l							
35	14566	12	8.2	12.5	50	3.43	100	14966	DW 10/120 page 115	AP 10 + HP 10 page 128	AP 20 + HP 20 page 131	AP 30 + HP 30 p. 134, HPW 17 p. 135
50	14568	14	10	14.5	56	4.78	50	14968				
70	14570	16	11.3	16.5	56	5.94	50	14970				
95	14572	18	13.5	19	70	9.28	50	14972				
120	14574	20	15.5	21	70	10.93	25	14974				
150	14576	22	17	23.5	80	15.73	25	14976				
185	14578	25	19	25.5	85	17.10	25	14978				
240	14580	28	21.5	29	90	25.34	15	14980				

Compression tab-connectors, H-Shape for copper conductors according to DIN 48201

Material: Cu-ETP according to DIN EN 13601, Surface: tin plated or optionally uncoated

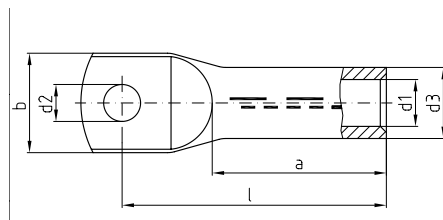


cross section main con- ductor mm ²	tab con- ductor mm ²	tin plated art.-no.	dimensions in mm				weight 100 pcs. approx. kg	packing unit pcs.	un- coated art.-no.	tool recommendation	
			A	B	C	L					
70	70	14420	34	17	10.8	28	6.19	25	14820	AP 30 p. 134	HPW 17 p. 135
95	95	14422	40	22	13.0	30	9.69	25	14822		
120	120	14424	45	24	15.5	25	10.24	25	14824		

Tubular compression cable lugs, aluminium
Tubular compression connectors, aluminium
Bi-metallic compression cable lugs, aluminium/copper
Bi-metallic compression connectors, aluminium/copper
Bi-metallic washers

Tubular compression cable lugs 16 – 300 mm², aluminium for aluminium conductors DIN 48 201

Material: Al 99.5, Surface: uncoated, Sleeves are prefilled with compound!



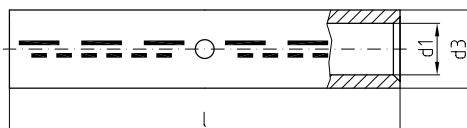
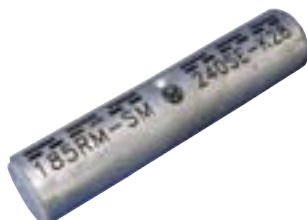
cross section mm ² rm/sm*	flat hole diameter se** M	art.-no.	die code no.	dimensions in mm							weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
				d ₁	d ₃	d ₂	b	l	a				
16	–	8	21212	10	5.6	10	8.4	16	52	26	0.95	50	AP 10 + HP 10 page 128 MP 2 page 121, MHP 10/400 page 124, AP 20 + HP 20 page 131 AP 30 + HP 30 page 134, HPW 17 page 135 DW 6/70 page 114 HPW 18 page 144
		10	21213				10.5	18	52		1.01	50	
25	–	8	21216	12	7	12	8.4	16	60	34	1.48	50	
		10	21217				10.5	18	60		1.53	50	
35	50	10	21222	14	8	14	10.5	20	67	40	2.45	50	
		12	21223				13	20	67		2.35	50	
50	70	10	21226	16	10	16	10.5	23	74	42	3.35	25	
		12	21227				13	23	74		3.34	25	
70	95	10	21231	18	11.5	18.5	10.5	28	84	50	4.77	25	
		12	21232				13	28	84		4.73	25	
95	120	10	21236	22	13.4	22	10.5	32	90	55	7.85	10	
		12	21237				13	32	90		7.73	10	
		16	21238				17	32	90		7.96	10	
120	150	10	21240	22	15	23	10.5	32	98	60	8.38	10	
		12	21241				13	32	98		7.91	10	
		16	21242				17	32	98		8.41	10	
150	185	10	21245	25	16.5	25	10.5	35	104	64	10.00	10	
		12	21246				13	35	104		10.03	10	
		16	21247				17	35	104		9.06	10	
		20	21248				21	35	104		10.02	10	
185	240	12	21250	28	18.5	28.5	13	40	109	66	13.39	10	
		16	21251				17	40	109		13.75	10	
		20	21252				21	40	109		13.76	10	
240	300	12	21255	32	21.3	32	13	46	119	70	16.44	10	
		16	21256				17	46	119		17.62	10	
		20	21257				21	46	119		17.90	10	
300	–	16	21261	34	23.4	34	17	50	125	72	22.10	5	
		20	21262				21	50	125		19.43	5	

*rm = round stranded
sm = sector stranded

**se = sector solid (Sector solid shaped conductors
must be rounded with dies for round-forming)

Tubular compression connectors 16 –300 mm², aluminium DIN 46267 part 2

Material: Al 99.5, Surface: uncoated, Sleeves are prefilled with compound!



Tubular compression connectors for medium voltage conductors 10 – 30 kV are available on request!

cross section mm ² rm/sm* se**	art.-no.	die code no.	dimensions in mm			weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation			
			d ₁	d ₃	l						
16 –	21462	10	5.6	10	55	1.05	50	AP 10 + HP 10 p. 128	MP 2 p. 121, MHP 10/400 p. 124	AP 30 + HP 30 p. 134, HPW 17 p. 135	DW 6/70 HPW 18 p. 144
25 –	21464	12	7.0	12	70	1.78	50				
35 50	21466	14	8.0	14	85	2.85	50				
50 70	21468	16	10.0	16	85	3.61	25				
70 95	21470	18	11.5	18.5	105	5.59	25				
95 120	21472	22	13.4	22	105	8.50	10				
120 150	21474	22	15.0	23	105	8.48	10				
150 185	21476	25	16.5	25	125	11.13	10				
185 240	21478	28	18.5	28.5	125	14.35	10				
240 300	21480	32	21.3	32	145	19.17	10				
300 –	21482	34	23.4	34	145	22.71	10				

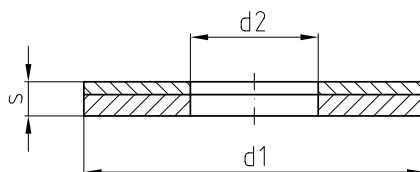
*rm = round stranded
sm = sector stranded

**se = sector solid (Sector solid shaped conductors must be rounded with dies for round-forming)

Bi-metallic washers

Aluminium sheet, one-sided copper plated

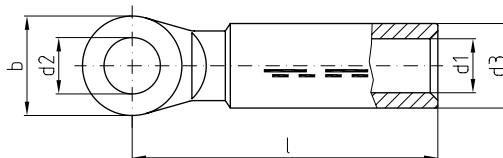
Material: Al 99.5 according to DIN EN 573-3 and Cu-DHP according to DIN EN 1652



flat hole diameter M	art.-no.	dimensions in mm			weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
		d ₁	d ₂	s			
6	21903	15	6.5	1	0.06	100	–
8	21906	18	8.5	1	0.09	100	–
10	21909	22	10.5	1	0.14	50	–
10	21912	26	11	1	0.23	50	–
12	21915	26	13	2	0.36	50	–
12	21918	30	13	2	0.52	50	–
16	21921	35	17	2	0.65	50	–
20	21924	37	21	2	0.61	25	–

Bi-metallic tubular compression cable lugs 25 – 240 mm², for aluminium conductors DIN 48201

Material: Al 99.5 and Cu-ETP according to DIN EN 13601, Surface: uncoated
Al-sleeves are prefilled with compound!



cross section mm ² rm/sm*	flat hole diameter se** M	art.-no.	die code no.	dimensions in mm						weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
				d ₁	d ₃	d ₂	b	l				
25	–	8	21716	12	6.8	12	8.4	20	65	3.15	25	DW 10/120 page 115 AP 10 + HP 10 page 128 MP 2 page 121, MHP 10/400 page 124, AP 20 + HP 20 page 131 AP 30 + HP 30 page 134, HPW 17 page 135, HPW 18 page 144
		10	21717				10.5			3.09	25	
35	50	10	21722	14	8	14	10.5	20	75	3.44	25	
		12	21723				13	26		3.24	25	
50	70	10	21726	16	9.8	16	10.5	20	75	4.52	25	
		12	21727				13	26		4.47	25	
70	95	10	21731	18	11.2	18.5	10.5	26	85	7.10	10	
		12	21732				13			6.63	10	
95	120	12	21737	22	13.2	23	13	26	85	11.21	10	
		16	21738				17	30	88	10.58	10	
120	150	12	21741	22	14.7	23	13	26	87	11.66	10	
		16	21742				17	30	90	11.49	10	
150	185	12	21746	25	16.3	25.5	13	30	100	15.61	5	
		16	21747				17			15.43	5	
185	240	12	21750	28	18.3	28.5	13	30	101	21.64	5	
		16	21751				17	36	104	20.99	5	
240	300	12	21755	32	21.5	32.5	13	30	112	17.90	5	
		16	21756				17	36	115	22.48	5	

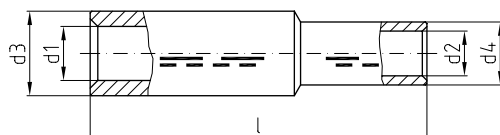
*rm = round stranded
sm = sector stranded

**se = sector solid (Sector solid shaped conductors
must be rounded with dies for round-forming)

Bi-metallic tubular compression connectors 25 – 240 mm², for aluminium conductors DIN 48201

Material: Al 99.5 and Cu-ETP according to DIN EN 13601, Surface: uncoated

Al-sleeves are prefilled with compound!



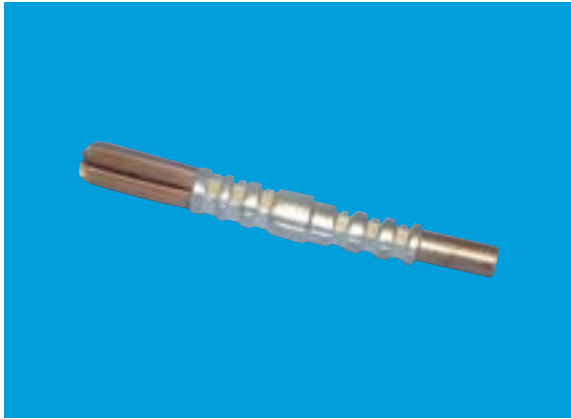
cross section mm ²		art.-no.	die code no.		dimensions in mm					weight 100 pcs. approx. kg	packing. unit pcs.	tool recommendation
Al rm/sm	Cu rm/sm		Al	Cu	d ₁	d ₃	d ₂	d ₄	l			
25	16	21810	12	8	6.8	12	5.5	8.5	61	1.70	25	
35	16	21814	14	8	8	14	5.5	8.5	71	2.77	25	
35	25	21816	14	10	8	14	7	10	71	2.69	25	
50	25	21820	16	10	9.8	16	7	10	71.5	2.72	25	
50	35	21822	16	12	9.8	16	8.2	12.2	71.5	3.46	25	
70	25	21826	18	10	11.2	18.5	7	10	79	4.50	10	
70	35	21828	18	12	11.2	18.5	8.2	12.2	79	5.26	10	
70	50	21830	18	14	11.2	18.5	10	14.5	85	5.72	10	
95	35	21834	22	12	13.2	23	8.2	12.2	79	6.68	10	
95	50	21836	22	14	13.2	23	10	14.5	85	7.16	10	
95	70	21838	22	16	13.2	23	11.5	16.5	87	8.52	10	
120	50	21842	22	14	14.7	23	10	14.5	87	7.93	10	
120	70	21844	22	16	14.7	23	11.5	16.5	89	8.87	10	
120	95	21846	22	18	14.7	23	13.5	19	97	10.38	10	
150	95	21852	25	18	16.3	25.5	13.5	19	107.5	12.94	5	
150	120	21854	25	20	16.3	25.5	15.5	21	107.5	13.46	5	
185	120	21860	28	20	18.3	28.5	15.5	21	108	13.50	5	
185	150	21862	28	22	18.3	28.5	17	23.5	113	18.67	5	
240	150	21866	32	22	21	32.5	17	23.5	124	24.07	5	
240	185	21868	32	25	21	32.5	19	25.5	127	24.30	5	

MP 2 page 121, MHP 10/400 page 124, AP 30 + HP 30 page 134, HPW 17 page 135

AP 20 + HP 20 page 131

DW 6/70 page 114

Connection systems for special applications



For connecting massive conductors to several massive flat-copper-conductors securely we supply connectors and the referring crimping-systems especially designed for your field of application.

Before delivery we examine and document the quality of each connection carefully.

We produce round-forming tools for rounding or reforming one or several flat-copper-conductors which are especially designed for your needs.



Cross- or T-connectors with various pipe tees for connecting different types of conductors as well as thereon adjusted crimping tools are designed on customers request.

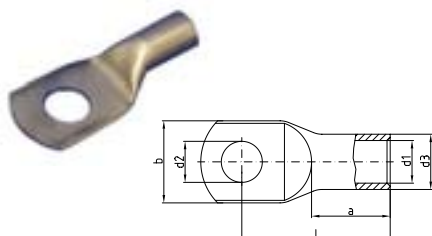
Tubular cable lugs, high grade nickel
Tubular connectors, high grade nickel

Tubular cable lugs and connectors 0.5 – 16 mm²

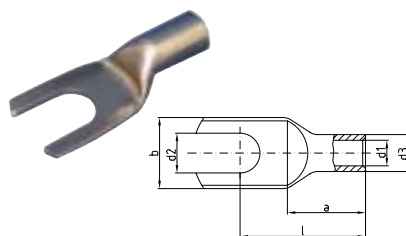
Material: high grade nickel

Heat resistance up to 500 °C

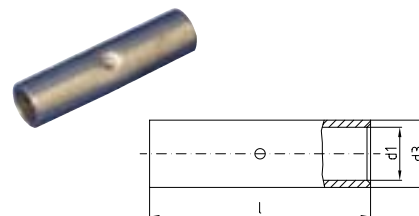
ring type



fork type



butt-connectors



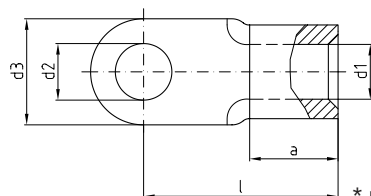
cross section mm ²	flat hole diameter M	art.-no.	dimensions in mm						weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
			d ₁	d ₃	d ₂	b	l	a			
ring type 0.5 – 1	3	12000	1.6	3.2	3.2	6.5	12.5	6	0.073	100	WZ 17 page 96 WZ 18 page 96
	4	12001			4.3	6.5	13.5		0.084	100	
	5	12002			5.3	7.5	14.5		0.090	100	
1.5 – 2.5	4	12010	2.3	3.9	4.3	7	14	6	0.114	100	
	5	12011			5.3	8.5	15.5		0.123	100	
	6	12012			6.4	9.5	17		0.133	100	
4 – 6	4	12015	3.6	5.6	4.3	9.4	18	8	0.256	100	
	5	12016			5.3	10	18.5		0.264	100	
	6	12017			6.4	10.5	19.5		0.290	100	
	8	12018			8.4	12.5	22		0.319	100	
10	5	12205	4.5	6.5	5.3	10.8	20.5	10	0.340	100	
	6	12206			6.4	11.5	22.5		0.370	100	
	8	12207			8.4	13.3	25		0.410	100	
16	5	12210	5.5	7.5	5.3	12.8	22.5	11	0.440	100	
	6	12211			6.4	13.6	24.5		0.480	100	
	8	12212			8.4	15.7	26.5		0.530	100	
fork type 0.5 – 1	4	12101	1.6	3.2	4.3	6.5	13.5	6	0.068	100	WZ 17 page 96 WZ 18 page 96
	5	12102			5.3	7.5	14.5		0.072	100	
1.5 – 2.5	4	12110	2.3	3.9	4.3	7	14	6	0.099	100	
	5	12111			5.3	8.5	15.5		0.108	100	
	6	12112			6.4	9.5	17		0.116	100	
4 – 6	4	12115	3.6	5.6	4.3	9.4	18	8	0.231	100	
	5	12116			5.3	10	18.5		0.242	100	
	6	12117			6.4	10.5	19.5		0.242	100	
	8	12118			8.4	13	21.5		0.298	100	
10	5	12076	4.5	6.5	5.3	10.8	20.5	10	0.340	100	
	6	12077			6.4	11.5	22.5		0.370	100	
	8	12078			8.4	13.3	25		0.420	100	
16	5	12081	5.5	7.5	5.3	12.8	22.5	11	0.440	100	
	6	12082			6.4	13.6	24.5		0.480	100	
	8	12083			8.4	15.7	26.5		0.540	100	
butt-connectors											
0.5 – 1	–	12450	1.6	3.2	–	–	15	–	0.082	100	WZ 17 p. 96 WZ 18 p. 96
1.5 – 2.5	–	12454	2.3	3.9	–	–	15	–	0.104	100	
4 – 6	–	12458	3.6	5.6	–	–	15	–	0.192	100	
10	–	12460	4.5	6.5	–	–	25	–	0.380	100	
16	–	12462	5.5	7.5	–	–	30	–	0.540	100	

Noninsulated ring- and fork-terminals, copper
Noninsulated pin-terminals, copper
Noninsulated parallel- and butt-connectors, copper
Assortment boxes with noninsulated terminals

Noninsulated terminals with brazed seam 0.1 – 6 mm², ring-type, DIN 46234

Material: Cu-HCP

Surface: tin plated, S = small palm



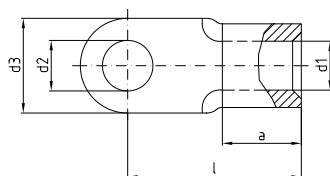
* not standardized, dimensions similar to DIN 46234

cross section mm ²	flat hole diameter M	art.-no.	dimensions in mm					weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
			d ₁	d ₂	d ₃	l	a			
0.1 – 0.5	2	41001	1.0	2.2	5	10	4	0.023	100	WZ 5 p. 96 WZ 20 page 97
	3	41003		3.2	5	10		0.025	100	
	4	41005		4.3	6.5	12		0.026	100	
	5	41006		5.3	8	11		0.028	100	
0.5 – 1	2*	41010	1.6	2.2	6	11	5	0.055	100	WZ 17 page 96, WZ 12 page 94, WZ 1 page 96 WZ 18 page 96
	2.5	41011		2.7	6	11		0.054	100	
	3	41012		3.2	6	11		0.058	100	
	3.5	41013		3.7	6	11		0.053	100	
	4/S*	41014		4.3	7	11		0.055	100	
	4	41015		4.3	8	12		0.068	100	
	5/S*	41016		5.3	8	12		0.063	100	
	5	41017		5.3	10	13		0.085	100	
	6*	41018		6.5	10	13		0.075	100	
	8*	41019		8.4	12	17		0.100	100	
	10*	41009		10.5	14	17		0.097	100	
1.5 – 2.5	3	41020	2.3	3.2	6	11	5	0.064	100	MP 13 p. 116
	3.5	41021		3.7	6	11		0.064	100	
	4/S*	41022		4.3	6.8	11		0.063	100	
	4	41023		4.3	8	12		0.078	100	
	5/S*	41024		5.3	8	12		0.072	100	
	5	41025		5.3	10	14		0.099	100	
	6	41026		6.5	11	16		0.123	100	
	8	41027		8.4	14	17		0.135	100	
	10*	41028		10.5	18	20		0.198	100	
	12*	41029		13	18	20		0.171	100	
4 – 6	4	41030	3.6	4.3	8	14	6	0.139	100	MP 13 p. 116
	5	41031		5.3	10	15		0.156	100	
	6	41032		6.5	11	16		0.163	100	
	8	41033		8.4	14	19		0.212	100	
	10	41034		10.5	18	21		0.267	100	
	12*	41035		13	18	21		0.231	100	

Noninsulated terminals with brazed seam 10 – 70 mm², ring-type, DIN 46 234

Material: Cu-HCP

Surface: tin plated



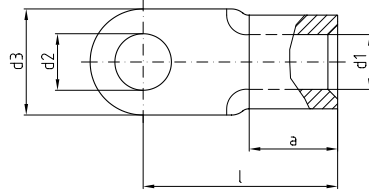
* not standardized

cross section mm ²	flat hole diameter M	art.-no.	dimensions in mm					weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation			
			d ₁	d ₂	d ₃	l	a						
10	4*	41039	4.5	4.3	10	16	8	0.226	100	DP 6/95 page 112, MP 1 page 119, AP 10 + HP 10 page 128	AP 20 + HP 20 page 131, AP 30 + HP 30 page 134, HPW 17 page 135	MP 13 page 116	WZ 18 page 96
	5	41040		5.3	10	16		0.224	100				
	6	41041		6.5	11	17		0.240	100				
	8	41042		8.4	14	20		0.292	100				
	10	41043		10.5	18	21		0.346	100				
	12	41044		13	22	23		0.408	100				
16	5	41045	5.8	5.3	11	20	10	0.397	100				
	6	41046		6.5	11	20		0.368	100				
	8	41047		8.4	14	22		0.422	100				
	10	41048		10.5	18	24		0.499	100				
	12	41049		13	22	26		0.589	100				
25	5	41050	7.5	5.3	12	25	11	0.708	50				
	6	41051		6.5	12	25		0.688	50				
	8	41052		8.4	16	25		0.754	50				
	10	41053		10.5	18	26		0.781	50				
	12	41054		13	22	31		0.968	50				
	16	41096		17	28	35		1.196	50				
35	6	41055	9	6.5	15	26	12	0.966	50				
	8	41056		8.4	16	26		0.970	50				
	10	41057		10.5	18	27		1.002	50				
	12	41058		13	22	31		1.143	50				
	16	41059		17	28	36		1.409	50				
	20*	41098		21	30	37.5	14	1.672	50				
50	6	41097	11	6.5	18	34	16	1.752	50				
	8	41060		8.4	18	34		1.702	50				
	10	41061		10.5	18	34		1.646	50				
	12	41062		13	22	36		1.797	50				
	16	41063		17	28	40		2.006	50				
	20*	41099		21	32	41.2	18	2.570	50				
70	6	41064	13	6.5	22	38	18	2.579	50				
	8	41065		8.4	22	38		2.627	50				
	10	41066		10.5	22	38		2.550	50				
	12	41067		13	22	38		2.580	50				
	16	41068		17	28	42		2.678	50				
	20*	41069		21	32	45	19	3.056	50				

Noninsulated terminals with brazed seam 95 – 240 mm² DIN 46 234

Material: Cu-HCP

Surface: tin plated



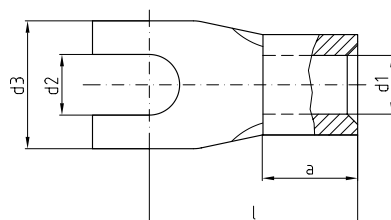
*not standardized

cross section mm ²	flat hole diameter M	art.-no.	dimensions in mm					weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
			d ₁	d ₂	d ₃	l	a			
95	8	41070	15	8.4	24	42	20	4.088	25	AP 30 + HP 30 page 134, HPW 17 page 135 AP 10 + HP 10 p. 128, AP 20 + HP 20 p. 131 DP 6/95 page 112
	10	41071		10.5	24	42		4.038	25	
	12	41072		13	24	42		3.922	25	
	16	41073		17	28	44		3.936	25	
	20*	41074		21	32	51.8		4.252	25	
120	8	41075	16.5	8.4	24	44	22	5.628	25	
	10	41076		10.5	24	44		5.556	25	
	12	41077		13	24	44		5.330	25	
	16	41078		17	28	48		5.666	25	
	20*	41079		21	32	53	21	5.597	25	
150	10	41081	19	10.5	30	50	24	8.015	25	
	12	41082		13	30	50		7.824	25	
	16	41083		17	30	50		7.345	25	
	20*	41084		21	36	63	27	7.345	25	
185	10	41086	21	10.5	36	50	28	10.045	25	
	12	41087		13	36	50		10.776	25	
	16	41088		17	36	50		10.165	25	
	20*	41089		21	36	50		10.165	25	
240	10	41091	23.5	10.5	38	56	32	15.010	25	
	12	41092		13	38	56		14.975	25	
	16	41093		17	38	56		14.525	25	

Noninsulated terminals with brazed seam 0.5 – 16 mm², fork-type

Material: Cu-HCP (0.5 – 10 mm²) resp. Cu-DLP (16 mm²)

Surface: tin plated, S = small palm

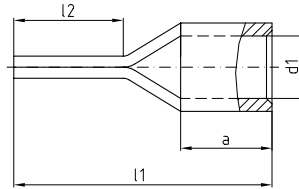


cross section mm ²	flat hole diameter M	art.-no.	dimensions in mm					weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
			d ₁	d ₂	d ₃	l	a			
0.5 – 1	C 3	41112	1.6	3.2	6	11	5	0.057	100	WZ 17 page 96, WZ 20 page 97, WZ 12 page 94, WZ 1 page 96
	C 3.5	41113		3.7	6	11		0.050	100	
	C 4/S	41114		4.3	7	12		0.056	100	
	C 4	41115		4.3	8	12		0.068	100	
	C 5	41117		5.3	10	13		0.084	100	
	C 6	41118		6.5	12	17		0.091	100	
1.5 – 2.5	C 3	41120	2.3	3.2	6	11	5	0.071	100	WZ 18 page 96
	C 3.5	41121		3.7	6.8	11		0.065	100	
	C 4/S	41122		4.3	6.8	11		0.064	100	
	C 4	41123		4.3	8	12		0.079	100	
	C 5	41125		5.3	10	14		0.098	100	
	C 6	41126		6.5	11	16		0.119	100	
4 – 6	C 4	41130	3.6	4.3	8	14	6	0.138	100	MP 13 page 116, HP 10 page 128
	C 5	41131		5.3	10	15		0.158	100	
	C 6	41132		6.5	11	16		0.166	100	
	C 8	41133		8.4	14	19		0.249	100	
10	C 5	41140	4.5	5.3	10	16	8	0.227	100	
	C 6	41141		6.5	11	17		0.240	100	
16	C 6	41146	5.8	6.5	11	20	10	0.493	50	
	C 8	41147		8.4	14	22		0.498	50	

Noninsulated pin-terminals with brazed seam 0.1 – 95 mm² DIN 46230

Material: Cu-HCP (0.1 – 6 mm²) resp. Cu-DLP (10 – 95 mm²)

Surface: tin plated



*not standardized

cross section mm ²	art.-no.	dimensions in mm					weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
		d ₁	l ₁	l ₂	a	pin-Ø			
0.1 – 0.5	41301	1.0	14	9	4	1.2	0.025	100	WZ 20 page 97
0.5 – 1	41302	1.6	17	10	5	1.9	0.064	100	
1.5 – 2.5	41304	2.3	17	10	5	1.9	0.074	100	
	41305*		22	15			0.086	100	
4 – 6	41306	3.6	20	11	6	2.6	0.152	100	
10	41308	4.5	22	12	8	2.3 x 4.2	0.248	100	
16	41310	5.8	26	13	10	2.5 x 5.6	0.427	100	WZ 18 page 96
25	41312*	7.0	34.1	16	14	2.5 x 6.9	0.676	50	
35	41314*	8.4	41	20	16	3.2 x 8.1	1.203	50	
50	41316*	9.5	45.7	21	19	3.7 x 9.5	1.876	50	
70	41318*	11.2	55	24	24	4 x 11	3.010	50	
95	41320*	13.5	55.5	22	24	5.1 x 12.3	4.268	25	

WZ 5

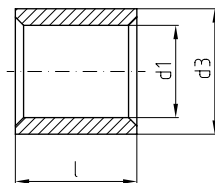
WZ 18 page 96

DP 6/95 page 112, MP 2 page 121

AP 10 + HP 10 p. 128, AP 20 + HP 20 p. 131, HPW 15 p. 135

Noninsulated parallel-connectors 0.1 – 150 mm² form A, DIN 46341 part 1

Material: Cu-HCP
 Surface: tin plated

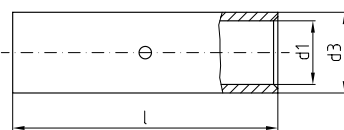


*not standardized

cross section mm ²	art.-no.	dimensions in mm			weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
		l	d ₁	d ₃			
0.1 – 0.5*	41400	5	1.2	2	0.012	100	DP 6/95 p. 112 WZ 20 p. 97 WZ 17 p. 96 WZ 18 p. 96 AP 10 + HP 10 p. 128 AP 30 + HP 30 p. 134
0.5 – 1	41401	7	1.6	3.3	0.042	100	
1.5 – 2.5	41404	7	2.3	4	0.053	100	
4 – 6	41408	7	3.6	5.7	0.088	100	
10	41410	9	4.6	6.8	0.164	100	
16	41412	10	5.9	8.3	0.244	100	
25	41414	14	7.7	10.7	0.508	100	
35	41416	16	9.2	12.4	0.740	100	
50	41418	19	11.2	14.8	1.256	100	
70	41420	19	13.5	17.5	1.656	100	
95	41422	20	15	20	2.443	50	
120	41424	22	16.7	22.7	3.770	50	
150	41426	26	19	25.5	5.024	50	

Noninsulated butt-connectors 0.1 – 150 mm² form B, DIN 46341 part 1

Material: Cu-HCP
 Surface: tin plated



*not standardized

cross section mm ²	art.-no.	dimensions in mm			weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
		l	d ₁	d ₃			
0.1 – 0.5*	41450	12	1.2	2	0.024	100	DP 6/95 p. 112 WZ 20 p. 97 WZ 17 p. 96 WZ 18 p. 96 AP 10 + HP 10 p. 128 AP 30 + HP 30 p. 134
0.5 – 1	41451	15	1.6	3.3	0.086	100	
1.5 – 2.5	41454	15	2.3	4	0.106	100	
4 – 6	41458	15	3.6	5.7	0.179	100	
10	41460	20	4.6	6.8	0.362	100	
16	41462	26	5.9	8.3	0.606	100	
25	41464	29	7.7	10.7	1.133	100	
35	41466	32	9.2	12.4	1.545	100	
50	41468	38	11.2	14.8	2.444	100	
70	41470	42	13.5	17.5	3.730	50	
95	41472	48	15	20	6.080	50	
120	41474	52	16.7	22.7	8.668	50	
150	41476	56	19	25.5	11.250	50	

Assortment boxes with noninsulated cable lugs and connectors



Special filling
on request!

Assortment box out of varnished steel, with 12 small compartments and 1 tool-compartment. An inlay out of foam material prevents the content from mixing up.
Measurements: 350 x 160 x 35 mm

Contents:

200 pcs.	ring-terminals	3 – 1	no. 41012
300 pcs.	ring-terminals	4 – 1	no. 41015
200 pcs.	ring-terminals	5 – 1	no. 41017
300 pcs.	ring-terminals	4 – 2.5	no. 41023
200 pcs.	ring-terminals	5 – 2.5	no. 41025
50 pcs.	ring-terminals	5 – 6	no. 41031
100 pcs.	pin-terminals	1	no. 41302
100 pcs.	pin-terminals	2.5	no. 41304
50 pcs.	pin-terminals	6	no. 41306
50 pcs.	butt-connectors	1	no. 41451
50 pcs.	butt-connectors	2.5	no. 41454
25 pcs.	butt-connectors	6	no. 41458

art.-no.: 90848 without tool

Assortment box **without** contents

art.-no.: 90821



Special filling
on request!

Assortment box out of varnished steel, with 7 small compartments and 1 tool-compartment for meter wiring.
Measurements: 350 x 160 x 35 mm

Inhalt:

100 pcs.	cord-end-sleeves	10 – 18	no. 51434
50 pcs.	cord-end-sleeves	16 – 18	no. 51438
50 pcs.	fork-terminals	5 – 10	no. 41140
50 pcs.	fork-terminals	6 – 10	no. 41141
25 pcs.	fork-terminals	6 – 16	no. 41146
25 pcs.	fork-terminals	8 – 16	no. 41147
1 pcs.	crimping tool WZ 18		no. 90718
1 pcs.	crimping tool AZ 6		no. 90806

art.-no.: 90849

Assortment box **without** contents

art.-no.: 90823

Insulated ring-, fork- and pin-terminals Insulated connectors Male and female disconnectors, insulated and noninsulated Assortment boxes

Quality advantages:

Brazed seam:

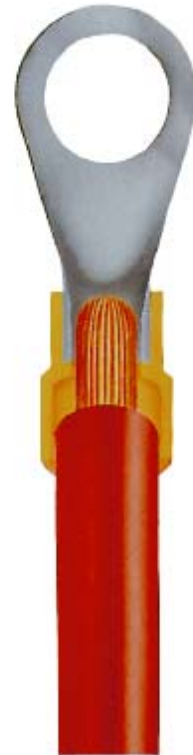
The seam of **WEITKOWITZ** ring-, fork- and pin-terminals is hard-soldered. This guarantees a defined deformation during crimping and a really good electric and mechanical connection.

Injected insulation sleeve

WEITKOWITZ ring-, fork- and pin-terminals have an injected easy-entry insulation sleeve that chamfers on the inside funnel shaped to the edge of the cable lug.

Advantages for **you**:

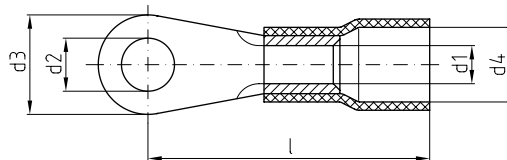
- During crimping no white lines occur. Even after extreme deformation the colour of insulation does not change. Therefore the crimped cable lugs give an excellent and clean optical impression.
- Due to the easy-entry insulation cables with a thicker insulation can be inserted without any problems. And what is more our products can be crimped with any common tool that is suitable for insulated terminals.
- Furthermore the easy-entry insulation prevents wire turn-backs. Therefore you can work easier, faster and safer.



Insulated terminals with soldered seam and easy-entry insulation 0.1 – 6 mm² DIN 46 237

Material: Cu-DLP, Insulation: PC (resp. *Nylon)

Surface: tin plated, S = small palm

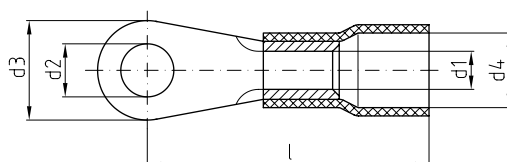


cross section mm ²	flat hole diameter M	art.-no.	colour of insu- lation	dimensions in mm					weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
				d ₁	d ₄	d ₂	d ₃	l			
0.1 – 0.5	2	42001*	yellow	1.0	2.3	2.2	5	14	0.023	100	WZ 5 page 96
	3	42003*				3.2	5	14	0.025	100	
	4	42005*				4.3	6.5	16	0.026	100	
	5	42006*				5.3	8	16	0.028	100	
0.5 – 1	2	42010	red	1.6	4.0	2.2	6	17	0.055	100	WZ 12 page 94, WZ 1 page 96
	2.5	42011				2.7	6	17	0.054	100	
	3	42012				3.2	6	17	0.058	100	
	3.5	42013				3.7	6	17	0.053	100	
	4 S	42014				4.3	7	17.5	0.055	100	
	4	42015				4.3	8	18	0.068	100	
	5 S	42016				5.3	8	18.5	0.063	100	
	5	42017				5.3	10	19	0.085	100	
	6	42018				6.5	10	19	0.075	100	
	8	42019				8.4	14	23	0.100	100	
	10	42009				10.5	18	25	0.097	100	
1.5 – 2.5	3	42020	blue	2.3	4.4	3.2	6	17	0.064	100	WZ 9 page 98, WZ 24 page 99, WZ 23 page 99
	3.5	42021				3.7	6	17	0.064	100	
	4 S	42022				4.3	6.8	17.6	0.063	100	
	4	42023				4.3	8	18	0.078	100	
	5 S	42024				5.3	8	19.5	0.072	100	
	5	42025				5.3	10	20	0.099	100	
	6	42026				6.5	11	22	0.123	100	
	8	42027				8.4	14	23	0.135	100	
	10	42028				10.5	18	25.6	0.198	100	
	12	42029				13	18	26	0.171	100	
4 – 6	4	42030	yellow	3.6	6.4	4.3	8	21	0.139	100	
	5	42031				5.3	10	22	0.156	100	
	6	42032				6.5	11	23	0.163	100	
	8	42033				8.4	14	26	0.212	100	
	10	42034				10.5	18	28	0.267	100	
	12	42035				13	18	28	0.231	100	

Insulated terminals with soldered seam and easy-entry insulation 10 – 50 mm²

Material: Cu-DLP, Insulation: Nylon

Surface: tin plated

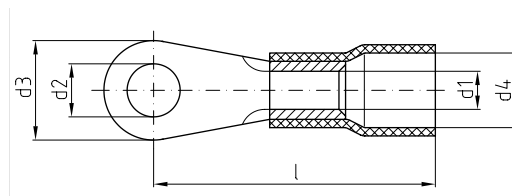


cross section mm ²	flat hole diameter M	art.-no.	colour of insu- lation	dimensions in mm					weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
				d ₁	d ₄	d ₂	d ₃	l			
10	5	42040	red	4.5	8	5.3	10	24.5	0.224	50	WZ 28 page 99, WZ 12 page 94 MP 13 page 116 MP 1 page 118, AP 10 + HP 10 page 128, AP 20 + HP 20 page 131 MP 2 page 121, AP 30 + HP 30 page 134, HPW 17 page 135
	6	42041				6.5	11	25.5	0.240	50	
	8	42042				8.4	14	28.5	0.292	50	
	10	42043				10.5	18	29.5	0.346	50	
16	5	42045	blue	5.8	10.5	5.3	11	31.5	0.397	50	
	6	42046				6.5	11	31.5	0.368	50	
	8	42047				8.4	14	33.5	0.422	50	
	10	42048				10.5	18	35.5	0.499	50	
25	5	42050	yellow	7.5	13	5.3	12	38	0.708	50	
	6	42051				6.5	12	38	0.688	50	
	8	42052				8.4	16	38	0.755	50	
	10	42053				10.5	18	39	0.781	50	
	12	42054				13	22	44	0.968	50	
35	6	42055	red	9	14.5	6.5	15	41	0.966	50	
	8	42056				8.4	16	41	0.970	50	
	10	42057				10.5	18	42	1.002	50	
	12	42058				13	22	46	1.143	50	
50	6	42097	blue	11	16.5	6.5	18	47.5	1.752	50	
	8	42060				8.4	18	47.5	1.702	50	
	10	42061				10.5	18	47.5	1.646	50	
	12	42062				13	22	49.5	1.797	50	

Insulated terminals with soldered seam and easy-entry insulation 70 – 150 mm²

Material: Cu-DLP, Insulation: Nylon

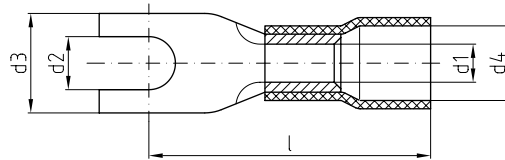
Surface: tin plated



cross section mm ²	flat hole diameter M	art.-no.	colour of insu- lation	dimensions in mm					weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
				d ₁	d ₄	d ₂	d ₃	l			
70	6	42064	yellow	13	18.7	6.5	22	51	2.579	50	MP 1 p. 118, AP 10 + HP 10 p. 128 AP 20 + HP 20 page 131 MP 2 page 121 AP 30 + HP 30 page 134, HPW 17 page 135
	8	42065				8.4	22	51	2.627	50	
	10	42066				10.5	22	51	2.550	50	
	12	42067				13	22	51	2.580	50	
	16	42068				17	28	55	2.678	50	
95	8	42070	red	15	21.7	8.4	24	57.5	4.088	50	
	10	42071				10.5	24	57.5	4.038	50	
	12	42072				13	24	57.5	3.922	50	
	16	42073				17	28	59.5	3.936	50	
120	8	42075	blue	16.5	24.2	8.4	24	62	5.628	25	
	10	42076				10.5	24	62	5.556	25	
	12	42077				13	24	62	5.330	25	
	16	42078				17	28	66	5.666	25	
150	10	42081	yellow	19	27.2	10.5	30	70	8.015	25	
	12	42082				13	30	70	7.824	25	
	16	42083				17	30	70	7.345	25	

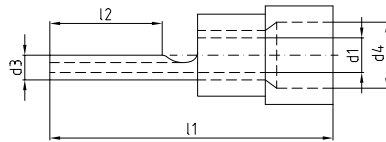
Material: Cu-DLP, Insulation: PC (resp. * Nylon)

Surface: tin plated, S = small palm

WZ 12 page 94

Insulated pin-terminals with soldered seam 0.1 – 35 mm² DIN 46231

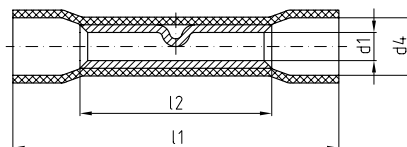
Material: Cu-HCP (0.1 – 0.5 mm²) resp. Cu-DLP (0.5 – 35 mm²), easy-entry-insulation: PC (resp. * Nylon)
Surface: tin plated



cross section mm ²	art.-no.	colour of insulation	dimensions in mm					weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation			
			d ₁	d ₄	d ₃	l ₁	l ₂						
0.1 – 0.5	42301*	yellow	1.0	2.2	1.2	18	9	0.025	100	WZ 5 page 96			
0.5 – 1	42302	red	1.7	4.0	1.9	22.8	11	0.064	100	WZ 9 p. 98	WZ 12 p. 94	WZ 24 p. 99	WZ 23 p. 99
1.5 – 2.5	42304	blue	2.3	4.5	1.9	22.8	11	0.074	100				
	42305	blue				27	14	0.086	100				
4 – 6	42306	yellow	3.6	6.4	2.8	27	11	0.152	100				
10	42308*	red	4.5	7.8	2.4x4.3	34	12	0.248	50	on request		WZ 28 p. 99	MP 13 p. 116
16	42310*	blue	5.8	9.1	2.5x5.6	40.7	13.5	0.427	50				
25	42312*	yellow	7.0	12.4	2.5x6.9	44	16	0.676	50				
35	42314*	red	8.4	14	3.2x8.1	52.5	20	1.203	50				

Insulated butt-connectors 0.1 – 6 mm² with easy-entry insulation

Material: Cu-HCP (0.1 – 0.5 mm²) resp. Cu-DLP (0.5 – 6 mm²), Insulation: PC (resp. * Nylon)
Surface: tin plated

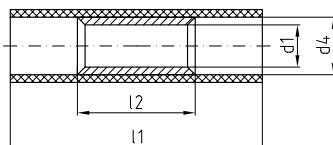
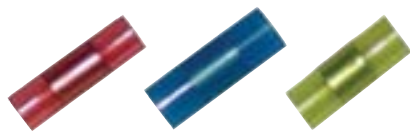


cross section mm ²	art.-no.	colour of insulation	dimensions in mm				weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
			d ₁	d ₄	l ₂	l ₁			
0.1 – 0.5	42450*	yellow	1.2	2.0	12	20	0.035	100	WZ 5 page 96
0.5 – 1	42451	red	1.6	4.1	15	25	0.121	100	WZ 1 page 96
1.5 – 2.5	42454	blue	2.3	4.5	15	26	0.160	100	WZ 12 page 94
									WZ 9 page 98
4 – 6	42458	yellow	3.6	6.4	15	27	0.253	100	WZ 23 page 99
									WZ 24 page 99

Insulated parallel-connectors 0.1 – 6 mm²

Material: Cu-HCP, Insulation: Nylon

Surface: tin plated



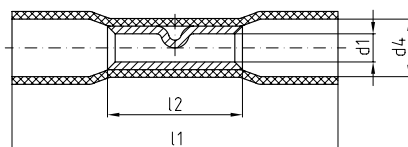
cross section mm ²	art.-no.	colour of insulation	dimensions in mm				weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
			d ₁	d ₄	l ₂	l ₁			
0.1 – 0.5	42400	yellow	1.2	2.0	5	12	0.012	100	WZ 5 page 96
0.5 – 1	42401	red	1.7	3.2	7	17	0.042	100	WZ 12 p. 94, WZ 24 p. 99, WZ 23 p. 99, WZ 9 p. 98
1.5 – 2.5	42404	blue	2.3	4.0	7	17	0.053	100	
4 – 6	42408	yellow	3.6	5.4	7	21.2	0.074	100	

Heat shrinkable butt-splice-connectors 0.14 – 6 mm²

Material: Cu-DLP, Surface: tin plated,

Shrink temperature approx. 120 °C

Insulation: 0.14 – 0.5 mm² = polyolefin
 0.5 – 6 mm² = polyethylen

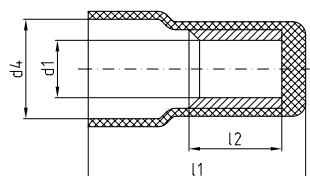


cross section mm ²	art.-no.	colour of insulation	dimensions in mm				weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
			d ₁	d ₄	l ₂	l ₁			
0.14 – 0.5	42430	yellow	1.4	3.1	11.5	24.5	0,036	50	WZ 5 p. 96, WZ 12 p. 94 only: WZ 12 p. 94, WZ 9 p. 98
0.5 – 1	42431	red	1.7	4.4	15	36	0.086	50	
1.5 – 2.5	42434	blue	2.3	5.2	15	36	0.106	50	
4 – 6	42436	yellow	3.6	6.5	15	41	0.172	20	

Insulated closed-end-connectors 1.5 – 10 mm²

Material: Cu-DLP, Insulation: Nylon

Surface: tin plated

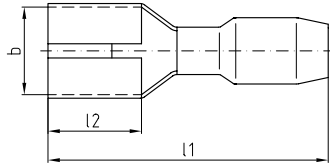


cross section mm ²	art.-no.	colour of insulation	dimensions in mm				weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
			d ₁	d ₄	l ₂	l ₁			
1.5 – 2.5	42484	blue transparent	2.3	6.4	8	15.4	0.050	100	WZ 9 p. 98
4 – 6	42486	yellow transparent	3.4	9.2	8.5	17.7	0.090	100	
10	42488	transparent	5.0	11.8	8	22	0.160	50	WZ 28 p. 99

Female disconnectors 0.1 – 6 mm², with easy-entry copper sleeve

Material: **brass**, Insulation: **PVC** resp. **PC**

Surface: tin plated

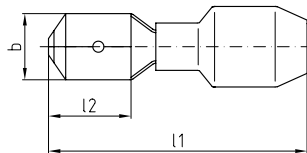


cross section mm ²	art.-no.		colour of insulation	dimensions in mm				weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
	PVC	PC		tab width	tab thickness	l ₁	l ₂			
0.1 – 0.5	44002	–	yellow	2.8	0.5	16	6.4	0.037	100	WZ 5 p. 96 WZ 24 p. 99, WZ 23 p. 99 WZ 9 p. 98
	44003	–		2.8	0.8	16	6.4	0.037	100	
0.5 – 1	44010	44610	red	2.8	0.5	19	6.5	0.075	100	
	44011	44611		2.8	0.8	19	6.5	0.071	100	
	44012	44612		4.8	0.5	19.4	6.4	0.082	100	
	44013	44613		4.8	0.8	19.4	6.4	0.083	100	
	44014	44614		6.3	0.8	20.8	7.5	0.100	100	
	44018	44618	blue	2.8	0.5	19	6.5	0.079	100	
1.5 – 2.5	44019	44619		2.8	0.8	19	6.5	0.078	100	
	44015	44615		4.8	0.5	19.4	6.4	0.091	100	
	44016	44616		4.8	0.8	19.4	6.4	0.092	100	
	44017	44617		6.3	0.8	20.8	7.3	0.111	100	
	44020	44620	yellow	6.3	0.8	23.3	7.3	0.168	100	
4 – 6	44021	44621		9.5	1.2	28.6	12	0.257	100	

Male disconnectors 0.5 – 6 mm², with easy-entry copper sleeve

Material: **brass**, Insulation: **PVC** resp. **PC**

Surface: tin plated

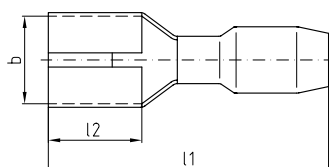


cross section mm ²	art.-no.		colour of insulation	dimensions in mm				weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
	PVC	PC		tab width	tab thickness	l ₁	l ₂			
0.5 – 1	44031	44631	red	2.8	0.8	19.2	6.5	0.071	100	WZ 9 p. 98, WZ 24 p. 99, WZ 23 p. 99
	44033	44633		4.8	0.8	19.8	6.7	0.076	100	
	44034	44634		6.3	0.8	21.8	7.7	0.093	100	
1.5 – 2.5	44039	44639	blue	4.8	0.8	19.8	6.7	0.083	100	
	44035	44635		6.3	0.8	21.8	7.7	0.102	100	
4 – 6	44036	44636	yellow	6.3	0.8	24	7.7	0.171	100	

Female disconnectors 0.5 – 6 mm²

Material: **phos. bronze**, Insulation: nylon

Surface: tin plated

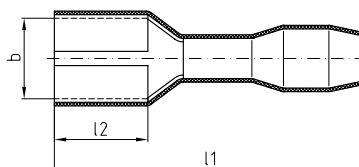


cross section mm ²	art.-no.	colour of insulation	dimensions in mm				weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
			tab width	tab thickness	l ₁	l ₂			
0.5 – 1	44080	red	2.8	0.5	18.4	6.4	0.057	100	on request
	44081		2.8	0.8	18.4	6.4	0.057	100	
	44083		4.8	0.8	19.2	6.0	0.075	100	
	44084		6.3	0.8	21.0	7.8	0.096	100	
1.5 – 2.5	44087	blue	6.3	0.8	22.0	7.8	0.106	100	
4 – 6	44090	yellow	6.3	0.8	23.0	7.8	0.155	100	

Female disconnectors 0.5 – 6 mm², completely insulated

Material: brass, Insulation: PC

Surface: tin plated



cross section mm ²	art.-no.	colour of insulation	tab width	dimensions in mm			weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
				tab thickness	l ₁	l ₂			
0.5 – 1	44040	red	2.8	0.5	19.2	6.4	0.081	100	WZ 24 page 99, WZ 23 page 99
	44041		2.8	0.8	19.2	6.4	0.082	100	
	44042		4.8	0.5	20.2	6.4	0.094	100	
	44043		4.8	0.8	20.2	6.4	0.095	100	
	44044		6.3	0.8	21.5	7.3	0.121	100	
1.5 – 2.5	44045	blue	4.8	0.5	20.2	6.5	0.105	100	
	44046		4.8	0.8	20.2	6.5	0.108	100	
	44047		6.3	0.8	21.5	7.3	0.131	100	
4 – 6	44049	yellow	6.3	0.8	24.2	7.3	0.187	100	

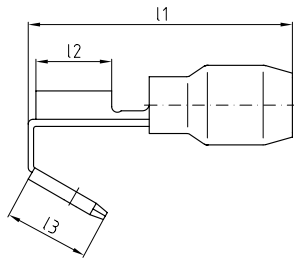
WZ 9 page 98

WZ 24 page 99, WZ 23 page 99

Piggy back disconnectors 0.5 – 2.5 mm²

Material: brass, Insulation: **PVC** resp. **PC**

Surface: tin plated

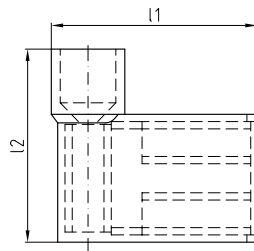
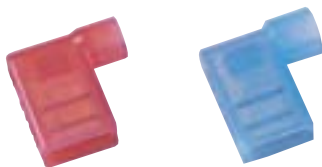


cross section mm ²	art.-no. insulation		colour of insulation	dimensions in mm					weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
	PVC	PC		tab width	tab thickness	l ₁	l ₂	l ₃			
0.5 – 1	44025	44625	red	6.3	0.8	23.9	8.0	8.2	0.146	100	WZ 24 + WZ 23 p. 99 WZ 9 p. 98
1.5 – 2.5	44026	44626	blue	6.3	0.8	23	8.0	8.2	0.154	100	

Flag female disconnectors 0.5 – 2.5 mm², completely insulated

Material: brass, Insulation: Nylon

Surface: tin plated

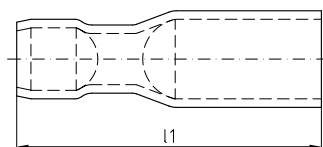


cross section mm ²	art.-no.	colour of insulation	dimensions in mm				weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
			tab width	tab thickness	l ₁	l ₂			
0.5 – 1	44056	red	6.3	0.8	16.0	15	0.126	100	WZ 26 page 98
1.5 – 2.5	44060	blue	6.3	0.8	16.4	15	0.127	100	

Insulated receptacle disconnectors 0.5 – 6 mm²

Material: brass, Insulation: **PVC**

Surface: tin plated

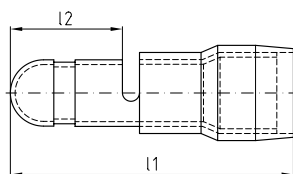


cross section mm ²	art.-no.	colour of insulation	pin-Ø mm	l ₁ mm	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.5 – 1	44510	red	4	23.3	0.125	100	WZ 24 page 99 WZ 23 page 99 WZ 9 page 98
1.5 – 2.5	44512	blue	5	23.3	0.153	100	
4 – 6	44514	yellow	5	25.1	0.227	100	

Insulated bullet disconnectors 0.5 – 6 mm²

Material: brass, Insulation: **PVC** resp. **PC**

Surface: tin plated

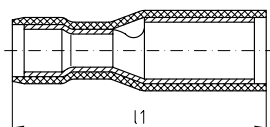


cross section mm ²	art.-no.		colour of insulation	dimensions in mm			weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
	insulation PVC	insulation PC		pin-Ø mm	l ₁	l ₂			
0.5 – 1	44520	44560	red	4	21.5	8.5	0.090	100	WZ 24 page 99 WZ 23 page 99 WZ 9 page 98
1.5 – 2.5	44523	44563	blue	5	21.2	8.5	0.109	100	
4 – 6	44526	44566	yellow	5	24	8.5	0.167	100	

Fully insulated receptacle disconnectors 0.5 – 2.5 mm²

Material: brass, Insulation: Nylon

Surface: tin plated

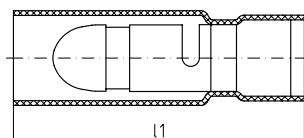


cross section mm ²	art.-no.	colour of insulation	pin-Ø mm	l ₁ mm	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.5 – 1	44516	red	4	25.2	0.118	100	only WZ 9 page 98
1.5 – 2.5	44518	blue	4	25.2	0.128	100	

Fully insulated bullet disconnectors 0.5 – 2.5 mm²

Material: brass, Insulation: Nylon

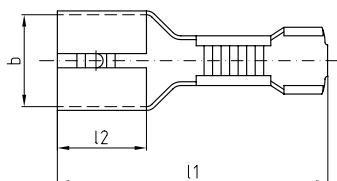
Surface: tin plated



cross section mm ²	art.-no.	colour of insulation	pin-Ø mm	l ₁ mm	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.5 – 1	44528	red	4	27.0	0.130	100	only WZ 9 page 98
1.5 – 2.5	44530	blue	4	27.0	0.142	100	

Noninsulated female open barrel terminals 0.5 – 6 mm², DIN 46247

Material: brass, tin plated resp. steel, nickel plated

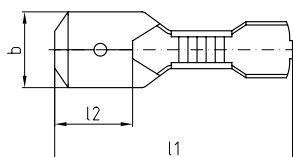


cross section mm ²	art.-no.		dimensions in mm				weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
	brass tin plated	steel nickel plated	tab width	tab thickness	l ₁	l ₂			
0.5 – 1	44110	–	2.8	0.5	14.6	6.2	0.024	100	WZ 12 page 94
	44111	–	2.8	0.8	14.6	6.2	0.023	100	
	44112	–	4.8	0.5	15.6	6.4	0.045	100	
	44113	–	4.8	0.8	15.6	6.4	0.045	100	
	44114	44314	6.3	0.8	19.7	7.7	0.073	100	
1.5 – 2.5	44116	–	4.8	0.8	15.9	6.6	0.051	100	WZ 8 page 97
	44117	44317	6.3	0.8	19.7	7.7	0.086	100	
4 – 6	44120	44320	6.3	0.8	19.8	7.7	0.091	100	tool for FSH out of steel – on request

Noninsulated male open barrel terminals 0.5 – 2.5 mm², DIN 46248

Material: brass

Surface: tin plated

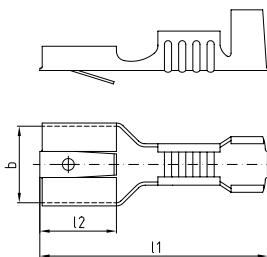


cross section mm ²	art.-no.	tab width	dimensions in mm			weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
			tab thickness	l ₁	l ₂			
0.5 – 1	44134	6.3	0.8	20.5	9.3	0.058	100	WZ 7 page 97
1.5 – 2.5	44135	6.3	0.8	20.7	8	0.066	100	WZ 8 page 97
								WZ 12 page 94

Noninsulated female open barrel terminals 0.5 – 6 mm², DIN 46340

with latch to engage in housings

Material: brass, Surface: tin plated

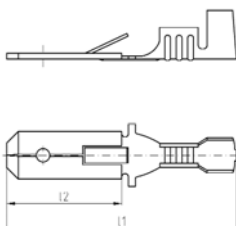


cross section mm ²	art.-no.	tab width	dimensions in mm tab thickness	l ₁	l ₂	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.5 – 1	44214	6.3	0.8	20	7.6	0.067	100	WZ 7 page 97
1.5 – 2.5	44217	6.3	0.8	20	7.6	0.072	100	WZ 8 page 97
4 – 6	44220	6.3	0.8	19.8	7.7	0.086	100	WZ 12 page 94

Noninsulated male open barrel terminals 0.5 – 6 mm², DIN 46343

with latch to engage in housings

Material: brass, Surface: tin plated

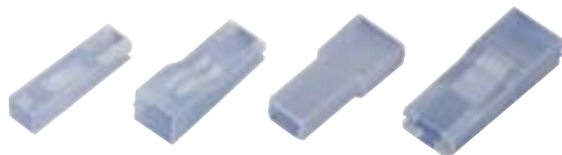


cross section mm ²	art.-no.	tab width	dimensions in mm tab thickness	l ₁	l ₂	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.5 – 1	44234	6.3	0.8	28	15	0.082	100	WZ 7 page 97
1.5 – 2.5	44235	6.3	0.8	28	15	0.088	100	WZ 8 page 97
4 – 6	44236	6.3	0.8	28.7	15.4	0.097	100	WZ 12 page 94

Insulated housings

for noninsulated female open barrel terminals without latch

Color: nature



* frontal insertion for afterwards slide on of the crimped terminal; housing does snap in

art.-no.	for tab width mm	for cross section mm ²	material	weight 100 pcs. approx. kg	packing unit pcs.
44142*	2.8	0.5 – 1	polyamide 6.6	0.024	100
44143*	4.8	0.5 – 2.5	polyamide 6.6	0.032	100
44145	6.3	0.5 – 2.5	polyethylene	0.034	100
44147*	6.3	0.5 – 6	polyamide 6.6	0.052	100

Noninsulated male terminals

Material: brass

Surface: tin plated



art.-no.	type	tab width	dimensions in mm tab thickness	hole Ø	weight 100 pcs. approx. kg	packing unit pcs.
44151	I	6.3	0.8	4.2	0.082	100
44152	II	6.3	0.8	4.2	0.079	100
44157	II	6.3	0.8	5.2	0.079	100
44153	III	6.3	0.8	4.2	0.088	100
44155	V	6.3	0.8	4.3	0.140	100
44158	V	6.3	0.8	6.2	0.153	100
44156	VI	6.3	0.8	4.3	0.137	100
44159	VII	2.8	0.8	–	0.037	100
44160	VII	6.3	0.8	–	0.085	100
44161	VIII	6.3	0.8	–	0.048	100

Noninsulated multi-way-adapters for tab dimensions 6.3 x 0.8 mm

Material: brass

Surface: tin plated

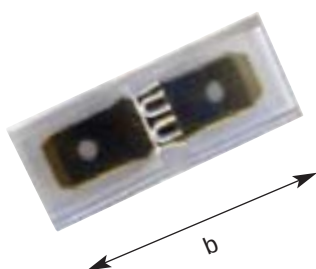


art.-no.	type	cross section mm ²	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
44162	I	0.5 – 1	0.108	100	WZ 8 page 97
44163	I	1.5 – 2.5	0.118	100	
44166	II	–	0.120	100	–
44167	III	–	0.192	100	–

Fully insulated male tabs

1 pole and 12 poles

Material of tabs: brass, Colour of insulation: transparent



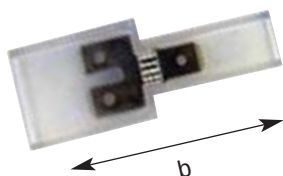
art.-no.	quantity of poles	dimensions in mm			insulation	surface of tab	weight 100 pcs. approx. kg	packing unit pcs.
		tab width	tab thickness	width b				
44064	1	6.3	0.8	27.8	soft-PVC	tin plated	0.248	100
44065	12	6.3	0.8	25.8	soft-PP	tin plated	2.808	10
44067	12	6.3	0.8	42	soft-PVC	uncoated	3.734	10
44068	1	6.3	0.8	50	hard-PA	tin plated	0.263	100
44069	12	6.3	0.8	50	soft-PVC	uncoated	4.480	10

Fully insulated male tabs

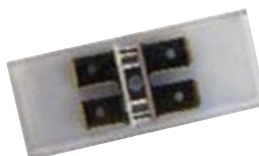
1/2-poles or 2/2-poles

Material of tabs: brass, Colour of insulation: transparent

1/2 poles



2/2 poles



art.-no.	quantity of poles	dimensions in mm			insulation	surface of tab	weight 100 pcs. approx. kg	packing unit pcs.
		tab width	tab thickness	width b				
44071	1/2	6.3	0.8	42	soft-PVC	uncoated	0.513	20
44073	1/2	6.3	0.8	54	soft-PVC	tin plated	0.588	20
44075	2/2	6.3	0.8	50	soft-PVC	tin plated	0.635	20

Assortment boxes

with insulated terminals,
connectors and disconnectors



art.-no.: 90845 like above, but **without** crimping tool
art.-no.: 90825 Assortment box **without** contents

Special filling on request!

Assortment box out of vanished steel,
with 19 small compartments and 1 tool compartment

Measurements: 375 x 235 x 55 mm

contents:

50 pcs.	ring-terminals	4 – 1	no. 42015
50 pcs.	ring-terminals	5 – 1	no. 42017
50 pcs.	ring-terminals	4 – 2.5	no. 42023
50 pcs.	ring-terminals	5 – 2.5	no. 42025
50 pcs.	ring-terminals	6 – 2.5	no. 42026
25 pcs.	ring-terminals	5 – 6	no. 42031
25 pcs.	ring-terminals	6 – 6	no. 42032
50 pcs.	fork-terminals	4 – 1	no. 42114
50 pcs.	fork-terminals	4 – 2.5	no. 42122
25 pcs.	fork-terminals	6 – 6	no. 42132
50 pcs.	pin-terminals	1	no. 42302
50 pcs.	pin-terminals	2.5	no. 42304
25 pcs.	pin-terminals	6	no. 42306
50 pcs.	female disconnectors	6.3 x 1	no. 44014
25 pcs.	piggy-back disconnectors	6.3 x 1	no. 44025
50 pcs.	female disconnectors	6.3 x 2.5	no. 44017
50 pcs.	butt-connectors	1	no. 42451
50 pcs.	butt-connectors	2.5	no. 42454
25 pcs.	butt-connectors	6	no. 42458
1 pcs.	crimping tool	WZ 9	no. 90709

art.-no.: 90844



Assortment box out of vanished steel, with 12 small compart-
ments, 1 tool compartment and an inlay out of foam material

Measurements: 350 x 160 x 35 mm

contents:

100 pcs.	ring-terminals	4 – 1	no. 42015
100 pcs.	ring-terminals	5 – 1	no. 42017
100 pcs.	ring-terminals	4 – 2.5	no. 42023
100 pcs.	ring-terminals	5 – 2.5	no. 42025
50 pcs.	ring-terminals	6 – 2.5	no. 42026
50 pcs.	ring-terminals	6 – 6	no. 42032
50 pcs.	pin-terminals	1	no. 42302
50 pcs.	pin-terminals	2.5	no. 42304
50 pcs.	butt-connectors	1	no. 42451
50 pcs.	butt-connectors	2.5	no. 42454
50 pcs.	female disconnectors	6.3 x 1	no. 44014
50 pcs.	female disconnectors	6.3 x 2.5	no. 44017
1 pcs.	crimping tool	WZ 9	no. 90709

art.-no.: 90852

art.-no.: 90853 like above, but **without** crimping tool

art.-no.: 90821 Assortment box **without** contents



Assortment box out of vanished steel, with 12 small compart-
ments, 1 tool compartment and an inlay out of foam material

Measurements: 350 x 160 x 35 mm

contents:

100 pcs.	female disconnectors	2.8 x 1	no. 44011
100 pcs.	female disconnectors	6.3 x 1	no. 44014
100 pcs.	female disconnectors	6.3 x 2.5	no. 44017
50 pcs.	female disconnectors	6.3 x 6	no. 44020
50 pcs.	piggy-back disconnectors	6.3 x 1	no. 44025
50 pcs.	piggy-back disconnectors	6.3 x 2.5	no. 44026
50 pcs.	male disconnectors	6.3 x 1	no. 44034
50 pcs.	male disconnectors	6.3 x 2.5	no. 44035
20 pcs.	male tabs		no. 44064
50 pcs.	ring-terminals	4 – 1	no. 42015
50 pcs.	ring-terminals	5 – 2.5	no. 42025
50 pcs.	ring-terminals	6 – 6	no. 42032
1 pcs.	crimping tool	WZ 9	no. 90709

art.-no.: 90855

art.-no.: 90856 like above, but **without** crimping tool

art.-no.: 90821 Assortment box **without** contents

Assortment boxes

with insulated terminals,
connectors and disconnectors



Assortment box out of vanished steel,
with 7 small compartments and 1 tool compartment

Measurements: 350 x 160 x 35 mm

contents:

50 pcs.	ring-terminals	4 – 1	no. 42015
50 pcs.	ring-terminals	5 – 2.5	no. 42025
25 pcs.	ring-terminals	6 – 6	no. 42032
50 pcs.	fork-terminals	4 – 1	no. 42114
50 pcs.	fork-terminals	5 – 2.5	no. 42125
50 pcs.	pin-terminals	1	no. 42302
50 pcs.	pin-terminals	2.5	no. 42304
1 pcs.	crimping tool	WZ 9	no. 90709

art.-no.: 90857

Assortment box **without** contents

art.-no.: 90823



Assortment box out of vanished steel, with special products for
meter wiring, with 7 small compartments and 1 tool compart-
ment

Mesurements: 350 x 160 x 35 mm

contents:

50 pcs.	cord-end-sleeves	10 – 18	no. 51368
25 pcs.	cord-end-sleeves	16 – 18	no. 51376
50 pcs.	fork-terminals	5 – 10	no. 42140
50 pcs.	fork-terminals	6 – 10	no. 42141
25 pcs.	fork-terminals	6 – 16	no. 42146
25 pcs.	fork-terminals	8 – 16	no. 42147
1 pcs.	crimping tool	WZ 28	no. 90728
1 pcs.	crimping tool	AZ 6	no. 90806

art.-no.: 90851

Assortment box **without** contents

art.-no.: 90823



Assortment box out of vanished steel,
with noninsulated male and female disconnectors,
with 7 small compartments and 1 tool compartment

Measurements: 350 x 160 x 35 mm

contents:

100 pcs.	female disconnectors	2.8 x 1	no. 44111
100 pcs.	female disconnectors	4.8 x 1	no. 44113
100 pcs.	female disconnectors	6.3 x 1	no. 44114
100 pcs.	female disconnectors	6.3 x 2.5	no. 44117
50 pcs.	female disconnectors	6.3 x 6	no. 44120
50 pcs.	piggy-back disconnectors	6.3 x 1	no. 44162
50 pcs.	piggy-back disconnectors	6.3 x 2.5	no. 44163
1 pcs.	crimping tool	WZ 7	no. 90707

art.-no.: 90846

Assortment box **without** contents

art.-no.: 90823

Special filling on request!

Our service for trading



Small but representative configured packaging units simplify storage and distribution.

On all our labels you find our article number encoded as bar code (EAN 13). Therefore receipt and dispatch of goods are quick and faultless.

ETIM-Catalogue

ETIM is the basis classification model of the electric industry. We provide our ETIM product catalogue in BMEcat as xml-file on CD.

On request you obtain an individual catalogue with your article numbers and price conditions.



A price list on CD simplifies your data maintenance.

We place high quality, illuminated display boards with or without screen at our whole-sale associate partner's disposal, free of cost.

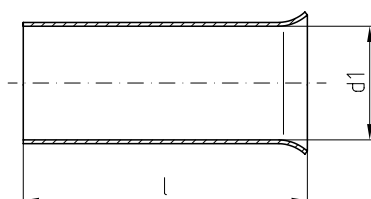


Noninsulated cord-end-sleeves
Insulated cord-end-sleeves
Assortment boxes

Noninsulated cord-end-sleeves 0.25 – 6 mm² DIN 46 228 part 1

Material: Cu-ETP according to DIN EN 13600 resp. Cu-DHP according to DIN EN 12449

Surface: tin plated



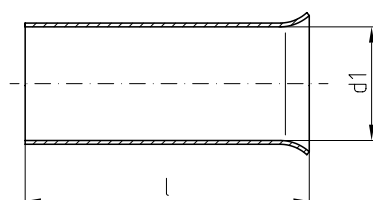
* not standardized

cross section mm²	length (l) mm	art.-no.	d ₁ mm	weight 1000 pcs. approx. kg	packing unit pcs.	tools recommendation			
0.25 – 0.34	5*	51402	0.8	0.024	1000	AZ 4 page 104	AZ 10 page 103	WZ 7 page 102, WZ 8 page 102	AZ 6 page 104, WZ 12 page 94
	7*	51404		0.036	1000				
0.5	6	51410	1.1	0.036	1000				
	8*	51442		0.044	1000				
	10	51411		0.060	1000				
0.75	6	51412	1.25	0.040	1000				
	8*	51443		0.050	1000				
	10	51413		0.061	1000				
	12*	51444		0.077	1000				
	15*	51445		0.107	1000				
1	6	51414	1.5	0.037	1000				
	8*	51446		0.060	1000				
	10	51415		0.078	1000				
	12*	51447		0.087	1000				
	15*	51448		0.106	1000				
1.5	7	51418	1.9	0.065	1000				
	8*	51450		0.072	1000				
	10	51419		0.100	1000				
	12	51420		0.110	1000				
	15*	51449		0.124	500				
	18	51421		0.170	500				
2.5	7	51422	2.3	0.081	1000				
	8*	51456		0.090	1000				
	10	51451		0.113	1000				
	12	51423		0.138	1000				
	15*	51452		0.172	500				
	18	51424		0.223	500				
4	9	51425	2.9	0.153	1000				
	12	51426		0.206	1000				
	15	51427		0.267	500				
	18	51453		0.328	500				
	20*	51454		0.352	500				
6	10	51428	3.7	0.223	500	AZ11 p.103	AZ16 p.102		
	12	51429		0.279	500				
	15	51430		0.339	500				
	18	51431		0.406	500				
	20*	51457		0.464	500				

Noninsulated cord-end-sleeves 10 – 240 mm² DIN 46 228 part 1

Material: Cu-ETP according to DIN EN 13600 resp. Cu-DHP according to DIN EN 12449

Surface: tin plated



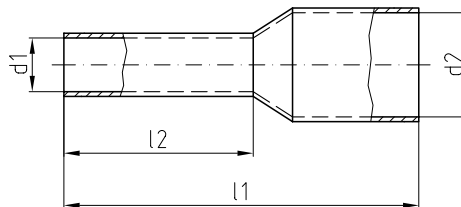
* not standardized

cross section mm ²	length (l) mm	art.-no.	d ₁ mm	weight 1000 pcs. approx. kg	packing unit pcs.	tools recommendation			
10	10*	51458	4.6	0.276	500	AZ 6, AZ 11, AZ 16	MP 13 page 116	MP 2 page 121, AP 10 + HP 10 page 128	AP 30 + HP 30 page 134, HPW 15 page 135, HPW 17 page 135
	12	51432		0.341	500				
	15	51433		0.421	500				
	18	51434		0.537	100				
	20*	51459		0.584	100				
16	12	51436	6.0	0.454	100				
	15	51437		0.559	100				
	18	51438		0.693	100				
	25	51439		0.995	100				
	32	51440		1.112	100				
25	12*	51406	7.5	0.615	100				
	15	51463		0.771	100				
	18	51464		0.776	100				
	22*	51407		1.135	100				
	25	51465		1.254	100				
	32	51462		1.405	100				
35	18	51466	8.5	0.892	100				
	22*	51408		1.097	100				
	25	51467		1.424	100				
	32	51460		1.538	100				
50	18	51468	10.5	1.936	100				
	22*	51409		2.306	100				
	25	51469		2.310	100				
	32	51461		3.016	100				
70	25*	51470	12.7	3.675	100				
	32*	51471		4.842	100				
95	25*	51472	14.7	4.235	100				
	32*	51473		5.844	100				
120	32*	51474	16.7	8.170	100				
	40*	51475		10.105	100				
150	32*	51476	18.7	8.040	100				
	40*	51477		9.935	100				
185	40*	51455	20.2	14.370	100				
240	34*	51502	23.0	13.040	50				
	40*	51504		15.340	50				

Insulated cord-end-sleeves 0.14 – 2.5 mm² * = DIN 46 228 part 4

Material: Cu-DHP according to DIN EN 12449, Insulation: polypropylen

Surface: tin plated



Small packagings with 100 pcs./bag
are available at additional costs!

cross section mm ²	length mm (l ₂)	colour of insu- lation	* art.-no.	colour of insu- lation	art.-no.	colour of insu- lation	art.-no.	dimensions in mm l ₁ d ₁ d ₂			weight 1000 pcs. approx. kg	packing unit pcs.	tools recommendation
0.14	6	–	–	grey	51600	brown	51300	10	0.7	1.6	0.024	500	
	8	–	–		51601		51301	12			0.036	500	
0.25	6	–	–	violet	51602	light blue	51302	10	0.75	1.8	0.024	500	
	8	–	–		51603		51303	12			0.036	500	
0.34	6	–	–	pink	51605	turquoise	51305	10	0.8	2.0	0.024	500	
	8	–	–		51606		51306	12			0.036	500	
0.5	6	white	51311	orange	51611	white	51311	12	1.0	2.6	0.036	500	
	8		51479		51612		51479	14			0.044	500	
	10		51478		51613		51478	16			0.060	500	
0.75	6	grey	51317	white	51616	light blue	–	12	1.2	2.8	0.040	500	
	8		51318		51617		51480	14			0.050	500	
	10		51320		51618		–	16			0.061	500	
	12		51322		51619		51481	18			0.077	500	
1	6	red	51325	yellow	51622	red	51325	12	1.4	3.0	0.037	500	
	8		51482		51623		51482	14			0.060	500	
	10		51328		51624		51328	16			0.078	500	
	12		51483		51625		51483	18			0.087	500	
1.5	8	black	51484	red	51630	black	51484	14	1.7	3.5	0.076	500	
	10		51335		51631		51335	16			0.100	500	
	12		51336		51632		51336	18			0.110	500	
	18		51485		51635		51485	24			0.170	500	
2.5	8	blue	51342	blue	51342	grey	51486	14	2.2	4.2	0.090	500	
	12		51344		51344		–	18			0.138	500	
	18		51346		51346		51487	24			0.223	500	

AZ 8 page 102

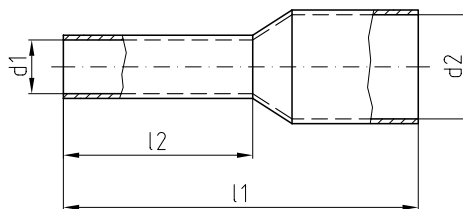
AZ 4 page 104, AZ 7 page 102, AZ 10 page 103

AZ 15 page 104

AZ 14 page 103

Insulated cord-end-sleeves 4 – 150 mm², * = DIN 46 228 part 4

Material: 4 – 35 mm² Cu-DHP according to DIN EN 12449, Insulation: polypropylen
 50 – 150 mm² Cu-DHP, Insulation: nylon Surface: tin plated



Small packagings with 100 pcs./bag
 are available at additional costs!

cross section mm ²	length mm (l ₂)	colour of insu- lation	* art.-no.	colour of insu- lation	art.-no.	colour of insu- lation	art.-no.	dimensions in mm l ₁ d ₁ d ₂			weight 1000 pcs. approx. kg	packing unit pcs.	tools recommendation	
4	10	grey	51348	grey	51348	orange	51488	17	2.8	4.8	0.153	500	AZ 8 p. 102, AZ 14 p. 103	AZ 7 page 102 AZ 11 p. 103, AZ 16 p. 102
	12		51350		51350	–		20			0.206	500		
	18		51352		51352		51489	26			0.328	100		
6	12	yellow	51356	black	51654	green	51490	20	3.5	6.3	0.279	100		
	18		51360		51656		51491	26			0.406	100		
10	12	red	51364	ivory	51660	brown	51492	22	4.5	7.6	0.341	100		
	18		51368		51662		51493	28			0.537	100		
16	12	blue	51372	green	51668	ivory	51494	24	5.8	8.8	0.454	100		
	18		51376		51670		51495	28			0.693	100		
25	16	yellow	51379	brown	51679	black	51496	30	7.3	11.2	0.771	50		
	18		51380	–			51497	32			0.776	50		
	22		51381		51681		51498	36			1.135	50		
35	16	red	51382	beige	51682			30	8.3	12.7	0.793	50		
	18		51383	–				32			0.892	50		
	25		51384		51684			39			1.424	50		
50	20	blue	51387	olive	51687			36	10.3	15.0	2.152	50		
	25		51388	–				41			2.310	50		
70	20			yellow	51689			37	13.5	16.0	2.940	25		
95	25			red	51691			44	14.5	18.0	4.235	25		
120	27			blue	51693			48	16.5	20.0	6.893	25		
150	32			yellow	51695			58	19.5	23.0	8.040	25		

AP 30 + HP 30 page 134, HPW 15 + HPW 17 page 135

AP 10 + HP 10 page 128

AZ10 p.103

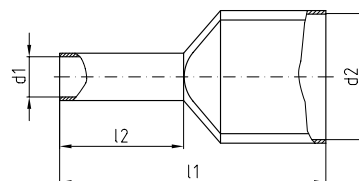
AZ 7 page 102
AZ 11 p. 103, AZ 16 p. 102

AZ 8 p. 102, AZ 14 p. 103

Insulated twin cord-end-sleeves 2 x 0.5 – 2 x 16 mm² with rectangular insulation for two conductors

Material: Cu-DHP according to DIN EN 12449, Surface: tin plated, Insulation: polypropylen

Small packagings with 100 pcs./bag are available at additional costs!

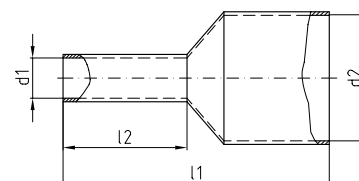


cross section mm ²	length mm (l ₂)	art.-no.	colour of insulation	dimensions in mm			weight 1000 pcs. approx. kg	packing unit pcs.	tools recommendation
				l ₁	d ₁	d ₂			
2 x 0.5	8	51390	white	15	1.5	2.5/4.7	0.080	500	tool recommendation cp. page 160
2 x 0.75	8	51392	grey	15	1.8	2.8/5.0	0.100	500	
	10	51393		17			0.120	500	
2 x 1	8	51394	red	15	2.0	3.4/5.4	0.100	500	
	10	51395		17			0.120	500	
2 x 1.5	8	51396	black	16	2.3	3.6/6.6	0.120	500	
	12	51397		20			0.160	500	
2 x 2.5	10	51398	blue	18.5	2.9	4.2/7.8	0.200	250	
	13	51216		21.5			0.240	250	
2 x 4	12	51399	grey	23	3.8	4.9/8.8	0.360	100	
2 x 6	14	51400	yellow	26	4.9	6.9/10	0.520	100	
2 x 10	14	51401	red	26	6.5	7.2/13	0.700	100	
2 x 16	14	51228	blue	30	8.3	9.6/18.4	0.900	50	

Insulated cord-end-sleeves with large plastic collar 1.5 – 16 mm²

suitable for all short circuit resistant conductors according to VDE 0250 part 602. NSGAFÖU 1,8 kV/3 kV/6kV

Material: Cu-DHP according to DIN EN 12449, Surface: tin plated, Insulation: polypropylen



cross section mm ²	length mm (l ₂)	art.-no.	colour of insulation	dimensions in mm			weight 1000 pcs. approx. kg	packing unit pcs.	tools recommendation
				l ₁	d ₁	d ₂			
1.5	8	51510	black	17.5	1.8	7.5	0.080	100	AZ 4 p. 104 AZ 14 p. 103, AZ 8 p. 102 AZ 15, AZ 10 AZ 11, AZ 16
	10	51511		19.5			0.100	100	
2.5	8	51512	blue	17.5	2.3	8.0	0.080	100	
	12	51513		21.5			0.160	100	
4	10	51514	grey	19.5	2.9	9.5	0.240	100	
6	12	51516	yellow	23.0	3.6	10.0	0.350	100	
10	12	51518	red	24.0	4.6	11.5	0.420	100	
16	12	51520	blue	25.5	6.0	13.5	0.560	100	

Dispenser boxes

Dispenser boxes with insulated cord-end-sleeves



Assortment 1

50 pcs.	0.50 mm ²	no. 51479
100 pcs.	0.75 mm ²	no. 51480
100 pcs.	1.00 mm ²	no. 51482
100 pcs.	1.50 mm ²	no. 51484
50 pcs.	2.50 mm ²	no. 51486

art.-no.: 90881

Assortment 2

50 pcs.	4 mm ²	no. 51488
20 pcs.	6 mm ²	no. 51490
20 pcs.	10 mm ²	no. 51492
10 pcs.	16 mm ²	no. 51494

art.-no.: 90882

Assortment 3 (DIN-colours)

50 pcs.	0.50 mm ²	no. 51479
100 pcs.	0.75 mm ²	no. 51318
100 pcs.	1.00 mm ²	no. 51482
100 pcs.	1.50 mm ²	no. 51484
50 pcs.	2.50 mm ²	no. 51342

art.-no.: 90883

Assortment 4 (DIN-colours)

50 pcs.	4 mm ²	no. 51348
20 pcs.	6 mm ²	no. 51356
20 pcs.	10 mm ²	no. 51364
10 pcs.	16 mm ²	no. 51372

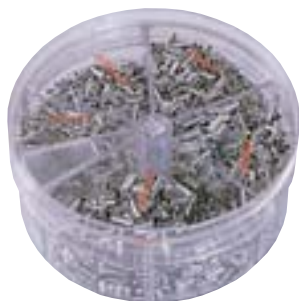
art.-no.: 90884

Assortment 7 with twin cord-end-sleeves

50 pcs.	2 x 0.5	no. 51390
100 pcs.	2 x 0.75	no. 51392
75 pcs.	2 x 1	no. 51394
50 pcs.	2 x 1.5	no. 51396
50 pcs.	2 x 2.5	no. 51398

art.-no.: 90887

Dispenser boxes with noninsulated cord-end-sleeves



Assortment 5

500 pcs.	0.50 mm ²	no. 51410
500 pcs.	0.75 mm ²	no. 51412
500 pcs.	1.00 mm ²	no. 51414
300 pcs.	1.50 mm ²	no. 51418
200 pcs.	2.50 mm ²	no. 51422

art.-no.: 90885

Assortment 6

100 pcs.	4 mm ²	no. 51425
100 pcs.	6 mm ²	no. 51428
50 pcs.	10 mm ²	no. 51434
25 pcs.	16 mm ²	no. 51438

art.-no.: 90886

Dispenser boxes without contents

with 4 compartments

art.-no.: 90879

with 5 compartments

art.-no.: 90880

Special filling on request!

Assortment boxes

with insulated cord-end-sleeves DIN 46228 part 4



Assortment box out of vanished steel, with 6 small compartments, 1 tool compartment and an inlay out of foam material
Measurements: 245 x 160 x 45 mm

Contents:

300 pcs.	0.75 mm ²	no. 51318
300 pcs.	1.00 mm ²	no. 51482
300 pcs.	1.50 mm ²	no. 51484
200 pcs.	2.50 mm ²	no. 51342
200 pcs.	4.00 mm ²	no. 51348
100 pcs.	6.00 mm ²	no. 51356
1 pcs.	crimping tool AZ 6	no. 90806

art.-no.: 90869

art.-no.: 90872 like above, but **without** crimping tool

art.-no.: 90824 assortment box **without** contents



Assortment box out of vanished steel, with 7 small compartments, 1 tool compartment and an inlay out of foam material
Measurements: 350 x 160 x 35 mm

Contents:

300 pcs.	0.75 mm ²	no. 51318
300 pcs.	1.00 mm ²	no. 51482
300 pcs.	1.50 mm ²	no. 51484
200 pcs.	2.50 mm ²	no. 51342
200 pcs.	4.00 mm ²	no. 51348
100 pcs.	6.00 mm ²	no. 51356
50 pcs.	10.00 mm ²	no. 51368
1 pcs.	crimping tool AZ 6	no. 90806

art.-no.: 90854

art.-no.: 90860 like above, but **without** crimping tool

art.-no.: 90823 assortment box **without** contents



Assortment box out of vanished steel, with 12 small compartments, 1 tool compartment and an inlay out of foam material
Measurements: 350 x 160 x 35 mm

Contents:

100 pcs.	0.75 mm ²	no. 51318
100 pcs.	1.00 mm ²	no. 51482
100 pcs.	1.50 mm ²	no. 51484
100 pcs.	1.50 mm ²	no. 51485
100 pcs.	2.50 mm ²	no. 51342
100 pcs.	2.50 mm ²	no. 51346
100 pcs.	4.00 mm ²	no. 51348
50 pcs.	6.00 mm ²	no. 51356
50 pcs.	10.00 mm ²	no. 51364
50 pcs.	10.00 mm ²	no. 51368
30 pcs.	16.00 mm ²	no. 51372
50 pcs.	16.00 mm ²	no. 51376
1 pcs.	crimping tool AZ 6	no. 90806

art.-no.: 90873

art.-no.: 90874 like above, but **without** crimping tool

art.-no.: 90821 assortment box **without** contents

Sonderbestückungen
auf Anfrage!

Assortment boxes

with noninsulated cord-end-sleeves DIN 46 228 part 1



Assortment box out of vanished steel, with 6 small compartments, 1 tool compartment and an inlay out of foam material
Measurements: 245 x 160 x 45 mm

Contents:

1000 pcs.	0.75 mm ²	no. 51412
1000 pcs.	1.00 mm ²	no. 51414
1000 pcs.	1.50 mm ²	no. 51418
500 pcs.	2.50 mm ²	no. 51422
500 pcs.	4.00 mm ²	no. 51425
500 pcs.	6.00 mm ²	no. 51428
1 pcs.	crimping tool AZ 6	no. 90806

art.-no.: 90863

art.-no.: 90866 like above, but **without** crimping tool

art.-no.: 90824 assortment box **without** contents



Assortment box out of vanished steel, with 7 small compartments, 1 tool compartment and an inlay out of foam material
Measurements: 350 x 160 x 35 mm

Contents:

1000 pcs.	0.75 mm ²	no. 51412
1000 pcs.	1.00 mm ²	no. 51414
1000 pcs.	1.50 mm ²	no. 51418
500 pcs.	2.50 mm ²	no. 51422
500 pcs.	4.00 mm ²	no. 51425
500 pcs.	6.00 mm ²	no. 51428
200 pcs.	10.00 mm ²	no. 51434
1 pcs.	crimping tool AZ 6	no. 90806

art.-no.: 90875

art.-no.: 90878 like above, but **without** crimping tool

art.-no.: 90823 assortment box **without** contents



Assortment box out of vanished steel, with 12 small compartments, 1 tool compartment and an inlay out of foam material
Measurements: 350 x 160 x 35 mm

Contents:

1000 pcs.	0.75 mm ²	no. 51412
1000 pcs.	1.00 mm ²	no. 51414
500 pcs.	1.00 mm ²	no. 51415
1000 pcs.	1.50 mm ²	no. 51418
500 pcs.	1.50 mm ²	no. 51420
800 pcs.	2.50 mm ²	no. 51422
400 pcs.	4.00 mm ²	no. 51425
200 pcs.	6.00 mm ²	no. 51428
100 pcs.	10.00 mm ²	no. 51432
100 pcs.	10.00 mm ²	no. 51434
100 pcs.	16.00 mm ²	no. 51436
100 pcs.	16.00 mm ²	no. 51438
1 pcs.	crimping tool AZ 6	no. 90806

art.-no.: 90864

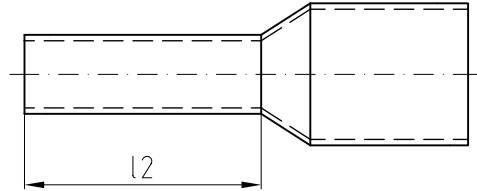
art.-no.: 90865 like above, but **without** crimping tool

art.-no.: 90821 assortment box **without** contents

Special filling
on request!

Insulated cord-end-sleeves 0.5 – 2.5 mm², strip form

Material Cu-DHP according to DIN EN 12449 , Insulation: Polypropylen
Surface: tin plated
strips with 50 pcs.



cross section mm ²	length mm (l ₂)	colour of insulation	art.-no.	colour of insulation	art.-no.	colour of insulation	art.-no.	weight 1000 pcs. approx. kg	packing unit pcs.
0.5	8	white	50011	orange	50111	–	–	0.044	500
0.75	8	grey	50016	white	50116	light blue	50216	0.050	500
1	8	red	50021	yellow	50121	–	–	0.060	500
1.5	8	black	50026	red	50126	–	–	0.076	500
2.5	8	blue	50031	–	–	grey	50231	0.090	500

Stripping and crimping tool “Stripax Plus”

art.-no.: 91010

Crimping tool for crimping insulated cord-end-sleeves in strip form with cross section 0.5 - 2.5 mm².

With stripping- and cutting unit for wires up to 2.5 mm².

Working principle:

- Put cord-end-sleeves in strip form into upper part of the grip
- Insert the end of the cable into the front of the tool and strip the insulation
- Now put the striped cable into the cimp opening from the side and press the grips together. A cord-end-sleeve is pressed onto the cable and the next sleeve is transported into its crimping position automatically.



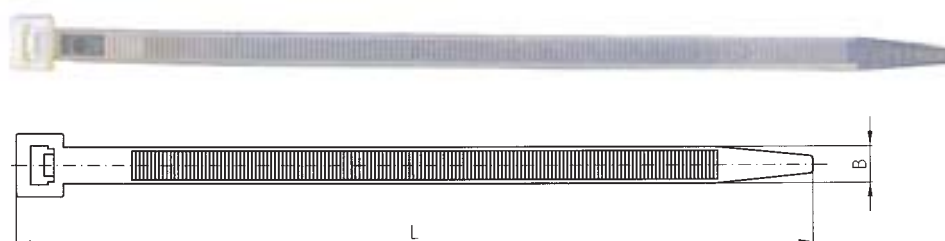
Cable ties, colour nature + black, polyamide
Cable ties with steel clip, colour nature + black, polyamide
Cable ties, heat stabilized, polyamide
Cable ties out of stainless steel
Cable tie mounts, polyamide
Clips, self adhesive, polyamide

Shrinkable tubings

Cable ties according to DIN EN 50146 version 2000

Material: polyamide 6.6, colour nature

Temperature of every-day usage: – 40 °C up to + 85 °C



Licences



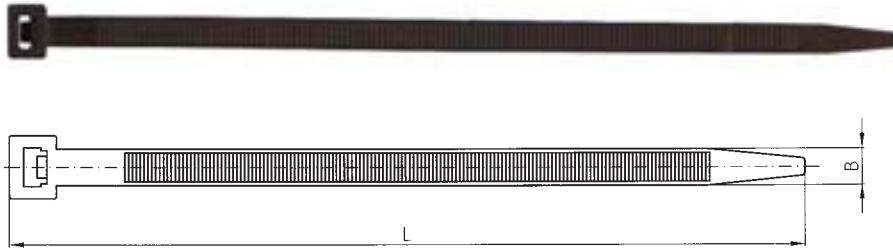
length mm	width mm	art.-no.	max. bundle-Ø mm	tensile strength Newton	packaging unit pcs.	tools recommendation	
100	2.5	61051	24	110	100	KB 1 page 108	KB 3 page 108
135	2.5	61053	35	110	100		
200	2.5	61057	55	110	100		
140	3.5	61059	36	200	100		
200	3.5	61062	55	200	100		
280	3.5	61065	80	200	100		
360	3.5	61068	103	200	100		
160	4.5	61071	38	280	100		
180	4.5	61073	45	280	100		
200	4.5	61075	51	280	100		
250	4.5	61077	68	280	100	KB 1 page 108	KB 3 page 108
280	4.5	61080	76	280	100		
360	4.5	61083	101	280	100		
430	4.5	61086	123	280	100		
180	7.5	61090	44	650	100		
240	7.5	61091	62	650	100		
320	7.5	61095	88	650	100		
360	7.5	61098	101	650	100		
450	7.5	61101	130	650	100		
540	7.5	61104	160	650	100		
750	7.5	61106	220	650	100	KB 1 page 108	KB 3 page 108
780	9.0	61110	235	800	100		
500	12.5	61116	140	1200	50		
750	12.5	61119	222	1200	50		
1000	12.5	61122	300	1200	50	KB 1 page 108	KB 3 page 108

Coloured cable ties are available on request!

Cable ties according to DIN EN 50146 version 2000

Material: polyamide 6.6, colour black, UV-stabilized*

Temperature of every-day usage: – 40 °C up to + 85 °C



Licences



length mm	width mm	art.-no.	max. bundle-Ø mm	tensile strength Newton	packaging unit pcs.	tools recommendation
100	2.5	61151	24	110	100	KB 1 page 108 KB 3 page 108
135	2.5	61153	35	110	100	
200	2.5	61157	55	110	100	
140	3.5	61159	36	200	100	
200	3.5	61162	55	200	100	
280	3.5	61165	80	200	100	
360	3.5	61168	103	200	100	
160	4.5	61171	38	280	100	
180	4.5	61173	45	280	100	
200	4.5	61175	51	280	100	
250	4.5	61177	68	280	100	
280	4.5	61180	76	280	100	
360	4.5	61183	101	280	100	
430	4.5	61186	123	280	100	
180	7.5	61190	44	650	100	
240	7.5	61191	62	650	100	
320	7.5	61195	88	650	100	
360	7.5	61198	101	650	100	
450	7.5	61201	130	650	100	
540	7.5	61204	160	650	100	
750	7.5	61206	220	650	100	
780	9.0	61210	235	800	100	
500	12.5	61216	140	1200	50	
750	12.5	61219	222	1200	50	
1000	12.5	61222	300	1200	50	

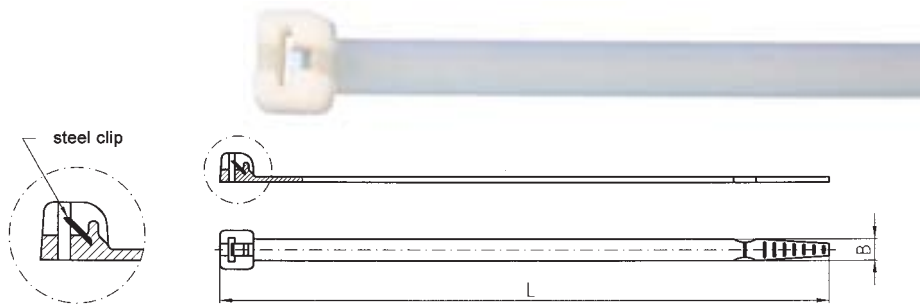
* 1 – 2 years air- and weather-proof

Cable ties with a guaranteed UV-resistance of 10 years are available on request!

Cable ties with steel clip according to DIN EN 50146 version 2000

Material: polyamide 6.6, colour nature, steel clip out of stainless steel for high tensile strength

Temperature of every-day usage: – 40 °C up to + 85 °C



Licences

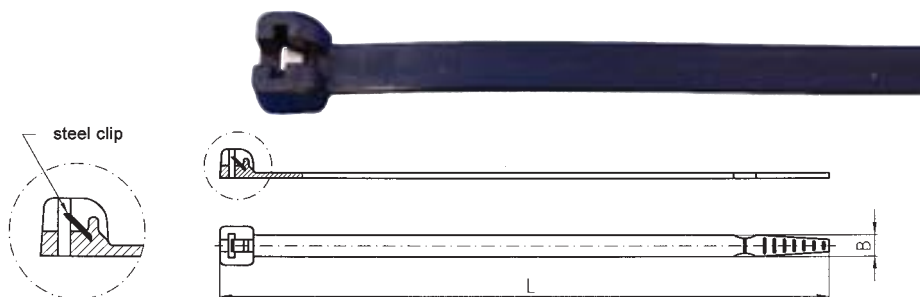


length mm	width mm	art.-no.	max. bundle-Ø mm	tensile strength Newton	packaging unit pcs.	tools recommendation	
100	2.5	61251	24	180	100	KB 1 page 108	KB 3 page 108
200	2.5	61257	55	180	100		
140	3.5	61259	36	280	100		
200	3.5	61262	55	280	100		
280	3.5	61265	80	280	100		
200	4.5	61275	51	400	100		
290	4.5	61280	76	400	100		
360	4.5	61283	101	400	100		
220	7.5	61291	56	800	50		
360	7.5	61298	101	800	50		

Cable ties with steel clip according to DIN EN 50146 version 2000

Material: polyamide 6.6, colour black, steel clip out of stainless steel for high tensile strength, UV-stabilized*

Temperature of every-day usage: – 40 °C up to + 85 °C



Licences



* 1 – 2 years air- and weather proof

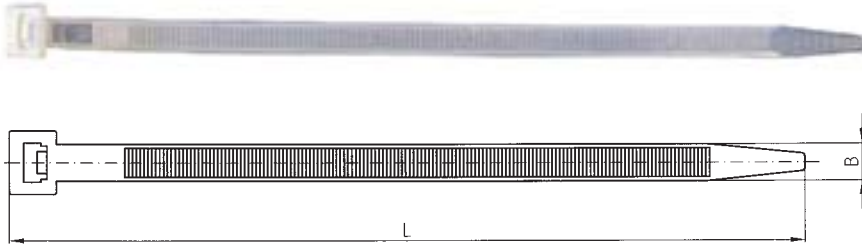
length mm	width mm	art.-no.	max. bundle-Ø mm	tensile strength Newton	packaging unit pcs.	tools recommendation	
100	2.5	61351	24	180	100	KB 1 page 108	KB 3 page 108
200	2.5	61357	55	180	100		
140	3.5	61359	36	280	100		
200	3.5	61362	55	280	100		
280	3.5	61365	80	280	100		
200	4.5	61375	51	400	100		
290	4.5	61380	76	400	100		
360	4.5	61383	101	400	100		
220	7.5	61391	56	800	50		
360	7.5	63298	101	800	50		

Cable ties with a guaranteed UV-resistance of 10 years are available on request!

Cable ties heat stabilized

Material: polyamide 6.6, colour celadon

Temperature of every-day usage: – 40 °C up to + 130 °C (temporary up to + 145 °C)



length mm	width mm	art.-no.	max. bundle-Ø mm	tensile strength Newton	packaging unit pcs.	tools recommendation	
100	2.5	61451	24	110	100	KB 1 p. 108	KB 3 p. 108
160	2.5	61454	40	110	100		
200	4.5	61475	51	280	100		
280	4.5	61480	76	280	100		
360	4.5	61483	101	280	100		
360	7.5	61498	101	650	100		

Cable ties out of stainless steel

Material: stainless steel type 316 (thickness: 0.3 mm)

Heat resistance: – 80 °C up to + 538 °C



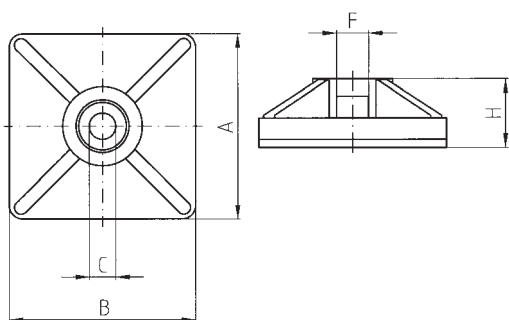
Licences



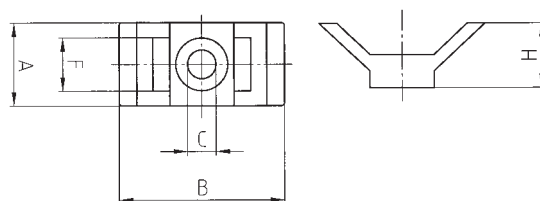
length mm	width mm	art.-no.	max. bundle-Ø mm	tensile strength Newton	packaging unit pcs.	tools recommendation	
152	4.5	61300	25	444	10	KB 5 page 108	
200	4.5	61302	50	444	10		
360	4.5	61304	102	444	10		
520	8.0	61320	152	1111	10		
840	8.0	61324	254	1111	10		
1050	8.0	61326	318	1111	10		

Cable tie mounts

Material: polyamide 6.6, colour nature



art.-no. 61038 and 61040



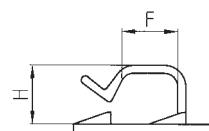
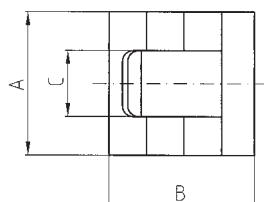
art.-no. 61044

art.-no.	dimension in mm					packaging unit pcs.	remarks
	A	B	C	F	H		
61038	19	19	4.7	4	6	100	self adhesive
61040	27	27	4.8	5.6	6.7	100	self adhesive
61044	15	30	5.2	9.4	11.5	100	screw fixing

Cord-Clips, self adhesive

applicable for fixing cables, hoses, tubes, etc.

Material: polyamide 6.6, colour nature



art.-no.	dimension in mm					packaging unit pcs.	
	A	B	C	F	H		
61020	19	19	10.1	5.5	5.3	100	
61022	26.4	26.7	12.2	11.5	10	100	
61024	26	26	15.5	17.5	14	100	

Shrinkable tubings type: W 135

Material: polyolefin, **colour: black**, **shrinking proportion: 2 : 1**
 flame-retardant, self-extinguishing, thin walled

Licences



inside-Ø in mm		art.-no.	wall thickness mm	packaging unit m/coil
before shrinking	after shrinking			
1.6	0.8	65001	0.4	150
2.4	1.2	65003	0.5	150
3.2	1.6	65006	0.5	150
4.8	2.4	65009	0.5	75
6.4	3.2	65012	0.6	75
9.5	4.8	65015	0.6	75
12.7	6.4	65018	0.6	50
19.0	9.5	65021	0.8	30
25.4	12.7	65024	0.9	30
31.8	15.9	65027	0.9	30
38.0	19.0	65030	1.0	30



Shrinkable tubings type: W 135 3 : 1

Material: polyolefin, **colour: black**, **shrinking proportion: 3 : 1**
 flame-retardant, self-extinguishing, thin walled

Licences



inside-Ø in mm		art.-no.	wall thickness mm	packaging unit m/coil
before shrinking	after shrinking			
3.2	1.0	65106	0.55	150
6.4	2.0	65112	0.65	75
9.5	3.0	65115	0.75	75
12.7	4.0	65118	0.75	50
19.0	6.0	65121	0.85	30
25.4	8.0	65124	1.0	30
39.0	13.0	65130	1.15	30



Shrinkable tubings type: WKS 3 : 1

Material: polyolefin, **colour: black**, **shrinking proportion: 3 : 1**
 flame-retardant, self-extinguishing (only exterior coat), thin walled, **with inside glue**



inside-Ø in mm		art.-no.	wall thickness* mm	packaging unit in length a 1.22 m
before shrinking	after shrinking			
6.0	2.0	65212	1.2	1
9.0	3.0	65215	1.4	1
12.0	4.0	65218	1.7	1
19.0	6.0	65221	2.1	1
24.0	8.0	65224	2.4	1

*including glue coat

Shrinkable tubings type: WDW

Material: polyolefin, colour: black, **shrinking proportion: 3 : 1**
thick-walled, not protected against fire, **with inside glue**

Licences



*not listened



inside-Ø in mm		art.-no.	wall thickness mm	packaging unit in length a 1.22 m
before shrinking	after shrinking			
13.0	4.1	65318	2.4	1
19.1	6.1	65321	2.4	1
27.9	8.9	65324	3.0	1
50.8	16.0	65327	4.1	1
68.1	22.1	65330	4.1	1
89.9	30.0	65333*	4.1	1
119.9	39.9	65336*	4.3	1

Shrinkable tubings type: W 135 gr/ye

Material: polyolefin, colour: green/yellow, **shrinking proportion: 3 : 1**
flame-retardant, self-extinguishing, thin walled

Licences

DEF
STAN
59/97



inside-Ø in mm		art.-no.	wall thickness mm	packaging unit in length a 1.22 m
before shrinking	after shrinking			
3.2	1.0	65406	0.55	1
6.4	2.0	65412	0.65	1
9.5	3.0	65415	0.75	1
12.7	4.0	65418	0.75	1
19.0	6.0	65421	0.85	1
25.4	8.0	65424	1.0	1

Shrinkable tubings type: W 135 bl

Material: polyolefin, colour: blue, **shrinking proportion: 3 : 1**
flame-retardant, self-extinguishing, thin walled

Licences



inside-Ø in mm		art.-no.	wall thickness mm	packaging unit in length a 1.22 m
before shrinking	after shrinking			
3.2	1.0	65506	0.55	1
6.4	2.0	65512	0.65	1
9.5	3.0	65515	0.75	1
12.7	4.0	65518	0.75	1
19.0	6.0	65521	0.85	1
25.4	8.0	65524	1.0	1

Shrinkable tubings type: WHF

Material: polyolefin, colour: black, **shrinking proportion: 2 : 1**
halogen free, protected against fire (only small formation of smoke during fire)

Licences

DEF
STAN
59/97



inside-Ø in mm		art.-no.	wall thickness mm	packaging unit m/coil
before shrinking	after shrinking			
3.2	1.6	65606	0.51	150
4.8	2.4	65609	0.51	75
6.4	3.2	65612	0.64	75
9.5	4.8	65615	0.64	75
12.7	6.4	65618	0.64	50
19.0	9.5	65621	0.76	30
25.4	12.7	65624	0.89	30
38.0	19.0	65630	1.02	30

Hand-operated crimping tools

System crimping tool WZ 12 without dies



System crimping tool with changeable dies for crimping nearly every common small electric contact.

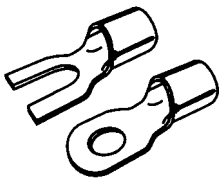
- Advantages:
- parallel crimping, therefore optimal press quality
 - ratchet with release function for reliable crimping
 - possibility to adjust the crimping force by a central pin
 - 30% reduced hand force due to optimal transmission by toggle transmission
 - delivery including plastic case

At least one single tool for all cases!

art.-no. (without dies): 90712



Crimping dies for WZ 12



Dies mandrel shape

for crimping noninsulated ring- and fork terminals, pin-terminals and connectors from 0.5 to 10 mm².

art.-no.: 90772



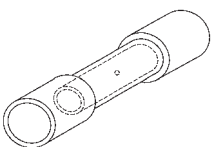
Dies for insulated terminals

for crimping insulated ring- and fork terminals, pin-terminals, connectors, etc. from 0.5 to 6 mm², contact and insulation crimping in one step.

art.-no.: 90773

for crimping insulated ring- and fork-terminals and pin-terminals with cross sections from 10 to 16 mm²

art.-no.: 90774



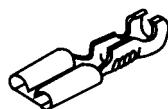
Dies for heat shrinkable butt splice connectors

for crimping heat shrinkable butt splice connectors (WEITKOWITZ products) with cross sections from 0.14 to 6 mm², catalogue page 63.

art.-no.: 90790

Crimping dies for WZ 12

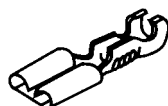
Further dies are available on request!



Dies for noninsulated open barrel terminals

for crimping noninsulated open barrel male and female terminals with cross sections from 0.1 to 2.5 mm² and tab width 2.8 and 4.8 mm; contact and insulation crimping in one step.

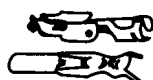
art.-no.: 90775



Dies for noninsulated open barrel terminals

for crimping noninsulated open barrel male and female terminals with cross sections from 0.5 to 6 mm² and tab width 4.8 and 6.3 mm; contact and insulation crimping in one step.

art.-no.: 90776



Dies for modular plugs

for crimping modular plugs 0.5 - 2.5 mm²; contact and insulation crimping in one step.

art.-no.: 90777



Dies for rolled contacts

for crimping rolled contacts 0.14 - 1.5 mm²; contact and insulation crimping in one step.

art.-no.: 90778



Dies for D-sub-connectors

for crimping D-sub-connectors 0.08 - 0.56 mm²; contact and insulation crimping in one step.

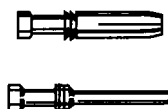
art.-no.: 90779



Dies for turned contacts

for crimping turned contacts (multipin plug connections) plug-in-Ø 1.6 mm, 2.4 mm and 2.5 mm, cross section : 0.1 - 4.0 mm².

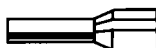
art.-no.: 90781



Dies for turned contacts

for crimping turned contacts (multipin plug connections) plug-in-Ø 1.6 mm, 2.4 mm and 2.5 mm, cross section: 1.5 - 6.0 mm².

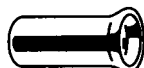
art.-no.: 90782



Dies square-shape

for crimping insulated and noninsulated cord-end-sleeves 0.5 - 6 mm².

art.-no.: 90784



for crimping insulated and noninsulated cord-end-sleeves 10 - 25 mm².

art.-no.: 90785



Dies hexagonal shape

for crimping coax-connectors RG 58, RG 59, RG 62 and RG 71.

art.-no.: 90788

for crimping coax-connectors RG 58 and RG 174.

art.-no.: 90789

Crimping tools



Crimping tool set WZ 1

art.-no.: 90701

Crimping tool set with changeable dies for crimping all common crimp contacts.

Advantages: – very good cost-performance ratio
– **quick and easy change of dies because of quick-locking mechanism**
– all components of the set are kept in a high quality transport box with inlay out of foam material

Set consists of:

- **Basis tool:** matt chromium-plated, with releaseable locking device, adjustable crimping pressure, 2-components-handle
- **Dies:**
 - for isolated terminals, connectors and disconnectors, etc. from 0.5 to 6 mm²
 - for noninsulated terminals, etc. from 0.5 to 10 mm²
 - for cord-end-sleeves from 0.5 to 16 mm²
 - for noninsulated male and female disconnectors from 0.5 to 2.4 mm², tab width 4.8 mm²
 - and for BNC and TNC coax connectors RG58, RG59, RG62 and RG71 conductors
- **transport box** out of stable plastic with a high quality inlay out of foam material



Crimping tool WZ 5

art.-no.: 90705

Tool for crimping insulated and noninsulated terminals, connectors and insulated male and female disconnectors with cross sections from 0.1 to 0.5 mm². The ratchet guarantees a permanent high quality crimping result. When crimping insulated terminals and male and female disconnectors contact and insulation crimping are performed in one step.

length: 190 mm



WZ 17



WZ 18



Crimping tool WZ 17

art.-no.: 90717

Crimping tool for crimping noninsulated terminals, tubular cable lugs and connectors of the standard-series from 0.5 to 10 mm². The ratchet guarantees a permanent high quality crimping result.

length: 260 mm

Crimping tool WZ 18

art.-no.: 90718

Crimping tool for crimping noninsulated terminals, tubular cable lugs and connectors of the standard-series from 1.5 to 16 mm². The ratchet guarantees a permanent high quality crimping result.

length: 290 mm



Crimping tool WZ 21

art.-no.: 90721

Crimping tool for crimping tubular cable lugs and connectors of the euro-series from 0.5 to 6 mm². The ratchet guarantees a permanent high quality crimping result. The parallel crimping motion leads to optimal pressing results.

length: 210 mm

Crimping tools



Crimping tool WZ 20

art.-no.: 90720

Crimping tool for crimping noninsulated terminals from 0.1 to 10 mm². The ratchet guarantees a permanent high quality crimping result.

length: 225 mm



Special crimping tool series for solid conductors 4, 6, 10 or 16 mm²

Special crimping tool for crimping solid conductors in combination with the following series of cable lugs and connectors. A releaseable ratchet guarantees a permanent high quality crimping result. The extremely small crimping head enables convenient working even in areas difficult to reach.

Crimping shape: special mandrel-shape length: 275 mm

Four different versions are available:

cross section mm ²	die code no.	applicable for series	art.-no.
4	-	standard - series	99903
6	5	DIN 46235/DIN 46267 part 1	99907
10	6	DIN 46235/DIN 46267 part 1	99904
16	8	DIN 46235/DIN 46267 part 1	99905



Crimping tool WZ 7

art.-no.: 90707

Crimping tool with end-point-locking for crimping noninsulated open barrel terminals with cross sections from 0.5 to 6 mm² and a tab width of 6.3 mm. Contact and insulation crimping are performed in one step. This tool has a cutting and stripping unit for cables up to 6 mm².

length: 210 mm



Crimping tool WZ 8

art.-no.: 90708

Crimping tool with end-point-locking for crimping noninsulated open barrel terminals with cross sections from 0.5 to 6 mm² and tab width of 4.3 and 6.3 mm. Contact and insulation crimping are performed in one step. The parallel crimping motion leads to optimal pressing results.

length: 205 mm

Crimping tools



Crimping tool WZ 26

art.-no.: 90726

Crimping tool with releaseable locking device for crimping WEITKOWITZ insulated flag female disconnectors from 0.5 to 2.5 mm² (catalogue page 66).

length: 225 mm



Crimping tool WZ 10

art.-no.: 90710

Crimping tool with a simple design for crimping insulated terminals, male and female disconnectors, etc. from 0.5 to 2.5 mm². Cable cutter, stripping unit and screw cutter as well as dies for spark-plugs and ignition distributor contacts make these pliers an universal tool.

The WZ 10 is made of high resistance steel with fine grain micro-structure. All parts of the tool are case hardened and subsequently tempered.

length: 210 mm



Crimping tool WZ 9

art.-no.: 90709

Crimping tool with end-point-locking for crimping insulated terminals, connectors, male and female disconnectors, receptacles and bullet disconnectors from 0.5 to 6 mm². This tool has a cutting and stripping unit for cables up to 6 mm².

length: 210 mm

Crimping tools



Crimping tool WZ 23

art.-no.: 90723

High-performance crimping tool with releaseable locking device for crimping insulated terminals, connectors, male and female disconnectors, receptacle and bullet disconnectors from 0.5 to 6 mm². Contact and insulation crimping are performed in one step. The optimized lever transmission guarantees an easy, power-saving working.

length: 255 mm



Crimping tool WZ 24

art.-no.: 90724

Crimping tool with releaseable locking device for crimping insulated terminals, connectors, male and female disconnectors, receptacles and bullet disconnectors from 0.5 to 6 mm². Contact and insulation crimping are performed in one step. The toggle transmission enables an advantageous opening angle and reduced hand forces during crimping.

length: 225 mm



Crimping tool WZ 28

art.-no.: 90728

Crimping tool for crimping insulated terminals with cross sections of 10 mm² and 16 mm². The releaseable locking device guarantees a permanent high quality crimping result.

length: 290 mm

Pneumatic crimping machine PA 2



Pneumatic crimping machine with pedal switch and removable crimping dies, for processing insulated and noninsulated cable lugs, connectors, male and female open barrel terminals, male and female disconnectors and cord-end-sleeves.

Exactly positioning of crimping parts by sliding holder with locators.

With CE-licence.

Technical Data:

weight:	8.2 kg	air consumption per stroke:	1.2 litre
air pressure:	6 bar/90 PSI	measurements (length x width x height):	375 x 185 x 185 mm

Pneumatic crimping machine PA 2 (without crimping head and sliding holder):	art.-no.: 90960
Adapter-crimping head	art.-no.: 90961
Sliding holder	art.-no.: 90962

Available crimping dies and locators:

Designation	art.-no.:
CRIMPING DIES:	
for insulated terminals, connectors, receptacles 0.1 – 2.5 mm ²	90963
for insulated terminals, connectors, receptacles 4 – 6 mm ²	90964
for noninsulated terminals and connectors 0.5 – 2.5 mm ²	90965
for noninsulated terminals and connectors 4 – 6 mm ²	90966
for noninsulated terminals and connectors 10 mm ²	90967
for noninsulated receptacles and tabs 0.14 – 1 mm ² , only 2.8 and 4.8 mm tab width	90975
for noninsulated receptacles and tabs 0.5 – 2.5 mm ²	90969
for noninsulated receptacles and tabs 4 – 6 mm ²	90970
for insulated and noninsulated cord-end-sleeves 0.25 – 4 mm ²	90971
for insulated and noninsulated cord-end-sleeves 6 – 16 mm ²	90972
LOCATORS:	
suitable for art.-no. 90963:	
for most ring- and fork-terminals with standard flat holes M4 – M8	90980
for female disconnectors, tab width 2.8 mm	90981
for female disconnectors, tab width 4.8 mm	90982
for female disconnectors, tab width 6.3 mm	90983
for male disconnectors with tab width 2,8/ 4,8/ 6,3 mm and pin-terminals	90991

Accessoires for pneumatical crimping machine PA 2

Available locators:

Designation	art.-no.:
LOCATORS:	
suitable for art.-no. 90964:	
for most ring- and fork-terminals with standard flat holes M4 – M8	90980
for female disconnectors, tab width 6.3 mm	90984
for male disconnectors with tab width 2.8/ 4.8/ 6.3 mm and pin-terminals	90991
suitable for art.-no. 90965:	
for the most ring- and fork-terminals with standard flat holes M4 – M8	90980
for pin terminals	90991
suitable for art.-no. 90966:	
for the most ring- and fork-terminals with standard flat holes M4 – M8	90980
for pin terminals	90991
suitable for art.-no. 90967:	
for most ring- and fork-terminals with standard flat holes M4 – M8	90980
for pin terminals	90991
suitable for art.-no. 90969:	
for most ring- and fork-terminals with standard flat holes M4 – M8	90980
for female disconnectors, tab width 2.8 mm	90985
for female disconnectors, tab width 4.8 mm	90986
for female disconnectors, tab width 6.3 mm	90987
for male disconnectors with tab width 2.8/ 4.8/ 6.3 mm and pin-terminals	90991
suitable for art.-no. 90970:	
for most ring- and fork-terminals with standard flat holes M4 – M8	90980
for female disconnectors, tab width 6.3 mm	90988
for male disconnectors with tab width 6.3 mm	90991
suitable for art.-no. 90975:	
for most ring- and fork-terminals with standard flat holes M4 – M8	90980
for female disconnectors, tab width 2.8 mm	90989
for female disconnectors, tab width 4.8 mm	90990
for male disconnectors with tab width 2.8 and 4.8 mm	90991

Electric hand crimping tool CRIMMBOSS



Electric hand crimping tool for crimping cord-end-sleeves

Forceful advantages:

- **powerful:** electric drive 220 V (110 V available on request)
- **universal:** for crimping insulated cord-end-sleeves 0.5 – 2.5 mm² without changing dies; press length 12 mm; noninsulated cord-end-sleeves can be crimped with the optional set of contact plates
- **simple:** automatic release after inserting a cord-end-sleeve
- **practical:** easily mounted at nearly any place due to magnet holder
- **safe:** safe handling, of course with CE-sign
- **good value:** very good cost-performance ratio

Crimmboss art.-no.: 90755

Magnet holder for Crimmboss art.-no.: 90756

Conversion set for crimping cord-end-sleeves 0.14 – 1.0 mm² art.-no.: 90757

Set of contact plates for crimping noninsulated cord-end-sleeves 0.25 – 2.5 mm² art.-no.: 90761

Crimping tools for cord-end-sleeves



Crimping tool AZ 7

art.-no.: 90807

Crimping tool with releaseable locking device for crimping cord-end-sleeves from von 0.14 to 6 mm². It points by an automatic die with registered design protected springs.

Cord-end-sleeves are inserted into the universal die from the front and are equally pressed from four sides. This square crimping guarantees optimal contact zones for clamping.

The ergonomically formed, soft cushioned 2-components-handle guarantees a convenient usage.

length: 210 mm



Crimping tool AZ 8

art.-no.: 90808

Crimping tool with releaseable locking device for crimping cord-end-sleeves from 0.08 to 10 mm². The cord-end-sleeves are inserted into the universal die from the front and are equally pressed from four sides. This results in optimal contact zones for clamping. The adjustment to the cross section being crimped is performed fully automatically.

length: 190 mm



Crimping tool AZ 16

art.-no.: 90752

Crimping tool with releaseable locking device for crimping cord-end-sleeves from 6 to 16 mm².

length: 205 mm

Crimping tools for cord-end-sleeves



Crimping tool AZ 14

art.-no.: 90814

Crimping tool with releaseable locking device for crimping cord-end-sleeves from 0.75 to 10 mm².

Cord-end-sleeves are inserted into the universal die from the front and are equally pressed from four sides. This square crimping guarantees optimal contact zones for clamping.

length: 175 mm



Crimping tool AZ 10

art.-no.: 90810

Crimping tool with releaseable locking device for crimping cord-end-sleeves from 0.14 to 4 mm². Cord-end-sleeves are inserted into the universal die from the front and are equally pressed from four sides. This square crimping guarantees optimal contact zones for clamping.

The ergonomically formed, soft cushioned 2-components-handle guarantees a convenient usage.

length: 190 mm



Crimping tool AZ 11

art.-no.: 90811

Crimping tool with releaseable locking device for crimping cord-end-sleeves from 6 to 16 mm². Cord-end-sleeves are inserted into the universal die from the front and are equally pressed from four sides. This square crimping guarantees optimal contact zones for clamping.

The ergonomically formed, soft cushioned 2-components-handle guarantees a convenient usage.

length: 225 mm

Crimping tools and crimping pliers for cord-end-sleeves



Crimping tool AZ 15

art.-no.: 90750

Crimping tool with releaseable locking device for crimping cord-end-sleeves from 0.5 to 4 mm². Cord-end-sleeves are inserted from the front and crimped completely in one step (max. sleeve's length: 18 mm)

length: 205 mm



Cord-end-sleeve crimping pliers AZ 4

art.-no.: 90804

Crimping pliers for crimping cord-end-sleeves from 0.14 to 2.5 mm², square-shaped crimping.

length: 150 mm



Cord-end-sleeve crimping pliers AZ 6

art.-no.: 90806

Crimping pliers for crimping cord-end-sleeves from 0.5 to 16 mm², in transverse direction notching. Easy handling because of optimal lever transmission.

length: 225 mm

Special crimping tools for tubular oval-connectors



Special crimping tool with toggle transmission and releaseable locking device for crimping tubular oval-connectors from 0.5 to 4 mm².

The parallel crimping and the wave-shaped dies (specially designed for WEITKOWITZ oval-connectors) guarantee optimal crimping results. (catalogue page 15).

length: 270 mm

Two different versions are available:

cross section	art.-no.
0.5 + 4 mm ²	99901
1.5 + 2.5 mm ²	99902

**Wire strippers
Cable tie tension tools
Cable cutters**

Stripping tools



Stripax-automatic wire stripping tool AB 13

art.-no.: 90713

Stripping tool with automatic insulation slip off. For wires from 0.08 to 6 mm². The elastically mounted, lamellated wire stripper adjusts automatically to the respective conductor cross section. The AB 13 is equipped with a touch protected wire cutter for finewiring copper cables up to 4 mm² and a stop in order to adjust easily the insulation length to be stripped off. length: 180 mm

Replacemant stripping-unit for AB 13 (ex version 2001)

art.-no.: 90792

(older versions on request)



Automatic wire stripping tool AB 14

art.-no.: 90714

Stripping tool with automatic insulation slip off. For wires from 0.2 to 6 mm². Small, slim design for convenient usage even in areas difficult to reach. The ergonomic, slim design enables working easily without any efforts. Because of the blade's design damaging the inner conductors during working can be excluded. The AB 14 is provided with a wire cutter for cables up to 2.5 mm², an adjustable length stop and a locking lever for transportation.



Automatic wire stripping tool AB 19

art.-no.: 90719

Stripping tool with automatic insulation slip off. For wires from 0.08 to 6 mm². The elastically mounted, lamellated wire stripper adjusts automatically to the respective conductor cross section. The blades consist of metal completely. The AB 19 is equipped with a touch protected wire cutter for finewiring copper cables up to 4 mm² and a stop in order to adjust easily the insulation length to be stripped off. The ergonomic handgrip make this tool convenient to use even for people with small hands.

length: 180 mm

Replacemant stripping-unit for AB 19

art.-no.: 90794



Automatic wire stripping tool AB 16

art.-no.: 90716

Wire stripping tool with automatic insulation slip off. For wires from 1 to 25 mm². length: 220 mm

Replacemant stripping-unit for AB 16

art.-no.: 90796

Cable stripping knives



Skinning tool AM 1

art.-no.: 90815

Skinning tool for round cables from 25 mm Ø on, suitable for longitudinal and round section. The depth of the cut is adjustable from 0 to 5 mm. The cutting blade can be used double-sided. Delivery including plastic box.

Replacement cutting blade for AM 1

art.-no.: 90791



Skinning tool AM 2

art.-no.: 90816

Skinning tool for round cables from 4.5 to 40 mm Ø and a max. insulation strength of 4.5 mm. Because of defined locking positions it is possible to perform circle, longitudinal and spiral cuttings. Two interchangeable cable hooks (small hook for 4.5 - 25 mm Ø and big hook for 20 - 40 mm Ø) make the AM2 an universal skinning tool. It is an extremely ergonomic tool and consists of a modern, high-resistant plastic material. Replacement cutting blades are available and can be stored inside the tool.

Replacement cutting blade for AM 2

art.-no.: 90793



Swivel-blade cable strippers with knife

Cable stripper for accurate, fast and safe stripping of all common round cables from 4 to 28 mm outside-Ø. No damages of the inner conductors due to variable adjustment of the cutting depth.

Two different versions are available:

with hook knife (illustration)

art.-no.: 90818

with straight knife

art.-no.: 90819

Replacement cutting blade for cable stripper

art.-no.: 90826



Round cable stripper no. 13

art.-no.: 90812

For round and continental type cables of 8 - 13 mm outside-Ø (NYM 3 x 1.5 mm² to 5 x 2.5 mm²). Flush stripping even in areas hard to reach. No damages of the inner conductors. An adjustment of the cutting depth is not necessary.



Coaxial cable stripper no. 2

art.-no.: 90813

Two- or three-level stripping of all common coaxial cables (e.g. antenna and transmission cables) from 4.8 to 7.5 mm outside-Ø. An adjustment of cutting depth is not necessary.

Cable tension tools and cable cutters



Cable tie tension tool for plastic-cable ties KB 1

art.-no.: 90888

For tensioning and cutting plastic cable ties in one step. The tractive force is steplessly adjustable. By cutting of the cable tie aligned with the clasp, sharp edges are avoided. Applicable for cable ties up to 4.8 mm width.

length: 165 mm



Cable tie tension tool for plastic-cable ties KB 3

art.-no.: 90895

For tensioning and cutting plastic cable ties up to 9.5 mm width and a maximum strength of 2.3 mm.

Handy, robust tool.

length: 190 mm



Cable tie tension tool for cable ties made of stainless steel KB 5

art.-no.: 90899

For tensioning and cutting cable ties made of stainless steel. A robust and handy tool, applicable for cable ties up to 12 mm width and 0.6 mm strength. It can also be used for nylon plated cable ties out of stainless steel.

length: 210 mm



Cable cutter KS 35

art.-no.: 90842

High quality forged cable cutter for cutting stranded aluminium and copper cables up to 35 mm², resp. up to 11 mm outside-Ø.

Long life cycle, low efforts during cutting and a clean, round cut make the KS 35 a convenient tool.

length: 165 mm

Cable cutters



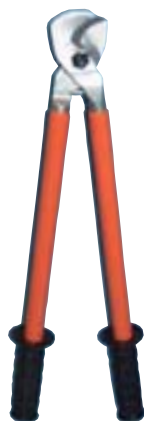
Cable cutter KS 50

art.-no.: 90829

High quality forged cable cutter for cutting stranded aluminium and copper cables up to 50 mm², resp. up to 15 mm outside-Ø.

Long life cycle, low efforts during cutting and a clean, round cut make the KS 50 a convenient tool.

length: 240 mm



Cable cutter KS 120

art.-no.: 90832

Cable cutter for cutting stranded aluminium and copper cables up to 27 mm outside-Ø (max. 1 x 120 mm²).

Not applicable for cutting **steel-wires**, cables with **steel-insertion** and **solid conductors**.

length: 500 mm

weight: 1.0 kg



Cable cutter KS 240

art.-no.: 90836

Cable cutter for cutting stranded aluminium and copper cables up to 30 mm outside-Ø (max. 1 x 240 mm²). The cutting blades consist of a forged, specially hardened tool steel. Long life cycle, low efforts during cutting and a clean, round cut make the KS 240 a convenient tool.

Not applicable for cutting **steel-wires**, cables with **steel-insertion** and **solid conductors**.

length: 600 mm

weight: 1.7 kg



Cable cutter KS 34 S

art.-no.: 90910

Very robust and smooth running cable cutter for cutting stranded aluminium and copper cables up to 4 x 70 mm² approx. 1 x 185 mm² and finewiring conductors up to 34 mm outside diameter. The double needle beared and patented excentric dive compined with a special blade design guarantees the excellent efficiency of this cable cutter.

Not applicable for cutting **steel-wires**, cables with **steel-insertion** and **solid conductors**.

length: 250 mm

weight: 0.9 kg

Cable cutters



Cable cutter KS 52 S

art.-no.: 90913

Very robust and smooth running cable cutter for cutting stranded aluminium and copper cables up to 4 x 120 approx. 1 x 300 mm² and finewiring conductors up to 52 mm outside-diameter. The double needle beared and patented excentric dive compined with a special blade design guarantees the excellent efficiency of this cable cutter.

Not applicable for cutting **steel-wires**, cables with **steel-insertion** and **solid conductors**.

length: 325 mm

weight: 1.2 kg



Cable cutter KS 60

art.-no.: 90916

Very stable and smooth hand-operated cable cutter for cutting stranded aluminium and copper cables with a coat of hard rubber or plastic up to 60 mm outside-Ø, e.g. 4 x 240 mm² NAYY. No squeezing, no deformation of the conductor, easy clean cut due to ratchet gearing. It is possible to open the cutter in any cutting position. The cutting blades consist of a hardened special tool steel.

Not applicable for cutting **steel-wires**, cables with **steel-insertion** and **solid conductors**.

length: 720 mm

weight: 5.0 kg



Cable cutter KS 100

art.-no.: 90919

Very stable and smooth hand-operated cable cutter for cutting stranded aluminium and copper cables with a coat of hard rubber or plastic up to 100 mm outside-Ø, e.g. 4 x 400 mm² NAYY. No squeezing, no deformation of the conductor, easy clean cut due to ratchet gearing. It is possible to open the cutter in any cutting position. The cutting blades consist of a hardened special tool steel.

Not applicable for cutting **steel-wires**, cables with **steel-insertion** and **solid conductors**.

length: 870 mm

weight: 5.6 kg

Mechanical crimping tools

Crimping tools



Crimping tool KW 50/120

art.-no.: 90160

Crimping tool KW 70/150

art.-no.: 90165

Crimping tool KW 120/240

art.-no.: 90170

Crimping tool for crimping WEITKOWITZ tubular cable lugs and connectors of the **standard- and euro-series**.

application range: KW 50/120 = 50 - 120 mm²
 KW 70/150 = 70 - 150 mm²
 KW 120/240 = 120 - 240 mm²

The cross section can be adjusted by turning the in-built revolving dies. So there is no need of changing dies. Extension spars are provided.

length: 630 mm, with extension spars 950 mm
weight: 5.2 kg



Crimping tool DP 6/95

art.-no.: 90131

Crimping tool for crimping WEITKOWITZ tubular cable lugs and connectors of the standard- and euro-series, for crimping terminals DIN 46 234, pin terminals DIN 46 230 and connectors DIN 46351 with cross sections from 6 mm² to 95 mm².

- with two threads for mounting on a workbench
- easy adjustment of cross section by an adjustable, self-locking-gearing. So there is no need of changing dies
- with telescopic tubes
- with locking device, the tool opens not until a started crimping process has been finished

length: 535 mm - 730 mm
weight: 3.5 kg



Crimping tool PW 6/50

art.-no.: 90180

Crimping tool for crimping WEITKOWITZ tubular cable lugs and connectors of the **standard-series** (catalogue page 6 - 15).
application range: 6 - 50 mm²

The cross section can be adjusted by turning the in-built revolving dies. So there is no need of changing dies. Furthermore this tool points by small measurements, light weight and an extremely high crimping quality due to WM-crimping.

length: 380 mm
weight: 1.3 kg

Crimping tools



Crimping tool WW 6/50

art.-no.: 90179

Crimping tool for crimping tubular cable lugs and connectors of the **euro-series** (catalogue page 24 - 32).
 application range: 6 - 50 mm²

The cross section can be adjusted by turning the in-built revolving dies. So there is no need of changing dies. Furthermore this tool points by small measurements, light weight and an extremely high crimping quality due to WM-crimping.

length: 380 mm
 weight: 1.3 kg



Crimping tool DW 6/50

art.-no.: 90178

Crimping tool for crimping compression cable lugs DIN 46235, compression connectors DIN 46267, aluminium cable lugs and connectors (catalogue page 33 - 45).
 application range: Cu 6 - 50 mm² (K 5 - K 14)
 Alu 16 - 35 mm² (K 10 - K 14)

The cross section can be adjusted by turning the in-built revolving dies. So there is no need of changing dies. Furthermore this tool points by small measurements, light weight and an extremely high crimping quality due to hexagonal-shape-crimping.

length: 380 mm
 weight: 1.3 kg



Crimping tool PW 6/70

art.-no.: 90181

Crimping tool for crimping WEITKOWITZ tubular cable lugs and connectors of the **standard-series** (catalogue page 6 - 15).
 application range: 6 - 70 mm²

The cross section can be adjusted by turning the in-built revolving dies. So there is no need of changing dies. Furthermore this tool points by small measurements, light weight, optimized transmission ratio and an extremely high crimping quality due to precisely guided dies.

crimping profile: WM-crimping

length: 515 mm
 weight: 2.0 kg

Crimping tools



Crimping tool DW 6/70

art.-no.: 90182

Crimping tool for crimping compression cable lugs DIN 46235, compression connectors DIN 46267, aluminium cable lugs and connectors (catalogue page 33 - 45).

application range: Cu von 6 - 70 mm² (K 5 - K 16)
Alu von 16 - 50 mm² (K 10 - K 16)

The cross section can be adjusted by turning the in-built revolving dies. So there is no need of changing dies. Furthermore this tool points by small measurements, light weight, optimized transmission ratio and an extremely high crimping quality due to precisely guided dies.

crimping profile: hexagonal-shape with control embossing

length: 515 mm

weight: 2.0 kg



Crimping tool WW 6/70

art.-no.: 90186

Crimping tool for crimping tubular cable lugs and connectors of the **euro-series** (catalogue page 24 - 32).

application range: 6 - 70 mm²

The cross section can be adjusted by turning the in-built revolving dies. So there is no need of changing dies. Furthermore this tool points by small measurements, light weight, optimized transmission ratio and an extremely high crimping quality due to precisely guided dies.

crimping profile: WM-crimping

length: 515 mm

weight: 2.0 kg



Crimping tool FW 10/70

art.-no.: 90184

Crimping tool for crimping WEITKOWITZ tubular cable lugs and connectors for **finewiring conductors** (catalogue page 18 - 22).

application range: 10 - 70 mm²

The cross section can be adjusted by turning the in-built revolving dies. So there is no need of changing dies. Furthermore this tool points by small measurements, light weight, optimized transmission ratio and an extremely high crimping quality due to precisely guided dies.

crimping profile: WM-crimping

length: 515 mm

weight: 2.1 kg

Crimping tools



Crimping tool PW 10/120

art.-no.: 90185

Crimping tool for crimping WEITKOWITZ tubular cable lugs and connectors of the **standard-series** (catalogue page 7 - 15).
 application range: 10 - 120 mm²

The cross section can be adjusted by turning the in-built revolving dies. So there is no need of changing dies. Furthermore this tool points by small measurements, light weight and an extremely high crimping quality due to WM-crimping.

length: 660 mm
 weight: 4.1 kg



Crimping tool WW 10/120

art.-no.: 90188

Crimping tool for crimping tubular cable lugs and connectors of the **euro-series** (catalogue page 24 - 32).
 application range: 10 - 120 mm²

The cross section can be adjusted by turning the in-built revolving dies. So there is no need of changing dies. Furthermore this tool points by small measurements, light weight and an extremely high crimping quality due to WM-crimping.

length: 660 mm
 weight: 4.1 kg



Crimping tool DW 10/120

art.-no.: 90189

Crimping tool for crimping compression cable lugs DIN 46235, compression connectors DIN 46267, aluminium cable lugs and connectors (catalogue page 33 - 45).

application range: Cu von 10 - 120 mm² (K 6 - K 20)
 Alu von 16 - 70 mm² (K 10 - K 18)

The cross section can be adjusted by turning the in-built revolving dies. So there is no need of changing dies.
 crimping shape: hexagonal-shape with control embossing

length: 660 mm
 weight: 4.1 kg

Hand-operated mechanical compression tool MP 13 without dies



Robust and handy precision tool with **ratchet gearing** for crimping cable lugs and connectors up to 50 mm². The locking device guarantees a constantly optimal crimping depth and quality.

Advantages:

- compact construction form, only 270 mm long
- small weight, only 1.45 kg
- press capacity: approx. 27 kN
- hinged head
- low efforts due to ratchet gearing
- mechanical, therefore no problems because of dirt or oil leakage

art.-no.: 90200



Dies WM-shape

for crimping WEITKOWITZ cable lugs and connectors of the **standard-series** (page 7 - 15).
Not suitable for cable lugs from other manufacturers!

mm ²	art.-no.	mm ²	art.-no.
10	90202	35	90205
16	90203	50	90206
25	90204		



Dies WM-shape

for crimping cable lugs and connectors of the **euro-series** (page 24 - 32).

mm ²	art.-no.	mm ²	art.-no.
6	90432	25	90253
10	90251	35	90254
16	90252	50	90255



Dies hexagonal-shape

for crimping compression copper cable lugs DIN 46 235 (page 34 - 38), compression copper connectors DIN 46 267 part 1 (page 39) and compression aluminium and aluminium/ copper cable lugs and connectors (page 42 - 45).

die code no.	Cu mm ²	Al mm ²	art.-no.
5	6	–	90208
6	10	–	90209
8	16	–	90210
10	25	16	90211
12	35	25	90212
14	50	35	90213

Compression dies for MP 13



Dies mandrel-shape

for crimping noninsulated terminals DIN 46 234 (page 50 - 53), pin terminals DIN 46 230 (page 54) and connectors DIN 46 341 part 1 (page 55). Upper- and lower dies are necessary!

designation	mm ²	art.-no.
upper die	6	90214
	10	90215
	16	90216
	25	90217
	35	90218
lower die	6 – 35	90219



Dies

for crimping insulated terminals (page 59 - 61).

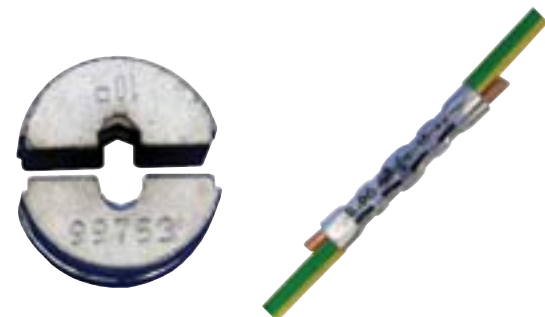
mm ²	art.-no.
10	90221
16	90222
25	90223



Dies square-shape

for crimping cord-end-sleeves (page 76 - 80).
crimping width: 18 mm

mm ²	art.-no.	mm ²	art.-no.
6	90225	25	90228
10	90226	35	90229
16	90227		



Dies

for crimping WEITKOWITZ oval-connectors (page 15).
crimping profile: wave-shape crimping

mm ²	art.-no.
6	99752
10	99753



Transport case

art.-no.: 90248

Varnished steel box for keeping the MP 13 and up to 16 pairs of dies.

measurements: 295 x 180 x 55 mm

Hand-operated mechanical compression tool MP 1 without dies



Robust and handy precision tool with **ratchet gearing** for crimping cable lugs and connectors up to 120 mm². The locking device guarantees a constantly optimal crimping depth and quality.

Advantages:

- compact construction form, only 420 mm long
- small weight, only 2.4 kg
- press capacity: approx. 55 kN
- hinged head
- low effort due to ratchet gearing
- mechanical, therefore no problems because of dirt or oil leakage

art.-no.: 90300



Dies WM-shape

for crimping WEITKOWITZ cable lugs and connectors of the **standard-series** (page 7 - 15).
Not suitable for cable lugs from other manufacturers!

mm ²	art.-no.
10/70	90301
16/35	90302
25/50	90303
95	90304
120	90305



Dies WM-shape

for crimping cable lugs and connectors of the **euro-series** (page 24 - 32).

mm ²	art.-no.
6	90430
10/70	90390
16/35	90398
25/50	90393
95	90394
120	90395

Compression dies for MP 1



Dies WM-shape

for crimping WEITKOWITZ cable lugs and connectors for **finewiring conductors** (page 18 - 22).
Not suitable for cable lugs of other manufacturers!

mm ²	art.-no.
10f/25f	90331
16f/35f	90332
50f	90333
70f	90334
95f	90335



Dies hexagonal-shape

for crimping compression copper cable lugs DIN 46 235 (page 34 - 38), compression copper connectors DIN 46 267 part 1 (page 39) and compression aluminium and aluminium/ copper cable lugs and connectors (page 42 - 45)

die code no.	Cu mm ²	Al mm ²	art.-no.
5	6	–	90310
6/16	10/70	–/50	90311
8/12	16/35	–/25	90312
10/14	25/50	16/35	90313
18	95	70	90314
20	120	–	90315



Dies mandrel-shape

for crimping noninsulated terminals DIN 46 234 (page 50 - 53), pin terminals DIN 46 230 (page 54) and connectors DIN 46 341 part 1 (page 55). Upper- and lower dies are necessary!

Designation	mm ²	art.-no.
upper die:	6	90763
fourfold die	10 - 35	90765
fourfold die	16 - 50	90766
lower die:		
stepped stamp	6 - 70	90762



Dies

for crimping insulated terminals
(page 59 - 61).

mm ²	art.-no.
10	90320
16	90321
25	90322
35	90323
50	99696
70	99697

Compression dies for MP 1



Dies square-shape

for crimping cord-end-sleeves (page 76 - 80).
crimping width: 19 mm

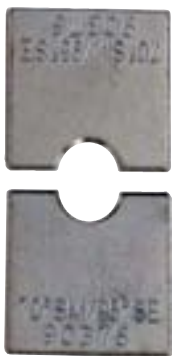
mm ²	art.-no.
6	90324
10	90325
16	90326
25	90327
35	90328
50	90329



Dies

for crimping WEITKOWITZ oval-connectors (page 15).
crimping profile: wave-shape crimping

mm ²	art.-no.
6	99754
10	99755



Dies for round forming

for rounding sector-shaped copper and aluminium conductors
crimping width: 12 mm

mm ² sm	mm ² se	art.-no.
10	–	90371
16	–	90372
25	35	90373
35	50	90374
50	70	90375
70	95	90376
95	120	90377
120	150	90378

sm = stranded conductors

se = solid conductors



Transport case

art.-no.: 91112

Varnished steel box for keeping the
MP 1 and up to 21 pairs of dies.

Hand-operated mechanical compression tool MP 2 without dies



Robust and handy precision tool with **ratchet gearing** for crimping cable lugs and connectors up to 240 mm². The locking device guarantees a constantly optimal crimping depth and quality.

Advantages:

- compact construction form, only 530 mm long
- small weight, only 4.7 kg
- press capacity: approx. 100 kN
- hinged head
- low effort due to ratchet gearing
- mechanical, therefore no problems because of dirt or oil leakage

art.-no.: 90260



Dies WM-shape

for crimping WEITKOWITZ cable lugs and connectors of the **standard-series** (page 7 - 15).
Not suitable for cable lugs from other manufacturers!

mm ²	art.-no.
10	90604
16	90605
25	90606
35	90607
50	90263
70	90264

mm ²	art.-no.
95	90265
120	90266
150	90267
185	90268
240	90269



Dies WM-shape

for crimping cable lugs and connectors of the **euro-series** (page 24 - 32).

mm ²	art.-no.
6	90431
10	90272
16	90273
25	90234
35	90235
50	90236

mm ²	art.-no.
70	90237
95	90238
120	90239
150	90240
185	90268
240	90269

Compression dies for MP 2



Dies WM-shape

for crimping WEITKOWITZ cable lugs and connectors for **finewiring conductors** (page 18 - 22).
Not suitable for cable lugs from other manufacturers!

mm ²	art.-no.	mm ²	art.-no.
10 f	90440	70 f	90445
16 f	90441	95 f	90446
25 f	90442	120 f	90447
35 f	90443	150 f	90448
50 f	90444	185 f	90449



Dies hexagonal-shape

for crimping compression copper cable lugs DIN 46 235 (page 34 - 38), compression copper connectors DIN 46 267 part 1 (page 39) and compression aluminium and aluminium/ copper cable lugs and connectors (page 42 - 45)

die code no.	Cu mm ²	Al mm ²	art.-no.
5	6	—	90278
6	10	—	90279
8	16	—	90280
10	25	16	90281
12	35	25	90282
14	50	35	90283
16	70	50	90284
18	95	70	90285
20	120	—	90286
22	150	95 + 120	90287
25	185	150	90288
28	240	185	90289
32	—	240	90291



Dies mandrel-shape

for crimping noninsulated terminals DIN 46 234 (page 50 - 53), pin terminals DIN 46 230 (page 54) and connectors DIN 46 341 part 1 (page 55).

Upper- and lower dies are necessary!

designation	mm ²	art.-no.
lower die	6 - 70	90608
	95 - 150	90609
upper die	6	90259
	10	90610
	16	90611
	25	90612
	35	90613
	50	90614
	70	90615
	95	90256
	120	90257
	150	90258

Compression dies for MP 2



Dies for crimping insulated terminals (page 59 - 61)

mm ²	art.-no.
10	90461
16	90462
25	90463
35	90464

mm ²	art.-no.
50	90465
70	90466
95	90467
120	90468



Dies square-shape for crimping cord-end-sleeves (page 77 - 80). crimping width: 24 mm

mm ²	art.-no.
10	90633
16	90634
25	90635
35	90636
50	90637

mm ²	art.-no.
70	90638
95	90639
120	90640



Dies for round forming for rounding sector-shaped copper and aluminium conductors crimping width: 16 mm

mm ² sm	mm ² se	art.-no.
10	–	90620
16	–	90621
25	35	90622
35	50	90623
50	70	90624
70	95	90625
95	120	90626
120	150	90627
150	185	90628
185	240	90629
240	300	90630

sm = stranded conductors

se = solid conductors



Transport case

art.-no.: 90299

Varnished steel box for keeping the
MP 2 and up to 33 pairs of dies.

measurements: 625 x 250 x 70 mm

Hand-operated mechanical compression tool MHP 10/400 without dies



Highly precise compression tool with ratchet gearing for crimping cable lugs and connectors. The locking device prevents opening the tool too early and therefore guarantees a constant crimping depth and quality.

This tool convinces by its unusual robustness and its enormous longevity. Its press capacity is about 100 kN; therefore it is possible to crimp even big cross sections without any efforts.

Application range:

tubular cable lugs, standard series: 10 - 400 mm²
compression cable lugs DIN 46 235: 10 - 300 mm²
aluminium cable lugs: 16 - 240 mm²

length: 650 mm
width: 85 mm
weight: 4.8 kg

art.-no.: 90340



Dies WM-shape

for crimping WEITKOWITZ cable lugs and connectors of the **standard-series** (page 7 - 15).
Not suitable for cable lugs from other manufacturers!

mm ²	art.-no.	mm ²	art.-no.
10/25	90341	150	90347
16/35	90342	185	90348
50	90343	240	90349
70	90344	300	90350
95	90345	400	90358
120	90346		



Dies WM-shape

for crimping cable lugs and connectors of the **euro-series** (page 24 - 32).

mm ²	art.-no.	mm ²	art.-no.
10/25	90419	120	90426
16/35	90420	150	90427
50	90423	185	90348
70	90424	240	90349
95	90425	300	90350
		400	90358

Compression dies for 10/400



Dies hexagonal-shape

for crimping compression copper cable lugs DIN 46 235 (page 34 - 38), compression copper connectors DIN 46 267 part 1 (page 39) and compression aluminium and aluminium/ copper cable lugs and connectors (page 42 - 45)

die code no.	cross section Cu mm ²	cross section Al mm ²	art.-no.
6	10	–	90359
8	16	–	90360
10	25	16	90361
12	35	25	90362
14	50	35	90363
16	70	50	90364
18	95	70	90365
20	120	–	90366
22	150	95 + 120	90367
25	185	150	90368
28	240	185	90369
32	300	240	90370



Dies for round forming

for rounding sector-shaped copper and aluminium conductors

crimping width: 25 mm

cross section mm ²		art.-no.
25 sm	35 se	90381
35 sm	50 se	90382
50 sm	70 se	90383
70 sm	95 se	90384
95 sm	120 se	90385
120 sm	150 se	90386
150 sm	185 se	90387
185 sm	240 se	90388
240 sm	300 se	90389

sm = stranded conductors

se = solid conductors



Transport case

art.-no.: 90399

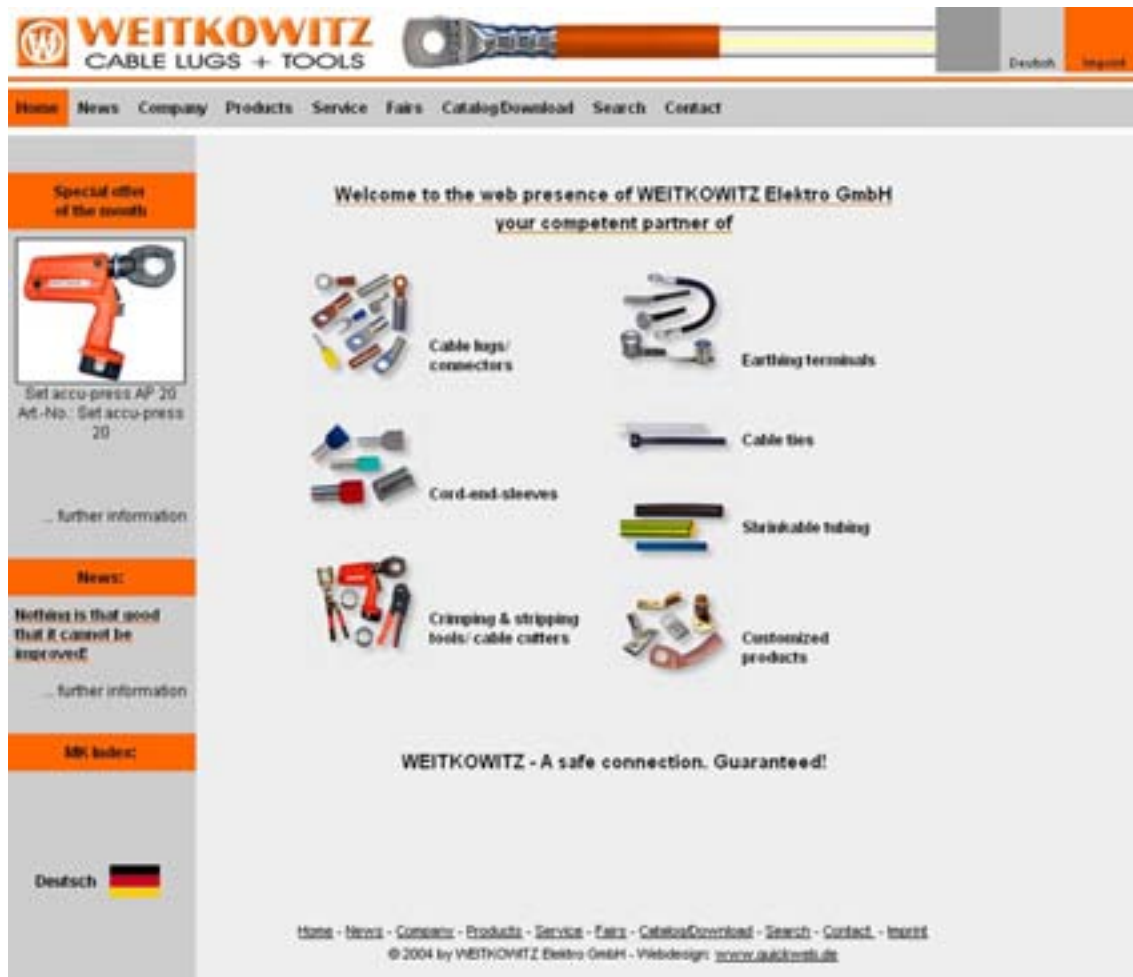
Varnished steel box for keeping the MHP 10/400 and up to 24 pairs of dies.

measurements: 665 x 290 x 100 mm

Come and see our homepage:

<http://www.weitkowitz.de>

There you will find a number of useful information
as well as our „special offer of the month“!



Hydraulic crimping and cutting tools

Battery-powered compression tool AP 10

without dies



Battery-powered hydraulic compression tool for crimping cable lugs and connectors up to 240 mm².

- Advantages:**
- extremely quick processing due to a two-stage hydraulic pump
 - 180° revolving head with quick opening and closing
 - integrated pressure relief valve, false pressings cause no damage at tool nor dies
 - high capacity due to 3.0 Ah battery: approx. 120 pressings of 185 mm² with one charging
 - an electronic speed regulator integrated in the power button allows an optimal positioning of the pressing
 - high quality NiMh 14.4 voltage 3.0 Ah rechargeable battery
 - light emitting diode serves for controlling battery capacity, crimping proceeding and service intervals
 - eyelet for balancer
 - universal usage: dies for all versions of cable lugs are available
 - possibility to use the dies of the former HP1 and AP 1 due to the multi-function head
 - **delivery completely with battery, battery charger and transport steel case (without dies)**

Measurements transport case: 570 x 420 x 103 mm

Technical data:	press capacity:	approx. 55 kN
	operating voltage:	14.4 Volt
	tool measurements:	B 90 x L 360 x H 330 mm
	weight:	4.87 kg (incl. battery)
	battery charger:	220 – 240V~ 60W 50 – 60Hz

art.-no.: 91120



Replacement battery NiMh 14.4 Volt 3.0 Ah

art.-no.: 91123

Fast battery charger 220 – 240V~ 220W 50 – 60Hz

art.-no.: 91125

reduces time of loading to approx. 27 minutes

Hand-operated hydraulic compression tool HP 10

without dies



Hand-operated hydraulic compression tool for crimping cable lugs and connectors up to 240 mm².

- Advantages:**
- extremely quick processing due to a two-stage hydraulic pump
 - extremely light, handy and compact construction form
 - 180° revolving head with quick opening and closing
 - integrated pressure relief valve, false pressings cause no damage at tool nor dies
 - universal usage: dies for all versions of cable lugs are available
 - possibility to use the dies of the former HP1 and AP 1 due to the multi-function head

Technical data:	press capacity:	approx. 55 kN
	weight:	2.45 kg
	length:	425 mm

art.-no.: 91110

**transport case out of steel
for HP 10 and dies compare page 130.**

Compression dies for AP 10 and HP 10



Dies WM-shape

for crimping WEITKOWITZ cable lugs and connectors of the **standard-series**.

Not suitable for cable lugs from other manufacturers!

mm ²	art.-no.	mm ²	art.-no.
10/70	91302	120	91306
16/35	91303	150	91307
25/50	91304	185	91308
95	91305	240	91309



Dies WM-shape

for crimping cable lugs and connectors of the **euro-series**.

mm ²	art.-no.	mm ²	art.-no.
6	91315	120	91320
10/70	91316	150	91321
16/35	91317	185	91308
25/50	91318	240	91309
95	91319		



Dies WM-shape

for crimping WEITKOWITZ cable lugs and connectors for **finewiring conductors**.

Not suitable for cable lugs from other manufacturers!

mm ²	art.-no.	mm ²	art.-no.
10f/25f	91330	95f	91334
16f/35f	91331	120f	91335
50f	91332	150f	91336
70f	91333	185f	91337



Dies hexagonal-shape

for crimping compression copper cable lugs DIN 46 235, compression copper connectors DIN 46 267 part 1 and compression aluminium and aluminium/ copper cable lugs and connectors

die code no.	Cu mm ²	Al mm ²	art.-no.
5	6	—	91343
6/16	10/70	—/50	91344
8/12	16/35	—/25	91345
10/14	25/50	16/35	91346
18	95	70	91347
20	120	—	91348
22	150	95 + 120	91349
25	185	150	91350



Dies mandrel-shape

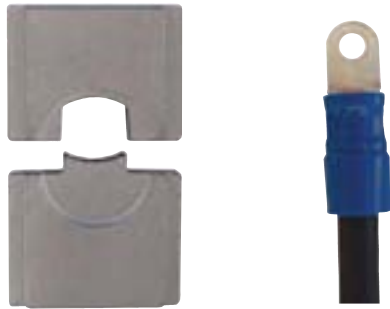
for crimping noninsulated terminals DIN 46 234.

pin terminals DIN 46 230 and connectors DIN 46 341

Upper- and lower dies are necessary!

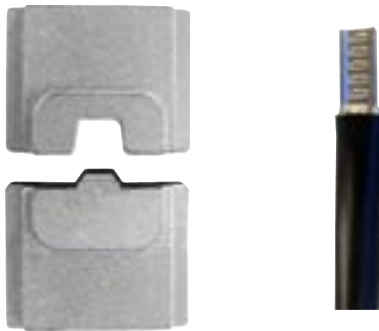
	designation	mm ²	art.-no.
single die	upper die	6	91361
double die	upper die	10/70	91362
double die	upper die	16/35	91363
double die	upper die	25/50	91364
single die	upper die	95	91365
single die	upper die	120	91366
stepped stamp	lower die	6 - 70	91357
stepped stamp	lower die	95 - 120	91358

Compression dies for AP 10 and HP 10



Dies for crimping insulated terminals

mm ²	art.-no.
10	91372
16	91373
25	91374
35	91375
50	91376
70	91377



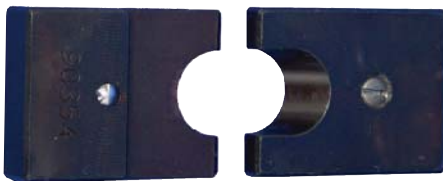
Dies square-shape for crimping cord-end-sleeves crimping width: 24 mm

mm ²	art.-no.
6	91383
10	91384
16	91385
25	91386
35	91387
50	91388
70	91389
95	91390
120	91391



Dies for round forming for rounding sector-shaped copper and aluminium conductors crimping width: 12 mm

mm ² sm	mm ² se	art.-no.
10	–	91450
16	–	91451
25	35	91452
35	50	91453
50	70	91454
70	95	91455
95	120	91456
120	150	91457
150	185	91458
185	240	91459



Cutting die

art.-no. 90354

for coarsewiring aluminium and copper cables without steel insertion up to 28 mm Ø.



Transport case

art.-no. 91112

Varnished steel box for keeping the HP10 and up to 21 pairs of dies.

Battery-powered compression tool AP 20

without dies



Battery-powered hydraulic compression tool for crimping cable lugs and connectors up to 300 mm².

- Advantages:**
- extremely quick processing due to a two-stage hydraulic pump
 - wide application range up to 300 mm²
 - 180° revolving head with quick opening and closing
 - integrated pressure relief valve, false pressings cause no damage at tool nor dies
 - high capacity due to 3.0 Ah battery: approx. 120 pressings of 185 mm² with one charging
 - an electronic speed regulator integrated in the power button allows an optimal positioning of the pressing
 - high quality NiMh 14.4 voltage 3.0 Ah rechargeable battery
 - light emitting diode serves for controlling battery capacity, crimping proceeding and service intervalls
 - eyelet for balancer
 - universal usage: dies for all versions of cable lugs are available
 - **delivery completely with battery, battery charger and transport steel case (without dies)**

Measurements transport case: 570 x 420 x 103 mm

Technical data:	press capacity:	approx. 62 kN
	operating voltage:	14.4 Volt
	tool measurements:	B 90 x L 365 x H 310 mm
	weight:	5.10 kg (incl. battery)
	battery charger:	220 – 240V~ 60W 50 – 60Hz
	loading time:	approx. 75 minutes

art.-no.: 91140



Replacement battery NiMh 14.4 Volt 3.0 Ah

art.-no.: 91123

Fast battery charger 220 – 240V~ 220W 50 – 60Hz

art.-no.: 91125

reduces time of loading to approx. 27 minutes

Hand-operated mechanical compression tool HP 20

without dies



Hydraulic hand-operated compression tool for crimping cable lugs and connectors up to 300 mm².

- Advantages:**
- extremely quick processing due to a two-stage hydraulic pump
 - extremely light, handy and compact construction form
 - wide application range up to 300 mm²
 - 180° revolving head with quick opening and closing
 - integrated pressure relief valve, false pressings cause no damage at tool nor dies
 - universal usage: dies for all versions of cable lugs are available

Technical data:	press capacity:	approx. 62 kN
	weight:	2.85 kg
	length:	425 mm

art.-no.: 91130

**transport case out of steel
for HP 20 and dies compare page 133.**

Compression dies for AP 20 and HP 20



Dies WM-shape

for crimping WEITKOWITZ cable lugs and connectors of the **standard-series**.

Not suitable for cable lugs from other manufacturers!

mm ²	art.-no.	mm ²	art.-no.	mm ²	art.-no.
10	91602	50	91606	150	91610
16	91603	70	91607	185	91611
25	91604	95	91608	240	91612
35	91605	120	91609	300	91613



Dies WM-shape

for crimping cable lugs and connectors of the **euro-series**.

mm ²	art.-no.	mm ²	art.-no.	mm ²	art.-no.
6	91619	50	91624	185	91611
10	91620	70	91625	240	91612
16	91621	95	91626	300	91613
25	91622	120	91627		
35	91623	150	91628		



Dies WM-shape

for crimping WEITKOWITZ cable lugs and connectors for **finewiring conductors**.

Not suitable for cable lugs from other manufacturers!

mm ²	art.-no.	mm ²	art.-no.	mm ²	art.-no.
10f	91638	50f	91642	150f	91646
16f	91639	70f	91643	185f	91647
25f	91640	95f	91644	240f	91648
35f	91641	120f	91645		



Dies hexagonal-shape

for crimping compression copper cable lugs DIN 46235, compression copper connectors DIN 46267 part 1, compression aluminium and aluminium/ copper cable lugs and connectors.

die code no.	Cu mm ²	Al mm ²	art.-no.
5	6	–	91654
6	10	–	91655
8	16	–	91656
10	25	16	91657
12	35	25	91658
14	50	35	91659
16	70	50	91660
18	95	70	91661
20	120	–	91662
22	150	95 + 120	91663
25	185	150	91664
28	240	185	91665
32	300	240	91666

Compression dies for AP 20 und HP 20



Dies mandrel-shape

for crimping noninsulated terminals DIN 46234,
pin-terminals DIN 46230 and connectors DIN 46341 part 1
Upper- and lower dies are necessary!

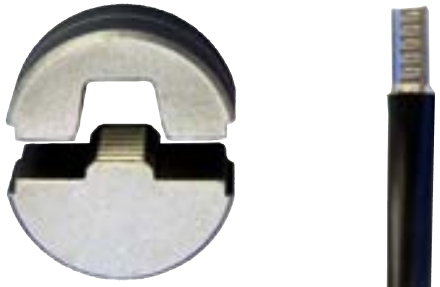
designation	mm ²	art.-no.	designation	mm ²	art.-no.
upper die	6	91678	upper die	70	91684
upper die	10	91679	upper die	95	91685
upper die	16	91680	upper die	120	91686
upper die	25	91681			
upper die	35	91682	lower die	6 - 70	91672
upper die	50	91683	lower die	95 - 120	91673



Dies

for crimping insulated terminals

mm ²	art.-no.	mm ²	art.-no.
10	91693	50	91697
16	91694	70	91698
25	91695	95	91699
35	91696		



dies square-shape

for crimping insulated and noninsulated cord-end-sleeves
crimping width: 22 mm

mm ²	art.-no.	mm ²	art.-no.
6	91705	35	91709
10	91706	50	91710
16	91707	70	91711
25	91708	95	91712



Dies for round-forming

for rounding sector-shaped copper and aluminium conductors
crimping width: 12 mm

mm ² sm	mm ² se	art.-no.	mm ² sm	mm ² se	art.-no.
10	–	91718	95	120	91724
16	–	91719	120	150	91725
25	35	91720	150	185	91726
35	50	91721	185	240	91727
50	70	91722	240	300	91728
70	95	91723			

sm = stranded conductors

se = solid conductors



Transport case

art.-no. 91112

Varnished steel box for keeping the
HP 20 and up to 21 pairs of dies

Battery-powered compression tool AP 30

without dies

Battery-powered hydraulic compression tool for crimping cable lugs and connectors up to 400 mm².

- Advantages:**
- extremely quick processing due to a two-stage hydraulic pump
 - 360° revolving head with quick opening and closing
 - wide application range up to 400 mm²
 - suitable for cutting cables up to 28 mm outside diameter
 - integrated pressure relief valve, false pressings cause no damage at tool nor dies
 - high capacity due to 3.0 Ah battery: approx. 100 pressings of 185 mm² with one charging
 - an electronic speed regulator integrated in the power button allows an optimal positioning of the pressing
 - high quality NiMh 14.4 voltage 3.0 Ah rechargeable battery
 - light emitting diode serves for controlling battery capacity, crimping proceeding and service intervals
 - eyelet for balancer
 - universal usage: dies for all versions of cable lugs are available
 - **delivery completely with battery, battery charger and transport steel case (without dies)**



Measurements transport case: 570 x 420 x 103 mm

Technical data:	press capacity:	approx. 80 kN
	operating voltage:	14.4 Volt
	tool measurements:	B 90 x L 435 x H 320 mm
	weight:	6.65 kg (incl. battery)
	battery charger:	220 – 240V~ 60W 50 – 60Hz
	loading time:	approx. 75 minutes

art.-no.: 91160

Replacement battery NiMh 14.4 Volt 3.0 Ah

art.-no.: 91123

Fast battery charger 220 – 240V~ 220W 50 – 60Hz

art.-no.: 91125

reduces time of loading to approx. 27 minutes



Hydraulic hand-operated compression tool HP 30

without dies

Hydraulic hand-operated compression tool for crimping cable lugs and connectors up to 400 mm².

- Advantages:**
- extremely quick processing due to a two-stage hydraulic pump
 - wide application range up to 400 mm²
 - hinged head, therefore trouble-free working even at heavily accessible places
 - 360° revolving head with quick opening and closing
 - integrated pressure relief valve, false pressings cause no damage at tool nor dies
 - universal usage: dies for all versions of cable lugs are available



Technical data:	press capacity:	approx. 62 kN
	weight:	5.2 kg
	length:	600 mm

art.-no.: 91150

**transport case out of steel
for HP 30 and dies compare page 138.**

Hydraulic compression head HPW 15



Hydraulic compression head for crimping cable lugs and connectors up to 240 mm².

Advantages:

- C-head for a quick and easy insertion and removal of cable lugs and connectors, perfectly suitable for serial crimping
- quick connection because of plug-in coupling free of leakage

Technical data:

hydraulic pressure:	max. 630 bar
press capacity:	approx. 80 kN
length:	335 mm
weight:	3.6 kg

art.-no.: 90602

Hydraulic compression head HPW 17



Hydraulic compression head for crimping cable lugs and connectors up to 400 mm².

Cutting dies for coarsewiring and finewiring cables up to 28 mm outside diameter are available.

Advantages:

- wide application range: cable lugs and connectors 6 - 400 mm²
- light and handy, compact construction
- hinged head, therefore quick insertion and removal of cable lugs and dies
- cutting dies for cables up to 28 mm outside diameter are available
- quick connection via plug-in coupling free of leakage

Technical data:

hydraulic pressure:	max. 630 bar
press capacity:	approx. 80 kN
length:	300 mm
weight:	3.8 kg

art.-no.: 90651

Clamping jaws for HPW 15 and HPW 17



Clamping jaws for a trouble free clamping of HPW 15 and HPW 17 into a vice.

art.-no.: 90601

Compression dies for AP 30, HP 30, HPW 15 and HPW 17



Dies WM-shape

for crimping WEITKOWITZ cable lugs and connectors of the **standard-series** (page 7 - 15).
Not suitable for cable lugs from other manufacturers!

mm ²	art.-no.	mm ²	art.-no.
10	90604	120	90266
16	90605	150	90267
25	90606	185	90268
35	90607	240	90269
50	90263	300	90270
70	90264	400	90271
95	90265		

HPW 15 only from 10 to 240 mm²!



Dies WM-shape

for crimping cable lugs and connectors of the **euro-series** (page 24 - 32).

mm ²	art.-no.	mm ²	art.-no.
6	90431	95	90238
10	90272	120	90239
16	90273	150	90240
25	90234	185	90268
35	90235	240	90269
50	90236	300	90270
70	90237	400	90271

HPW 15 only from 6 to 240 mm²!



Dies WM-shape

for crimping WEITKOWITZ cable lugs and connectors for **finewiring conductors** (page 18 - 22).
Not suitable for cable lugs from other manufacturers!

mm ²	art.-no.	mm ²	art.-no.
10f	90440	95f	90446
16f	90441	120f	90447
25f	90442	150f	90448
35f	90443	185f	90449
50f	90444	240f	90450
70f	90445		

HPW 15 only from 10f to 185f mm²!



Dies

for crimping insulated terminals (page 59 - 61).

mm ²	art.-no.	mm ²	art.-no.
10	90461	70	90466
16	90462	95	90467
25	90463	120	90468
35	90464	150	90469
50	90465		

HPW 15 only from 10 to 120 mm²!

Compression dies for AP 30, HP 30, HPW 15 and HPW 17



Dies hexagonal-shape

for crimping compression copper cable lugs DIN 46 235 (p. 34 - 38), compression copper connectors DIN 46 267 part 1 (p. 39 - 40) and compression aluminium and aluminium/ copper cable lugs and connectors (p. 42 - 45)

die code no.	Cu mm ²	Al mm ²	art.-no.
5	6	–	90278
6	10	–	90279
8	16	–	90280
10	25	16	90281
12	35	25	90282
14	50	35	90283
16	70	50	90284
18	95	70	90285
20	120	–	90286
22	150	95 + 120	90287
25	185	150	90288
28	240	185	90289
32	300	240	90290
34	–	300	90292

HPW 15 only from K 5 to K 28!



Dies mandrel-shape

for crimping noninsulated terminals DIN 46 234 (page 50 - 53), pin terminals DIN 46 230 (page 54) and connectors DIN 46 341 part 1 (page 55). Upper- and lower dies are necessary!

designation	mm ²	art.-no.
lower die	6 - 70	90608
	95 - 150	90609
	185 - 240	90616
upper die	6	90259
	10	90610
	16	90611
	25	90612
	35	90613
	50	90614
	70	90615
	95	90256
	120	90257
	150	90258
	185	90617
	240	90618

HPW 15 only from 6 to 150 mm²!

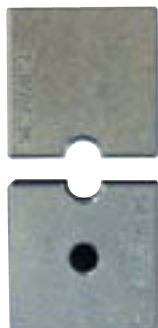


Dies square-shape

for crimping insulated/ noninsulated cord-end-sleeves (p. 76-80), Crimping width: 24 mm (from 10 - 120 mm²), 38 mm (from 150 - 240 mm²).

mm ²	art.-no.	mm ²	art.-no.
10	90633	70	90638
16	90634	95	90639
25	90635	120	90640
35	90636	150	90641
50	90637	185	90642
		240	90643

Compression dies for AP 30, HP 30, HPW 15 and HPW 17



Dies for round forming

for rounding sector-shaped copper and aluminium conductors
crimping width: 16 mm

mm ² sm	mm ² se	art.-no.
10	–	90620
16	–	90621
25	35	90622
35	50	90623
50	70	90624
70	95	90625
95	120	90626
120	150	90627
150	185	90628
185	240	90629
240	300	90630

sm = stranded conductors

se = solid conductors



Dies for compression copper cable lugs 2-conductor-version

for crimping compression copper cable lugs
2-conductor-version (page 38)

crimping width: 12 mm (2 crimpings at each cable lug necessary)

mm ²	art.-no.
2 x 70	99805
2 x 95	99640
2 x 120	99641



Dies for compression tab-connectors, H-shape, copper

for crimping compression tab connectors, H-shape
(page 40)

crimping width: 70/70 mm² = 12 mm

95/95 mm² = 5 mm

120/120 mm² = 5 mm

mm ²	art.-no.
70/70	99805
95/95	99782
120/120	99633

Not suitable for HPW 15 !



Cutting die

art.-no.: 90654

for coarsewiring Al- and Cu
cables without steel insertion
up to 28 mm Ø.

Cutting die

art.-no.: 90655

for finewiring copper cables
up to 28 mm Ø.

These dies are not suited for cutting solid conductors. Please ask
for our special solutions.

Not suitable for HPW 15 !



Transport case

art.-no.: 90299

Varnished steel box for keeping the
HP 30 and up to 33 pairs of dies.

measurements: 625 x 250 x 70 mm

Hydraulic pumps and accessories



Two stage hydraulic pump

art.-no.: 90401

Hydraulic pressure max. 630 bar,
with safety valve und 3 m high pressure hose
weight: 10 kg, length: 68 cm, width: 20 cm



Electro-hydraulic 3-cylinder-radial-piston-pump with transport cart

art.-no.: 90407

Delivery rate 0.82 l/min., hydraulic pressure 630 bar,
voltage **3 x 400 V, 50 Hz**, nominal capacity 0.55 kW,
delivery complete with transport cart, electric control, motor protection
switch, pedal switch with 3-point-safety control, safety valve, magnetic val-
ve and 3 m high-pressure hose.
Without press head.
weight: 30.4 kg

like above, but **version 230, 50 Hz**, delivery rate 0.52 l/min.

art.-no.: 90408

like above, but with **positioning** = as soon as the pedal isn't pedaled any
more the pump stops. But the oil reflux starts not until a second pedal is
pressed. So the bus bar punching unit and the bus bar bending unit can
be positioned exactly by repeated pressings of the foot pedal.

Voltage: **3x400 V, 50 Hz**, delivery rate 0.82 l/min., **art.-no.: 90404**

Voltage: **230 V, 50 Hz**, delivery rate 0.52 l/min., **art.-no.: 90411**

Further versions are available on request.



Electro-hydraulic 3-cylinder-radial-piston-pump with rack

art.-no.: 90406

Delivery rate 0.82 l/min., hydraulic pressure 630 bar,
Voltage **3 x 400 V, 50 Hz**, nominal capacity 0.55 kW,
Delivery complete with rack for carrying, electric control, motor protection
switch, pedal switch with 3-point-safety control, safety valve, magnetic
valve and 3 m high-pressure hose.
Without press head.
weight: 24 kg

like above, but **version 230 V, 50 Hz**, oil delivery 0.52 l/min.

art.-no.: 90405

High pressure hose with steel mesh inlay, buckling protector and coupling

length: 3 m **art.-no.: 90409**

length: 5 m **art.-no.: 99955**

length: 10 m **art.-no.: 99956**

hydraulic oil, 1-litre-tin

art.-no.: 90593

hydraulic oil, 5-litre-canister

art.-no.: 90594

For replacement of oil.

Please use this special oil only.



Battery-powered hydraulic cable cutter AS 30



Battery-powered hydraulic cable cutter for cutting unifilar and multiconductor copper and aluminium cables without steel insertion up to 85 mm² outside dieamtre (e.g. aluminium-underground cable 3 x 240 mm² + 1 x 95 mm² or 1 x 630 mm², copper conductor 1 x 630 mm²)

- Advantages:**
- extremely quick processing due to a two-stage hydraulic pump
 - big cutting range up to 85 mm Ø
 - 340° revolving head
 - high capacity due to 3.0 Ah battery: approx. 35 cuttings 3 x 185 mm² Cu
 - an electronic speed regulator integrated in the power button allows an optimal control of the cutting process
 - high quality NiMh 14.4 voltage 3.0 Ah rechargeable battery
 - light emitting diode serves for controlling battery capacity and service intervalls
 - eyelet for balancer
 - **delivery completely with battery, battery charger and transport steel case (without dies)**

Measurements transport case: 610 x 360 x 115 mm

Technical data:	cutting capacity:	approx. 55 kN
	operating voltage:	14.4 Volt
	tool measurements:	B 90 x L 570 x H 320 mm
	weight:	9.42 kg (incl. battery)
	loading time:	approx. 75 minutes

art.-no.: 91180



Replacement battery NiMh 14.4 Volt 3.0 Ah

art.-no.: 91123



Fast battery charger 220 – 240V~ 220W 50 – 60Hz

art.-no.: 91125

reduces time of loading to approx. 27 minutes

Hydraulic hand-operated cable cutter HS 30



Hydraulic cable cutter for cutting multiconductor copper and aluminium cables without steel insertion up to 85 mm² outside dieamtre (e.g. Al-underground cable 3 x 240 mm² + 1 x 95 mm² or 1 x 630 mm², copper conductor 1 x 630 mm²)

- Advantages:**
- extremely quick processing due to a two-stage hydraulic pump
 - big cutting range up to 85 mm Ø
 - 330° revolving head
 - hinged head, therefore trouble-free working even at heavily accessible places
 - clean cut
 - **Delivery including a high quality sailcloth bag**

Technical data:	press capacity:	approx. 55 kN
	weight:	7.64 kg
	length:	745 mm

art.-no.: 91170

Hydraulic cutter head HKW 600



Hydraulic cable cutter for cutting copper- and aluminium conductors **even with steel insertion** up to 60 mm outside diameter (e.g. coarsewiring copper cables up to about 4x240 mm²)

Advantages:

- hinged head
- extremely stable construction
- very big press capacity

Technical data:

hydraulic pressure:	max. 630 bar
press capacity:	approx. 150 kN
length:	420 mm
weight:	7.6 kg

art.-no.: 90588

Hydraulic cutter head HKW 1000



Hydraulic cable cutter head for cutting stranded copper and aluminium conductors **without steel insertion** up to 95 mm outside diameter or coarsewiring copper cables up to about 3 x 185 mm².

Advantages:

- head can be folded
- big cutting range
- clean cut

Technical data:

hydraulic pressure:	max. 630 bar
press capacity:	approx. 80 kN
length:	530 mm
weight:	6.8 kg

art.-no.: 90590

like above but stronger version for cutting copper and aluminium conductors, with or without steel jacket up to 95 mm outside diameter. Output force like above.

Attention: Aluminium conductors with steel-core, steel cables or cables with steel-core cannot be cut.

art.-no.: 90591

**We produce special tools
designed according to your requirements**

**for example
Crimping machine ZF3**

Special machine for automatically feeding and crimping
cable lugs considering the accident prevention instruc-
tions and CE-regulations.
cross section: 6 - 25 mm²



**or our
Profile cutter with integral hand-pump HPS 50**

for cutting steel profiles
up to 2 mm thickness

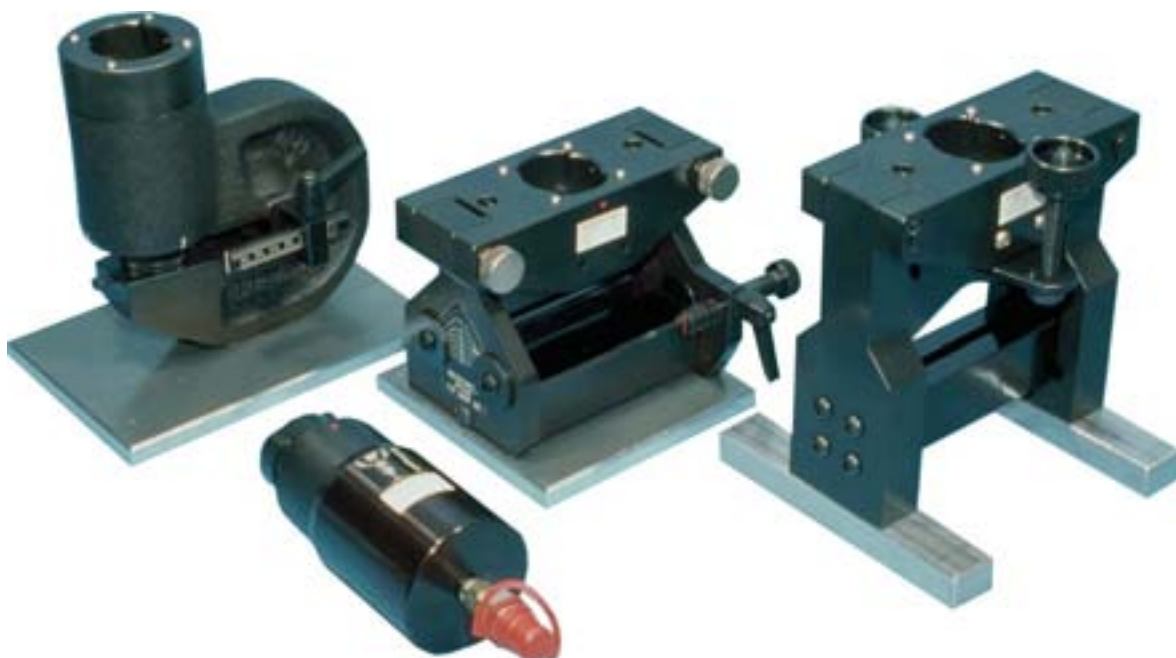


**or our
Stamp-/ punching-machine ZF4**

for fully automatic stamping and punching of
small copper-parts.

You give us your job-profile, we offer the solution!

Hydraulic working system 200 kN



Hydraulic working system, developed by WEITKOWITZ and protected with registered design. It allows the crimping of cable lugs up to 1000 mm² as well as the punching, bending and cutting of copper and aluminium bus bars.

Basic item is a cylinder with a hydraulic pressure of 630 bar and a press capacity of 200 kN. This cylinder can be easily connected to:

- a) Press head with changeable dies for cable lugs up to 1000 mm².
- b) Punching unit for punching holes up to 22 mm diameter into solid copper and aluminium bus bars with max. thickness of 12 mm. The immersion depth is 60 mm at the middle of the hole. Therefore bus bars with 120 mm width can be punched concentrically. Two millimetre long, precise depth stops and a tip at the punching pins enable a most precisely punching and a high repeat accuracy.

- c) Bending unit for bending copper and aluminium bus bars up to 120 mm width and 12 mm thickness. The tight bending radius enables a space-saving bending. The currently achieved bending angle can be read of a scale fixed at the tool.
- d) Cutting unit for cutting copper and aluminium bus bars up to 120 mm width and 12 mm thickness.

All components are delivered separately. Since the cylinder is needed only once our customers can assemble a flexible system with an excellent cost-performance ratio for crimping cable lugs as well as bending, cutting and punching bus bars.

Special design on request!

Hydraulic compression system HPW 18



Hydraulic compression head for crimping cable lugs and connectors up to 1000 mm². With the help of an adaptor all dies of HPW 15 and 17 (up to 95 mm²) can be used.

Advantages:

- small weight compared to the range of application
- excellent cost-performance ratio
- hinged head, therefore quick insertion and removal of cable lugs and dies
- extendable system for bending, punching and cutting copper and aluminium bus bars
- quick connection via plug-in coupling, free of leakage

Technical data:

hydraulic pressure:	max. 630 bar
press capacity:	approx. 200 kN
length:	385 mm
weight:	7.5 kg

The press head can be uncoupled from the cylinder. Both parts are delivered separately (therefore please order separately by using the article numbers named below). The cylinder is also suitable for being connected to the units for punching, bending and cutting aluminium and copper bus bars.

cylinder HPZ 25, art.-no.: 90662
press head HPK 18, art.-no.: 90663

Clamping jaws for a trouble free clamping of the cylinder HPW 25 into a vice.
art.-no.: 90661



Dies WM-shape

for crimping WEITKOWITZ cable lugs and connectors of the **standard-series** (page 9, 11, 13, 14, 15).

Not suitable for cable lugs from other manufacturers!

mm ²	art.-no.	mm ²	art.-no.
120	90670	300	90674
150	90671	400	90675
185	90672	500	90676
240	90673	630	90677



Dies WM-shape

only for processing cable lugs and connectors of the **euro-series** (page 25, 26, 27, 29, 31, 32).

mm ²	art.-no.	mm ²	art.-no.
120	90695	300	90674
150	90696	400	90675
185	90672	500	90676
240	90673	630	90677

Compression dies for HPW 18



Dies hexagonal-shape

for crimping compression copper cable lugs DIN 46 235 (p. 35, 37, 38), compression copper connectors DIN 46 267 part 1 (p. 39 - 40) and compression aluminium and aluminium/ copper cable lugs and connectors (p. 42 - 45)

die code no.	copper mm ²	aluminium mm ²	art.-no.
20	120	–	90681
22	150	95 + 120	90682
25	185	150	90683
28	240	185	90684
32	300	240	90685
34	–	300	90686
38	400	–	90687
42	500	–	90688
44	625	–	90690
52	800	–	90691
58	1000	–	90692



Adaptor dies

art.-no.: 90693

With the help of this adaptors all crimping dies of HPW 15 and HPW 17 up to 95 mm² (catalogue page 136 - 138) can be used with the compression system HPW 18.
 (This doesn't apply for cutting dies.)



Cutting dies

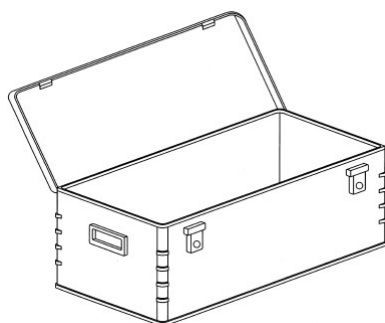
art.-no.: 90694

Cutting dies for HPK 18, applicable for

- coarsewiring aluminium and copper cables without steel insertion up to 36 mm Ø
- finewiring copper cables up to 36 mm Ø

These dies are not suited for cutting solid conductors. Please ask for our special solutions.

Werkzeugkiste



Transport case

art.-no.: 90799

Stable transport case made of aluminium sheet for keeping the footpump no. 90401 and hydraulic tools.

measurements inside approx. mm: 750 x 350 x 310
 measurements outside approx. mm: 800 x 400 x 330
 weight approx. kg: 6

Hydraulic punching unit HLW 120



Hydraulic punching unit for punching holes into copper or aluminium bus bars up to 12 mm thickness. The maximum hole depth is 60 mm. Therefore bus bars with 120 mm width can be punched concentrically.

Advantages:

- with tapped holes for screwing on a workbench
- for nearly all existing bus bars
- two accurate to a millimetre adjustable depth stops, exact centre marks and punching pins with tip enable a precise punching with a high repeat accuracy

Technical data:

hydraulic pressure:	max. 630 bar
press capacity:	ca. 200 kN
length including cylinder:	410 mm
weight including cylinder:	12.0 kg

The cylinder can be uncoupled from the punching unit. Both parts are sold separately and therefore must be ordered separately. The cylinder can also be connected to the press head HPK 18, to the bending unit HBW 120 and the cutting unit HSW 120. As a driving unit we recommend our two stage hydraulic pump no. 90401 or our electro-hydraulic 3-cylinder-radial-piston-pump with positioning no. 90404.

cylinder HPZ 25, art.-no.: 90662
punching unit HLW 120, art.-no.: 90560



Punching pins with matrix for hydraulic punching unit HLW 120, only for punching copper or aluminium bus bars.
pin with tip, surface: coated

hole diameter in mm	max. thickness of bus bars from - to	art.-no.
5.5	2 - 6 mm	90561
6.6	4 - 8 mm	90562
9.0	5 - 10 mm	90563
11.0	5 - 12 mm	90564
13.5	5 - 12 mm	90565
15.5	5 - 12 mm	90566
17.5	5 - 12 mm	90567
21.5	5 - 12 mm	90568

Hydraulic bending unit HBW 120



Hydraulic bending unit for bending solid copper or aluminium bus bars up to 120 mm width and 12 mm thickness.

Advantages:

- with tapped holes for screwing on a workbench
- with two lateral parallel-stops for exact angular positioning of bus bars
- with scale for reading off the current bending angle

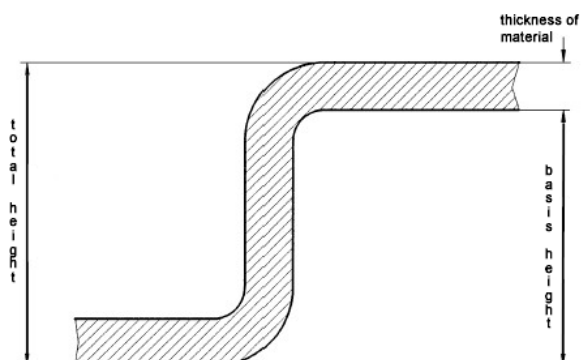
Technical data:

hydraulic pressure:	max. 630 bar
press capacity:	ca. 200 kN
length including cylinder:	345 mm
weight including cylinder:	13.7 kg

The cylinder can be uncoupled from the bending unit. Both parts are sold separately and therefore must be ordered separately. The cylinder can also be connected to the press head HPK 18, to the punching unit HLW 120 and to the cutting unit HSW 120. As a driving unit we recommend our two stage hydraulic pump no. 90401 or our electro-hydraulic 3-cylinder-radial-piston-pump with positioning no. 90404.

**cylinder HPZ 25,
hydraulic bending unit HBW 120,**

**art.-no.: 90662
art.-no.: 90556**



Dimensional limit for bending steps with the bending unit HBW 120:

basis height at least 66 mm

total height = basis height + thickness of material

bending angle: 8 mm

Hydraulic cutting unit HSW 120



Hydraulic cutting unit for cutting solid copper and aluminum bus bars up to 120 width and 12 mm thickness.

Advantages:

- great cutting capacity
- level and precise cut

Technical data:

hydraulic pressure:	max. 630 bar
press capacity:	approx. 200 kN
length including Zylinder:	400 mm
weight including Zylinder:	13.1 kg

The cylinder can be uncoupled from the cutting unit. Both parts are sold separately and therefore must be ordered separately. The cylinder can also be connected to the press head HPK 18, to the punching unit HLW 120 and to the bending unit HBW 120.

**cylinder HPZ 25,
cutting unit HSW 120,**

**art.-no.: 90662
art.-no.: 90558**



Work bench for HSW 120

Work bench for precise, right angled cutting of copper and aluminium bus bars up to 1200 width, with scale for segments up to 500 mm length, total length: 925 mm.

art.-no. (without HSW 120): 90559

Hydraulic punching unit HLF 100



Hydraulic punching unit for punching holes into solid and flexible bus bars up to 100 mm width and 12 mm thickness, with positioning table and hole-templates for DIN-master gauge for holes.

- Advantages:
- Two additionally assembled clamping cylinders automatically press the flexible bus bars together before the process of cutting intrinsically starts. This enables punching precise holes free of burr.
 - The positioning table combined with the hole template guarantee an exact positioning of bus bars and therefore an absolute repeat accuracy of punchings.

Technical data: hydraulic pressure: max. 630 bar
 press capacity: approx. 200 kN

The cylinder can be uncoupled from the punching unit. Both parts are sold separately and therefore must be ordered separately. The cylinder can also be connected to the bending unit HBW 120, to the cutting unit HSW 120 (only suitable for solid bus bars). As a driving unit we recommend our two stage hydraulic pump no. 90401 or our electro-hydraulic 3-cylinder-radial-piston-pump with positioning no. 90404.

cylinder HPZ 25,
hydraulic punching unit HLF 100,

art.-no.: 90662
art.-no.: 90581



Punching pins with matrix

for hydraulic punching unit HLF 100, only for punching copper- or aluminium bus bars

hole-Ø in mm	max. thickness of bus bars from - to	art.-no.
5.5	2 mm - 6 mm	90579
6.6	4 mm - 8 mm	90582
9.0	5 mm - 10 mm	90583
11.0	5 mm - 12 mm	90584
13.5	5 mm -12 mm	90585
15.5	5 mm -12 mm	90586
17.5	5 mm -12 mm	90587

Hydraulic puncher HLW 138



Hydraulic puncher HLW 138 for punching holes into sheet steel. Working cylinder complete with tie screw 19 mm and 9.5 mm and a distance bush for the punchers listed below.

Technical data: hydraulic pressure: max. 700 bar
weight without puncher: 3.6 kg

art.-no.: 90500

Spare tie screw: 9.5 mm art.-no.: 90550
19 mm art.-no.: 90551

Ball-bearing screws for hand operation

9.5 x 50 mm art.-no.: 90553
19.0 x 55 mm art.-no.: 90554
19.0 x 75 mm art.-no.: 90555

Anti-abrasion paste

This special paste prevents corrosion and jamming and therefore the premature abrasion of heavy-duty parts. Please apply thinly to all puncher screws with a brush.

Tube 7 Gramm art.-no.: 90548
Dose 120 Gramm art.-no.: 90549

Round punchers

hole-Ø mm	PG- size	metric size	rough-drill Ø mm	max. thickness of sheet steel St 37 mm	art.- no.
12.7	PG 7	M 12	11.0	1.75	90502
15.2	PG 9	–	11.0	1.75	90504
16.2	–	M 16	11.0	1.75	90505
18.6	PG 11	–	11.0	1.75	90506
20.4	PG 13	M 20	11.0	1.75	90508
22.5	PG 16	–	11.0	1.75	90510
25.4	–	M 25	11.0	1.75	90511
28.3	PG 21	–	11.0	1.75	90512
32.5	–	M 32	20.4	3.0	90513
37.0	PG 29	–	20.4	3.0	90514
40.5	–	M 40	20.4	3.0	90515
47.0	PG 36	–	20.4	3.0	90516
50.5	–	M 50	20.4	3.0	90517
54.0	PG 42	–	20.4	3.0	90518
60.0	PG 48	–	20.4	3.0	90520
63.5	–	M 63	20.4	3.0	90521

Square punchers

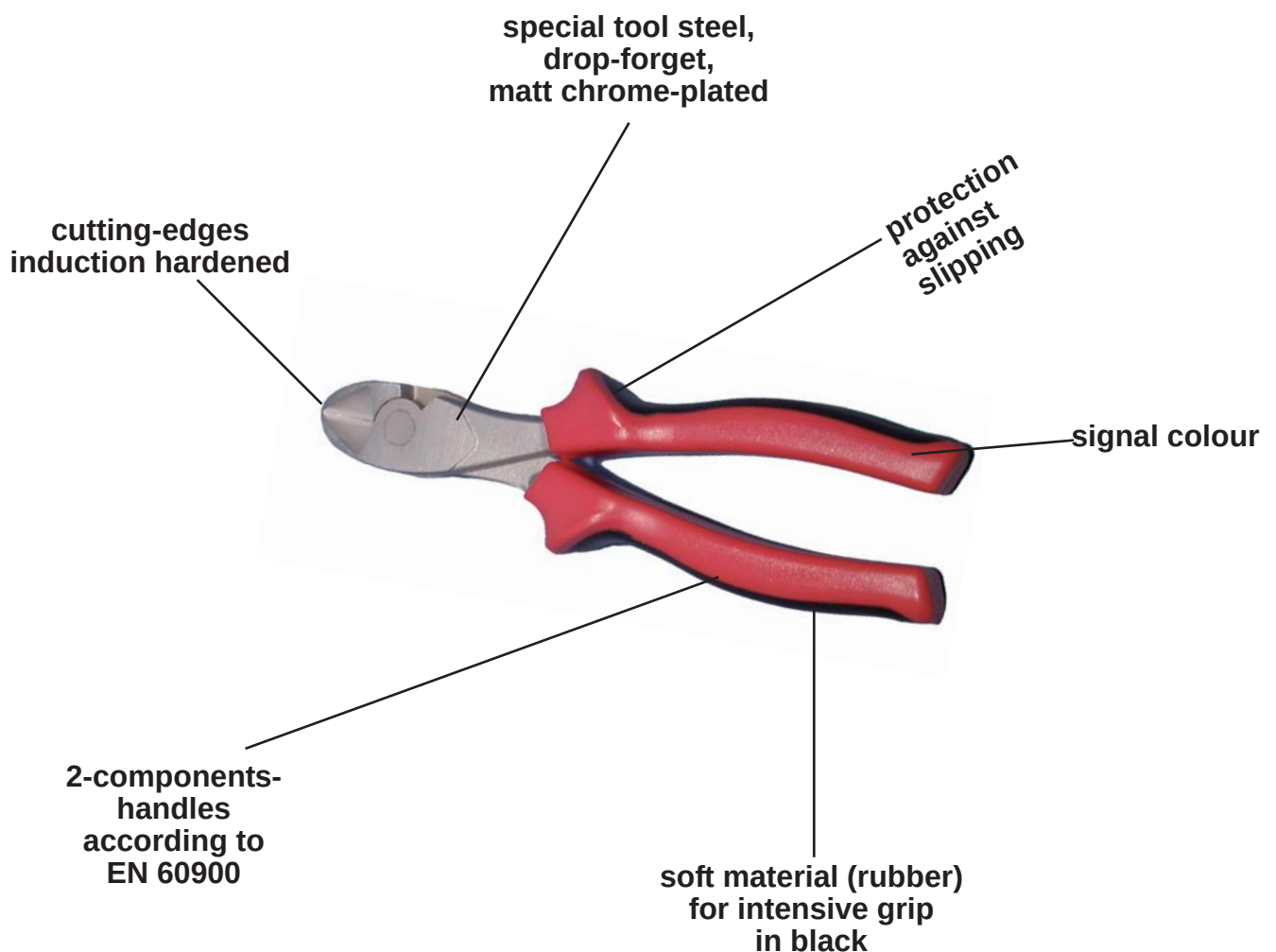
measurement of hole in mm	rough-drill Ø mm	max. thickness of sheet steel St 37 mm	art.- no.
46.0 x 46.0	25.4	3.0	90522
50.8 x 50.8	25.4	3.0	90524
68.0 x 68.0	25.4	3.0	90528
92.0 x 92.0	28.3	3.0	90530

Rectangular punchers

measurement of hole in mm	rough-drill Ø mm	max. thickness of sheet steel St 37 mm	art.- no.
22.0 x 30.0	18.6	2.0	90534
22.0 x 42.0	18.6	2.0	90536
31.7 x 34.9	18.6	2.0	90538
68.0 x 138.0	30.5	2.5	90540

The standard punchers listed above are not suitable for punching high grade steel (V2A) or similar materials! Punchers for high grade steel and special measurements on request!

Safety-tools according to VDE with GS-sign (safety tested)



The following safety tools (with exception of the waterpump pliers and the euro-tester) have successfully passed the safety tests according to DIN EN 60900 (VDE 0682 part 201) and therefore provide the best possible protection. This is documented on every tool with the following signs:



Nevertheless, the user has to consider the legislative regulations and the generally valid safety instructions.



Side cutter

art.-no.: 92101

Side cutter with induction hardened cutting edges. Very smooth because of optimal power transmission. For hard and soft wires. Special tool steel C 60, drop-forget, hardened and matt chrome-plated. With 2-components-handles and protection against slipping. With VDE-approval up to 1000 volt according to EN 60900 and GS-sign.

length: 165 mm

weight: ca. 220 g



Heavy duty side cutter

art.-no.: 92104

Heavy duty side cutter with induction hardened cutting edges for cutting piano wire. Very forceful because of optimal power transmission. Special tool steel C 60, drop-forget, hardened and matt chrome-plated. With 2-components-handles and protection against slipping. With VDE-approval up to 1000 volt according to EN 60900 and GS-sign.

length: 200 mm

weight: ca. 310 g



Combination pliers

art.-no.: 92107

Combination pliers made of special tool steel C 60, drop forget, hardened and matt chrome-plated. With induction hardened edges for cutting hard and soft wires. Very smooth because of optimal power transmission. With 2-components-handles and protection against slipping. With VDE-approval up to 1000 volt according to EN 60900 and GS-sign.

length: 185 mm weight: ca. 275 g



Chain nose radio pliers

art.-no.: 92110

Chain nose radio pliers with induction hardened cutting edges and burner hole. Version with long, straight, flat-round jaws and serrated gripping surface. For hard and soft wires. Special tool steel C 45, drop-forget, hardened and matt chrome-plated. With 2-components-handles and protection against slipping. With VDE-approval up to 1000 volt according to EN 60900 and GS-sign.

length: 205 mm

weight: ca. 210 g



Chain nose radio pliers, 45° angled

art.-no.: 92113

Chain nose radio pliers with induction hardened cutting edges and burner hole. Version with long, 45° angled, flat-round jaws and serrated gripping surface. For hard and soft wires. Special tool steel C 45, drop-forget, hardened and matt chrome-plated. With 2-components-handles and protection against slipping. With VDE-approval up to 1000 volt according to EN 60900 and GS-sign.

length: 200 mm

weight: ca. 215 g



Wire stripping pliers

art.-no.: 92116

Wire stripping pliers with opening spring and V-shape cutting edges. A screw for adjusting wires/ stranded conductors is provided. Special tool steel C 45, drop-forest, hardened and matt chrome-plated. With 2-components-handles and protection against slipping. With VDE-approval up to 1000 volt according to EN 60900 and GS-sign.

length: 165 mm

weight: ca. 180 g



Water pump pliers

art.-no.: 92119

Waterpump pliers with box-joint, 7-times adjustable. Special tool steel CV (chrome-vanadium-steel), drop-forest, hardened and matt chrome-plated. With 2-components-handles and protection against slipping. Insulation handle checked up to 1000 V, with GS-sign.

length: 250 mm

weight: ca. 375 g



VDE electricians screwdriver

High quality professional screwdriver in the signal colour red/ yellow. The ergonomic 2-components-handles guarantee high torque performance, more power drive and high performance protection for extreme torque loads. The 2-components-handles provide an extensive gripping capacity (yellow rubber) and high durability (shock-resistance red plastic). The blade is made of special tool-steel hardened, burnished and covered. With VDE-approval up to 1000 volt according to EN 60900 and GS-sign.

VDE screwdriver DIN 7437 for slot screws

width of blades / mm	thickness of blades / mm	length of blades / mm	length of blades / mm	art.-no.
2.5	0.4	75	85	92130
3.0	0.5	100	85	92133
4.0	0.8	100	95	92139
5.5	1.0	125	105	92142
6.5	1.2	150	105	92145
8.0	1.2	175	120	92148
10.0	1.6	200	120	92151

VDE screwdriver DIN 7438 type PH for cross slot screws

size	thickness of blades / mm	length of blades / mm	art.-no.
0	60	85	92154
1	80	95	92157
2	100	105	92160
3	150	120	92163
4	200	120	92166

VDE screwdriver DIN 7438 type PZ for cross slot pozidrive screws

size	thickness of blades / mm	length of blades / mm	art.-no.
0	60	85	92169
1	80	95	92172
2	100	105	92175
3	150	120	92178



Euro – tester 125-250 VAC according to EN-Norm

art.-no.: 92190

Euro-tester in accordance with the new EN-standard, with VDE-approval. With special 5 mm hand-protection clip made of insulation material and light display with dark background.

width of blade: 3 mm

length: 150 mm

Crimping instructions for standard-series
WM-crimping

Crimping instructions
Minimum crimping quantity of WEITKOWITZ cable lugs
and connectors of the **standard-series** (WM-crimping):

	96110	96121	96115	96200	96210	96218	96302	96200	96133	96140	96021	96150	96111	96543	96603
6	1 x 5 mm														
12	1 x 5 mm														
	1 x 7 mm														
18	1 x 5 mm														
	1 x 7 mm														
25	1 x 5 mm														
	1 x 6 mm														
	1 x 10 mm														
35	1 x 5 mm														
	1 x 12 mm														
50	1 x 5 mm														
	1 x 12 mm														
70	1 x 5 mm														
	1 x 12 mm														
95	1 x 5 mm														
	1 x 7 mm														
	1 x 12 mm														
120	1 x 5 mm														
	1 x 7 mm														
	1 x 12 mm														
150	1 x 5 mm														
	1 x 7 mm														
185	1 x 5 mm														
	1 x 7 mm														
240	1 x 5 mm														
	1 x 7 mm														
	1 x 10 mm														
300	1 x 5 mm														
	1 x 7 mm														
	1 x 10 mm														
400	1 x 7 mm														
	1 x 10 mm														
500	1 x 10 mm														
600	1 x 10 mm														

Attention: Take care of the **"Assembly of cable lugs and connectors"** (catalogue page 159) when processing.
Connectors: Minimum quantity of crimpings for each side.

Crimping instructions for DIN 46235-series and DIN 46267-series Hexagonal-shape-crimping

Crimping instructions

Minimum crimping quantity of WEITKOWITZ copper compression cable lugs **DIN 46235-series**
 and copper compression connectors **DIN 46267-series** (hexagonal-shape-crimping):

cross-section copper in mm²	pressing quantity x crimping width	DW6/50 90178	DW6/70 90182	DW10/120 90189	MP13 90200	MP 1 90300	HP10 91110	AP10 91120	HPW15 90602	MP 2 90260	HP20 91130	AP20 91140	HPW17 90651	HP30 91150	AP30 91160	MHP10/400 90340	HPK18 90663
6	1 x 5 mm																
	1 x 7 mm																
10	1 x 5 mm																
	1 x 7 mm																
16	2 x 5 mm																
	1 x 12 mm																
25	2 x 5 mm																
	1 x 12 mm																
35	2 x 5 mm																
	1 x 12 mm																
50	3 x 5 mm																
	1 x 12 mm																
70	3 x 5 mm																
	1 x 12 mm																
95	3 x 5 mm																
	2 x 10 mm																
120	3 x 5 mm																
	2 x 10 mm																
150	4 x 5 mm																
	2 x 10 mm																
185	4 x 5 mm																
	2 x 10 mm																
240	4 x 5 mm																
	2 x 13 mm																
300	4 x 5 mm																
	4 x 7 mm																
	2 x 13 mm																
400	3 x 13 mm																
500	4 x 10 mm																
625	5 x 10 mm																
800	6 x 10 mm																
1000	6 x 10 mm																

Attention: Take care of the **"Assembly of cable lugs and connectors"** (catalogue page 159) when processing.
 Connectors: Minimum quantity of crimpings for each side.

Crimping instructions for euro-series
WM-crimping

Crimping instructions
Minimum crimping quantity of WEITKOWITZ cable lugs
and connectors of the **euro-series** (WM-crimping):

	5	10	16	25	36	50	70	95	120	150	185	240	300	400	500	550
5	1 x 3.0m ²	1 x 7.0m ²														
10	1 x 3.0m ²	1 x 7.0m ²														
16	2 x 3.0m ²	1 x 7.0m ²														
25	2 x 3.0m ²	1 x 7.0m ²														
36	2 x 3.0m ²	2 x 7.0m ²														
50	2 x 3.0m ²	2 x 7.0m ²														
70	2 x 3.0m ²	2 x 7.0m ²														
95	2 x 3.0m ²	2 x 7.0m ²														
120	2 x 3.0m ²	2 x 7.0m ²														
150	2 x 3.0m ²	2 x 7.0m ²														
185	2 x 3.0m ²	2 x 7.0m ²														
240	2 x 3.0m ²	2 x 7.0m ²														
300	2 x 3.0m ²	2 x 7.0m ²														
400	2 x 3.0m ²	2 x 7.0m ²														
500	2 x 3.0m ²	2 x 7.0m ²														
550	2 x 3.0m ²	2 x 7.0m ²														

Attention: Take care of the **"Assembly of cable lugs and connectors"** (catalogue page 159) when processing.
Connectors: Minimum quantity of crimpings for each side.

Crimping instructions for tubular cable lugs and connectors for finewiring conductors (catalogue page 18 – 22) WM-crimping

Crimping instructions
 Minimum crimping quantity of WEITKOWITZ cable lugs
 and connectors for **finewiring conductors** (WM-crimping):

cross-section copper in mm ²	pressing quantity x crimping width	FW10/70	MP 1	HP10	AP10	HPW15	MP 2	HP20	AP20	HPW17	HP30	AP30
10	1 x 5 mm	90184	90300	91110	91120	90602	90260	91130	91140	90651	91150	91160
16	1 x 5 mm											
	2 x 5 mm											
25	2 x 5 mm											
35	2 x 5 mm											
50	2 x 5 mm											
70	2 x 5 mm											
	3 x 5 mm											
95	3 x 5 mm											
120	3 x 5 mm											
150	3 x 5 mm											
185	3 x 5 mm											
	3 x 7 mm											
240	4 x 5 mm											
	3 x 7 mm											

Attention: Take care of the "Assembly of cable lugs and connectors" (catalogue page 159) when processing.
 Connectors: Minimum quantity of crimpings for each side.

Crimping instructions for aluminium cable lugs and connectors

Hexagon-shape-crimping

Crimping instructions
Minimum crimping quantity of WEITKOWITZ compression cable lugs
and connectors made of **aluminium**:

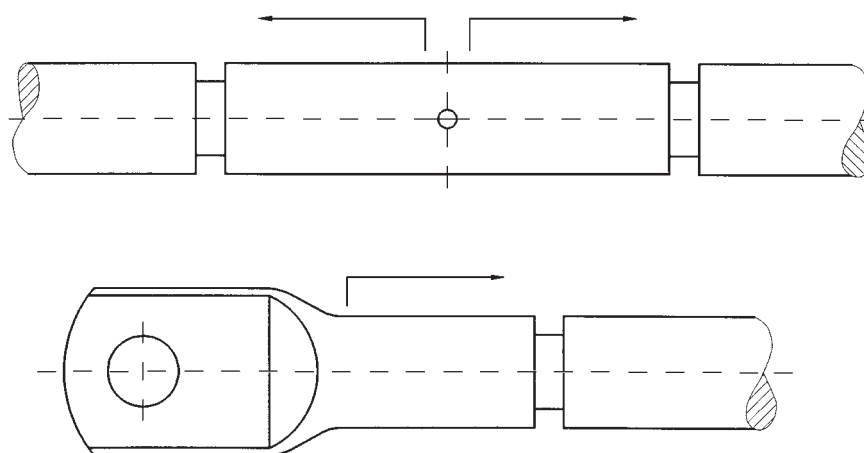
cross-section copper in mm²	pressing quantity x crimping width	DW6/50 90178	DW6/70 90182	DW10/120 90189	MP13 90200	MP 1 90300	HP10 91110	AP10 91120	HPW15 90602	MP 2 90260	HP20 91130	AP20 91140	HPW17 90651	HP30 91150	AP30 91160	MHP10/400 90340	HPK18 90663
16	3 x 5 mm																
	1 x 12 mm																
25	4 x 5 mm																
	2 x 12 mm																
35	5 x 5 mm																
	2 x 12 mm																
50	5 x 5 mm																
	2 x 12 mm																
70	6 x 5 mm																
	3 x 10 mm																
95	6 x 5 mm																
	3 x 10 mm																
120	6 x 5 mm																
	3 x 10 mm																
150	6 x 5 mm																
	3 x 10 mm																
185	6 x 5 mm																
	3 x 13 mm																
240	6 x 5 mm																
	5 x 7 mm																
	3 x 13 mm																
300	3 x 16 mm																

Attention: Take care of the **"Assembly of cable lugs and connectors"** (catalogue page 159) when processing.
Connectors: Minimum quantity of crimpings for each side.

Assembly of cable lugs and connectors

– in general –

1. Take the measurements of the cable lugs/ connectors and their allocation of cross section out of this catalogue.
2. Cut the cable right-angled to the conductor. Strip off the insulation of the cable. The part to be stripped off has to be as long as the sleeve (measurement a) of the cable lug/ connector + about 10%.
3. Before crimping clean the conductor with a wire brush in order to remove dirt and oxidation. Sector-shaped conductors must be rounded before crimping!
4. Insert the noninsulated conductor into the compression sleeve until it reaches the wire stop.
5. Before starting to crimp please check whether conductor and cable lug respectively connector have the same cross section and do fit to each other according to our catalogue.
6. Please check whether crimping tool and crimping dies are suitable for the cable lugs/ connectors you want to crimp. You can take this information for each series and cross section from the manufacturer's catalogue or the operating instructions of the tool.
7. Please pay attention to the quantity and the direction of crimping. If several crimpings are necessary (cp. catalogue and/ or operating instruction of the used tool) please follow the illustration below. Start crimping from the end of the cable and proceed in direction to the end of the sleeve (cp. illustration).



For the quantity of crimpings take notice of the charts on page 154 - 158.

Crimping tool recommendation for twin cord-end-sleeves

(catalogue page 80)

checked in alliance with wire H-05-K and H-07V-K (other wires on request)

cross section mm ²	AZ 10 no. 90810	AZ 11 no. 90811	AZ 14 no. 90814	AZ 15 no. 90750	MP 13 no. 90200	AP 10 and HP 10 no.: 91120/91110
2 x 0.5	X		X	X		
2 x 0.75	X		X	X		
2 x 1.0	X		X	X		
2 x 1.5	X		X	X		
2 x 2.5		X	X		with dies no. 90225	with dies no. 91383
2 x 4.0		X			with dies no. 90226	with dies no. 91384
2 x 6.0		X			with dies no. 90227	with dies no. 91385
2 x 10.0					with dies no. 90228	with dies no. 91386
2 x 16.0					with dies no. 90229	with dies no. 91387

Electrical characteristics

Maximum allowable current load of cable lugs and connectors

in conjunction with insulated conductors (at ambient temperature 30°C)

nominal cross section (mm ²)	group 1 one or several single core conductors, laid in conduits		group 2 multi core conductors (for example: plastic-sheathed conductors, lead-sheathed conductors, flexible conductors		group 3 overhead, single core conductors with clearance between lines (at minimum cable - Ø)	
	copper (ampere)	aluminium (ampere)	copper (ampere)	aluminium (ampere)	copper (ampere)	aluminium (ampere)
0.75	–	–	12	–	15	–
1	11	–	15	–	19	–
1.5	15	–	18	–	24	–
2.5	20	–	26	–	32	–
4	25	–	34	–	42	–
6	33	–	44	–	54	–
10	45	–	61	48	73	57
16	61	48	82	64	98	77
25	83	65	108	85	129	103
35	103	81	135	105	158	124
50	132	103	168	132	198	155
70	165	–	207	163	245	193
95	197	–	250	197	292	230
120	235	–	292	230	344	268
150	–	–	335	263	391	310
185	–	–	383	301	448	353
240	–	–	453	357	528	414
300	–	–	504	409	608	479
400	–	–	–	–	726	569
500	–	–	–	–	830	649

Technical data/ general information

Temperature resistance:

Copper-cable lugs and -connectors without insulation:	up to max. 120°C (according to DIN 46234)
Copper-cable lugs and -connectors with nylon-insulation:	- 55°C to +120°C
Copper-cable lugs and -connectors with PC-insulation:	- 40°C to +120°C
Butt-connectors with shrink insulation:	- 10°C to +105°C
Terminals with PVC (polyvinyl chloride)-insulation:	- 10°C to +70°C
Terminals with PC (polycarbonate=makrolon)-insulation:	- 40°C to +100°C
Terminals with nylon-insulation:	- 55°C to +100°C
Brass terminals, tin plated, without insulation:	- 55°C to +100°C
Steel terminals, nickel-plated:	up to max. 250°C
Cord-end-sleeves with insulation:	up to max. 105°C
Nickel cable lugs and connectors:	up to max. 500°C

Silicone and halogen concentration of insulated connecting material

The following chart shows the concentration of silicone and halogen of insulated connection material delivered by us:

article description	catalogue page	free of silicone	free of halogen
Terminals, ring type	58 – 60	yes	yes
Terminals, fork type	61	yes	yes
Pin-terminals	62	yes	yes
Butt-connectors	62	yes	yes
Parallel-connectors	63	yes	yes
Heat shrinkable-butt splice connectors	63	yes	yes
Closed end connectors	63	yes	yes
Male und female disconnectors partly PVC - insulated	64	yes	no
Male und female disconnectors partly PC - insulated	64	yes	yes
Female disconnectors partly nylon - insulated	65	yes	yes
Female disconnectors, fully insulated	65	yes	yes
Piggy back disconnectors PVC - insulated	66	yes	no
Piggy back disconnectors PC - insulated	66	yes	yes
Flag female disconnectors	66	yes	yes
Receptacle disconnectors partly PVC - insulated	66	yes	no
Receptacle disconnectors partly PC - insulated	66	yes	yes
Bullet disconnectors partly PVC - insulated	67	yes	no
Bullet disconnectors partly PC - insulated	67	yes	yes
Receptacle and bullet disconnectors, fully insulated	67	yes	yes
Insulated housings	69	yes	yes
Insulated male tabs no. 44064, 44067, 44069, 44071, 44073, 44075	71	yes	no
Insulated male tabs no. 44065	71	yes	yes
Insulated male tabs no. 44068	71	yes	yes
Cord-end-sleeves ¹	78 +79	yes	yes ¹
Twin cord-end-sleeves	80	yes	yes
Cord-end-sleeves for short circuit resistant conductors	80	yes	yes
Cord-end-sleeves, strip form ²	84	yes	yes ²
Cable ties, cable tie mounts, clips	86 - 90	yes	yes

¹ Except from no. 51305, 51306, 51480, 51481, 51687. The colour of these articles contains halogen (Percentage of color is about 3 %). These articles are only free of silicon.

² Except from no. 50216. The colour of this article contains halogen (Percentage of color is about 3 %). This article is only free of silicon.

Technical information for shrinkable tubings

technical information	type W 135	type W 135 3:1	type WKS 3:1	type WDW	type W 135 gr/ye	type W 135 bl	type WHF
material	polyolefin	polyolefin	polyolefin	polyolefin	polyolefin	polyolefin	polyolefin
colour	black	black	black	black	green/ yellow	blue	black
shrinking proportion	2:1	3:1	3:1	3:1	3:1	3:1	2:1
heat resistance	-55°C to + 135°C	-55°C to + 135°C	-55°C to + 110°C (outer casing)	-55°C to + 110°C	-55°C to + 135°C	-55°C to + 135°C	-40°C to + 105°C
shrinking temperature	min. 110°C	min. 90°C	min. 95°C	min. 120°C	min. 90°C	min. 90°C	min. 115°C
dielectric breack-down strength/norm	24kV/mm VDE 0303T.2	24kV/mm VDE 0303T.2	22kV/mm VDE 0303T.2	20kV/mm ASTM-D149	24kV/mm VDE 0303T.2	24kV/mm VDE 0303T.2	24kV/mm IEC 243
further information	UL224 accredited	UL224 accredited				UL224 accredited	

Technical changes reserved.

Technical data/Authorisation of cable ties

General information

WEITKOWITZ polyamide cable ties are qualitative high-standard products made in the European Union. We only use pure polyamide 6.6 without adding any recycling compounds. Material and products subject to strict quality controls.

Features

The used polyamide 6.6 is self-extinguishing according to UL 94-V2 and free of halogen and silicon. Water absorption is approx. 2,5% at 23°C and 50% atmospheric moisture.

Resistance against chemicals

Among other things polyamide are resistant against dissolver, oils, benzin, hydrocarbon, sea water, alcohol, soap- and detergent agents.

Condition of processing

Temperature of processing during installation: –15 °C up to +60 °C

Application conditions

Regularly usage temperature after installation for

- Standard cable ties nature and black and cable ties with steel clip: –40 °C up to +85 °C
- Heat stabilized cable ties: –40 °C up to +130 °C (temporary up to +145 °C)

Package and advice for storage

Usually we supply polymide cable ties in welded plastic bags á 100 or 50 pieces. To prevent the cable ties from desiccation the packages should remain close until processing. The ideal storage conditions are a temperature of about 20 oC and an air humidity of about 50%.

Authorisation

With WEITKOWITZ cable ties you choose certificated quality:

Certification-institute	Standard
POLYAMIDE-CABLE TIES	
 Underwriters Laboratories UL (U.S.A.)	U.L. 94 – Flammability of Plastic Materials (Rohmaterial) U.L. 1565 – Wire Positioning Devices (Fertigprodukt)
 Germanischer Lloyd	IEC 60092-101, MIL-23190 E UL 1565
 RINA	IEC 60092-101 flame retardant
 DET NORSKE VERITAS	IEC 60092-101 BV Rules for the Classification
 BUREAU VERITAS	IEC 60092 series, BV Rules for the Classification of Steel Ships
 Lloyd's Register	UL 94-V2, UL 1565, MIL-S-23190E, IEC 60092-101
 Military Standard (U.S.A.) American Defense Dept.	MIL-C-23190 Military Standard
 IMQ	CEI EN 50146-I Ed.2000 and so to the essential requirements of the Policy B.T. 73/23 CEE and 93/68 CEE (gilt für Standard-Kabelbinder natur + schwarz Seite 86+87)
 IMQ	EN50146:2000 and so to the essential requirements of the Policy B.T. 73/23 CEE and further modifications (gilt für Kabelbinder mit Stahlzunge Seite 88)
CABLE TIES OUT OF STAINLESS STEEL	
 Underwriters Laboratories UL (U.S.A.)	Wire Positioning Devices
 DET NORSKE VERITAS	Rules for Classification of Ships and Mobile Offshore Units

The specific classification of a special kind of cable tie can be taken from the respective product pages.

Technical changes reserved.

Technical data/ general information

Pull-out-forces conductor/ cable lug:

WEITKOWITZ cable lugs/ -connectors which are processed with WEITKOWITZ crimping tools according to our crimping instructions have pull-out-forces according to VDE 0220 part 2.

Please note, that a proper connection can only be guaranteed when using WEITKOWITZ crimping solderless cable connections in conjunction with WEITKOWITZ tools.

Crimping of solid conductors:

Cable lugs, connectors and crimping tools are designed for crimping stranded conductors unless differently indicated in our catalogue. For crimping on solid conductors, please clarify the processing with WEITKOWITZ before starting to crimp.

Tightening torques for fixture screws:

According to DIN 46200 the following tightening torques for brass screws are to be kept:

size of thread M	tightening torque Nm	size of thread M	tightening torque Nm
5	2	12	15,5
6	3	16	30
8	6	20	52
10	10		

Examination of your WEITKOWITZ crimping tools:

We recommend a yearly examination (with permanent use shorter periods after agreement) of your WEITKOWITZ-crimping tools by our service-department. The fixed price contains a test certificate including an annual test badge.

Repair at crimping and cutting tools/ modification at tools:

Tools delivered by WEITKOWITZ may not be changed in any way. In particular it is not allowed to make diameter holes. For troublefree clamping of hydraulic cylinders into a vice use only the suitable WEITKOWITZ jaws. Repairs of tools may only be executed by WEITKOWITZ service-department.

Lending-service:

For special problems of connection or the management of special order situations we offer a wide range of lending-tools

Technical data/ general information

Conductor cross section comparison

AWG	cross section in mm ²	comparable metr. cross section in mm ²
27	0.102	0.1
26	0.128	0.14
25	0.163	-
24	0.205	0.2
23	0.259	0.25
22	0.325	0.34
21	0.412	-
20	0.519	0.5
19	0.653	-
18	0.823	0.75
17	1.04	1
16	1.31	-
15	1.65	1.5
14	2.08	-
13	2.63	2.5
12	3.31	-
11	4.15	-
10	5.27	6
9	6.62	-
8	8.35	-
7	10.6	10
6	13.3	-
5	16.8	16
4	21.2	-
3	26.7	25
2	33.6	35
1	42.4	-
1/0	53.4	50
2/0	67.5	70
3/0	85.0	95
4/0	107.2	120
5/0	135.1	150
6/0	170.3	185

Colour of insulation

cross section mm ²	colour of insulation
0.1 – 0.5	yellow
0.5 – 1	red
1.5 – 2.5	blue
4 – 6	yellow
10	red
16	blue
25	yellow
35	red
50	blue
70	yellow
95	red
120	blue
150	yellow

Technical data/ general information

Copper notations

In line with the harmonisation of European standards the DIN 40500, DIN1787 and DIN 1754 page 1 had been cancelled and replaced by the European standards EN 13599, EN 13600, EN 13601 and EN 13605. Simultaneously the notations of copper materials have changed. The following chart gives an overview:

former notation	new notation	EN-number	Standard	copper content at least
E-Cu 58	Cu-ETP	CW004A	DIN EN 13600 DIN EN 13601	99,90 %
E-Cu 57	-	-	-	99,90 %
SE-Cu	Cu-HCP	CW021A	DIN EN 13600 DIN EN 13599	99,95 %
	Cu-PHC	CW020A	DIN EN 13600	99,95 %
SF-Cu	Cu-DHP	CW024A	DIN EN 12449	99,90 %
SW-Cu	Cu-DLP	CW023A	DIN EN 1652	99,90 %

We have all our copper notations adjusted to the new European standard. Therefore the names of the materials have changed but our high quality standard hasn't been affected in any way. Furthermore we will exclusively use copper with a copper concentration from at least 99,9%.

Numerical Index

art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page
11510	20	12017	48	13060	7	13155	12	13234	8
11511	20	12018	48	13061	7	13156	12	13235	9
11512	20	12076	48	13062	7	13157	12	13236	9
11513	20	12077	48	13063	7	13159	12	13237	9
11514	20	12078	48	13065	7	13160	12	13238	9
11515	20	12081	48	13066	7	13161	12	13239	9
11516	20	12082	48	13067	7	13162	12	13240	9
11517	20	12083	48	13068	7	13165	13	13241	9
11518	20	12101	48	13070	7	13166	13	13242	9
11520	20	12102	48	13071	7	13167	13	13243	9
11521	20	12110	48	13072	7	13169	13	13245	9
11522	20	12111	48	13073	7	13170	13	13246	9
11523	20	12112	48	13076	7	13171	13	13247	9
11525	21	12115	48	13077	7	13172	13	13248	9
11526	21	12116	48	13078	7	13174	13	13249	9
11527	21	12117	48	13081	7	13175	13	13250	9
11528	21	12118	48	13082	7	13176	13	13251	9
11530	21	12205	48	13083	7	13178	13	13252	9
11531	21	12206	48	13086	7	13179	13	13254	9
11532	21	12207	48	13087	7	13180	13	13255	9
11533	21	12210	48	13088	7	13181	13	13256	9
11535	21	12211	48	13100	10, 28	13182	13	13257	9
11536	21	12212	48	13101	10, 28	13183	13	13260	9, 26
11537	21	12450	48	13102	10, 28	13184	13	13261	9, 26
11538	21	12454	48	13105	10, 28	13185	13	13262	9, 26
11539	21	12458	48	13106	10, 28	13204	8	13263	9, 26
11540	21	12460	48	13107	10, 28	13205	8	13264	9, 26
11541	21	12462	48	13108	10, 28	13206	8	13265	9, 26
11542	21	13000	6, 24	13110	10, 28	13207	8	13266	9, 26
11543	21	13001	6, 24	13111	10, 28	13208	8	13270	9, 26
11545	21	13002	6, 24	13112	10, 28	13209	8	13271	9, 26
11546	21	13005	6, 24	13113	10, 28	13210	8	13275	9, 26
11547	21	13006	6, 24	13115	10, 28	13211	8	13276	9, 26
11548	21	13007	6, 24	13116	10, 28	13212	8	13281	8
11549	21	13008	6, 24	13117	10, 28	13213	8	13282	8
11550	21	13010	6, 24	13118	10, 28	13214	8	13283	8
11551	21	13011	6, 24	13120	10	13215	8	13284	9
11552	21	13012	6, 24	13121	10	13216	8	13285	9
11555	21	13013	6, 24	13122	10	13217	8	13286	9
11556	21	13015	6, 24	13123	10	13218	8	13287	9
11557	21	13016	6, 24	13134	12	13219	8	13288	9
11560	21	13017	6, 24	13135	12	13220	8	13289	9
11561	21	13018	6, 24	13136	12	13221	8	13290	9, 26
11562	21	13020	6	13140	12	13222	8	13292	8
11583	21	13021	6	13141	12	13223	8	13296	8
11584	21	13022	6	13142	12	13224	8	13297	8
11585	20	13023	6	13145	12	13225	8	13298	8
12000	48	13024	6	13146	12	13226	8	13299	9
12001	48	13050	7	13147	12	13227	8	13305	10
12002	48	13051	7	13148	12	13228	8	13306	10
12010	48	13052	7	13150	12	13229	8	13307	10
12011	48	13055	7	13151	12	13230	8	13308	10
12012	48	13056	7	13152	12	13231	8	13309	10
12015	48	13057	7	13153	12	13232	8	13310	10
12016	48	13058	7	13154	12	13233	8	13311	10

Numerical Index

art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page
13312	10	13466	14	13560	14	13645	18	13730	8
13313	10	13468	14	13561	14	13646	18	13731	8
13314	10	13470	14	13562	14	13647	18	13732	8
13315	11	13472	14	13563	14	13648	18	13733	8
13316	11	13474	14	13564	14	13649	18	13734	8
13317	11	13476	14	13566	14	13650	18	13735	9
13318	11	13478	14	13567	14	13651	18	13736	9
13320	11	13480	14	13568	14	13652	18	13737	9
13321	11	13482	14, 32	13569	14	13660	22	13738	9
13322	11	13484	14, 32	13570	14	13661	22	13739	9
13323	11	13486	14, 32	13572	14	13662	22	13740	9
13325	11	13488	14, 32	13573	14	13663	22	13741	9
13326	11	13510	18	13574	14	13664	22	13742	9
13327	11	13511	18	13575	14	13665	22	13743	9
13328	11	13512	18	13576	14	13666	22	13745	9
13330	11	13513	18	13583	18	13667	22	13746	9
13331	11	13514	18	13584	18	13668	22	13747	9
13332	11	13515	18	13585	18	13669	22	13748	9
13333	11	13516	18	13589	19	13670	22	13749	9
13335	11	13517	18	13590	19	13683	18	13750	9
13336	11	13518	18	13592	19	13684	18	13751	9
13337	11	13520	18	13593	19	13685	18	13752	9
13338	11	13521	18	13595	19	13689	19	13754	9
13340	11	13522	18	13597	19	13690	19	13755	9
13341	11	13523	18	13598	19	13692	19	13756	9
13342	11	13525	18	13610	18	13693	19	13757	9
13345	11	13526	18	13611	18	13695	19	13760	9, 26
13346	11	13527	18	13612	18	13697	19	13761	9, 26
13347	11	13528	18	13613	18	13698	19	13762	9, 26
13348	11	13530	18	13614	18	13704	8	13781	8
13349	11	13531	18	13615	18	13705	8	13782	8
13350	11	13532	18	13616	18	13706	8	13783	8
13351	11	13533	18	13617	18	13707	8	13784	9
13352	11	13535	18	13618	18	13708	8	13785	9
13355	11	13536	18	13620	18	13709	8	13786	9
13356	11	13537	18	13621	18	13710	8	13787	9
13357	11	13538	18	13622	18	13711	8	13788	9
13360	11, 29	13539	18	13623	18	13712	8	13789	9
13361	11, 29	13540	18	13625	18	13713	8	13790	9, 26
13362	11, 29	13541	18	13626	18	13714	8	13792	8
13381	11	13542	18	13627	18	13715	8	13796	8
13410	15	13543	18	13628	18	13716	8	13797	8
13412	15	13545	18	13630	18	13717	8	13798	8
13414	15	13546	18	13631	18	13718	8	13799	9
13416	15	13547	18	13632	18	13719	8	13805	10
13418	15	13548	18	13633	18	13720	8	13806	10
13420	15	13549	18	13635	18	13721	8	13807	10
13450	14	13550	18	13636	18	13722	8	13808	10
13452	14	13551	18	13637	18	13723	8	13809	10
13454	14	13552	18	13638	18	13724	8	13810	10
13456	14	13554	14	13639	18	13725	8	13811	10
13458	14	13555	14	13640	18	13726	8	13812	10
13460	14	13556	14	13641	18	13727	8	13813	10
13462	14	13557	14	13642	18	13728	8	13814	10
13464	14	13558	14	13643	18	13729	8	13815	11

Numerical Index

art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page
13816	11	14023	34	14255	35	14341	37	14608	34
13817	11	14032	38	14256	35	14342	37	14610	34
13818	11	14037	38	14257	35	14343	37	14611	34
13820	11	14041	38	14259	35	14344	37	14612	34
13821	11	14121	34	14260	35	14345	37	14613	34
13822	11	14122	34	14261	35	14346	37	14614	34
13823	11	14123	34	14262	35	14347	37	14615	34
13825	11	14132	38	14264	35	14348	37	14616	34
13826	11	14137	38	14265	35	14349	37	14617	34
13827	11	14141	38	14266	35	14350	37	14618	34
13828	11	14205	34	14269	35	14351	37	14619	34
13830	11	14206	34	14270	35	14352	37	14620	34
13831	11	14207	34	14271	35	14355	37	14621	34
13832	11	14208	34	14275	35	14356	37	14622	34
13833	11	14210	34	14276	35	14357	37	14623	34
13835	11	14211	34	14280	35	14360	37	14624	34
13836	11	14212	34	14281	35	14361	37	14625	34
13837	11	14213	34	14282	35	14362	37	14626	34
13838	11	14214	34	14283	35	14396	37	14627	34
13840	11	14215	34	14284	34	14420	40	14628	34
13841	11	14216	34	14285	34	14422	40	14630	34
13842	11	14217	34	14286	35	14424	40	14631	34
13845	11	14218	34	14287	35	14458	39	14632	34
13846	11	14219	34	14289	35	14460	39	14633	34
13847	11	14220	34	14291	35	14462	39	14635	34
13748	11	14221	34	14292	34	14464	39	14636	34
13849	11	14222	34	14293	34	14466	39	14637	34
13850	11	14223	34	14294	35	14468	39	14638	34
13851	11	14224	34	14295	35	14470	39	14639	34
13852	11	14225	34	14306	36	14472	39	14640	35
13855	11	14226	34	14307	36	14474	39	14641	35
13856	11	14227	34	14311	36	14476	39	14642	35
13857	11	14228	34	14312	36	14478	39	14643	35
13860	11	14230	34	14313	36	14480	39	14645	35
13861	11	14231	34	14314	36	14482	39	14646	35
13862	11	14232	34	14315	36	14484	39	14647	35
13881	11	14233	34	14316	36	14486	39	14648	35
13952	15	14235	34	14317	36	14488	39	14649	35
13954	15	14236	34	14318	36	14490	39	14650	35
13956	15	14237	34	14321	36	14492	39	14651	35
13958	15	14238	34	14322	36	14514	38	14652	35
13960	15	14239	34	14323	36	14516	38	14654	35
13962	15	14240	35	14325	36	14518	38	14655	35
13964	15	14241	35	14326	36	14520	38	14656	35
13966	15	14242	35	14327	36	14566	40	14657	35
13968	15	14243	35	14328	36	14568	40	14659	35
13970	15	14245	35	14330	36	14570	40	14660	35
13972	15	14246	35	14331	36	14572	40	14661	35
13974	15	14247	35	14332	36	14574	40	14662	35
13976	15	14248	35	14333	36	14576	40	14664	35
13978	15	14249	35	14335	37	14578	40	14665	35
13980	15	14250	35	14336	37	14580	40	14666	35
13982	15	14251	35	14337	37	14605	34	14669	35
14021	34	14252	35	14338	37	14606	34	14670	35
14022	34	14254	35	14340	37	14607	34	14671	35

Numerical Index

art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page
14675	35	14755	37	15216	24	15278	26	16169	31
14676	35	14756	37	15217	24	15279	26	16170	31
14680	35	14757	37	15218	24	15280	26	16171	31
14681	35	14760	37	15219	24	15281	26	16172	31
14682	35	14761	37	15220	24	15282	26	16174	31
14683	35	14762	37	15221	24	15283	26	16175	31
14684	34	14796	37	15222	24	15285	26	16176	31
14685	34	14820	40	15223	24	15286	26	16178	31
14686	35	14822	40	15224	24	15287	26	16179	31
14687	35	14824	40	15225	24	15288	26	16180	31
14689	35	14858	39	15226	24	15289	26	16181	31
14691	35	14860	39	15228	24	15291	26	16183	31
14692	34	14862	39	15229	24	15292	26	16184	31
14693	34	14864	39	15230	24	15293	26	16185	31
14694	35	14866	39	15231	24	15294	26	16215	24
14695	35	14868	39	15232	24	15295	26	16216	24
14706	36	14870	39	15234	24	15305	28	16217	24
14707	36	14872	39	15235	24	15306	28	16218	24
14711	36	14874	39	15236	24	15307	28	16219	24
14712	36	14876	39	15237	24	15308	28	16220	25
14713	36	14878	39	15238	24	15309	28	16221	25
14714	36	14880	39	15239	24	15310	28	16222	25
14715	36	14882	39	15241	25	15311	28	16223	25
14716	36	14884	39	15242	25	15312	28	16224	25
14717	36	14886	39	15243	25	15313	28	16225	25
14718	36	14888	39	15244	25	15314	28	16226	25
14721	36	14890	39	15245	25	15460	32	16227	25
14722	36	14892	39	15246	25	15462	32	16228	25
14723	36	14966	40	15248	25	16020	24	16229	25
14725	36	14968	40	15249	25	16021	24	16230	25
14726	36	14970	40	15250	25	16022	24	16231	25
14727	36	14972	40	15251	25	16023	24	16232	25
14728	36	14974	40	15252	25	16024	24	16233	25
14730	36	14976	40	15253	25	16025	24	16234	25
14731	36	14978	40	15254	25	16120	28	16235	25
14732	36	14980	40	15256	25	16121	28	16236	25
14733	36	15134	30	15257	25	16122	28	16237	25
14735	37	15135	30	15258	25	16123	28	16238	25
14736	37	15136	30	15259	25	16145	30	16239	25
14737	37	15139	30	15260	25	16146	30	16240	25
14738	37	15140	30	15261	25	16147	30	16241	25
14740	37	15141	30	15262	25	16148	30	16242	25
14741	37	15142	30	15263	25	16150	30	16243	25
14742	37	15204	24	15264	25	16151	30	16244	26
14743	37	15205	24	15265	25	16152	30	16245	26
14744	37	15206	24	15266	25	16153	30	16246	26
14745	37	15207	24	15267	25	16155	30	16247	26
14746	37	15208	24	15268	25	16156	30	16248	26
14747	37	15209	24	15269	25	16157	30	16249	26
14748	37	15210	24	15271	25	16160	30	16250	26
14749	37	15211	24	15272	25	16161	30	16251	26
14750	37	15212	24	15273	25	16162	30	16252	26
14751	37	15213	24	15274	25	16165	31	16254	26
14752	37	15214	24	15275	25	16166	31	16255	26
14752	37	15215	24	15276	25	16167	31	16256	26

Numerical Index

art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page
16257	26	16381	28	18546	19	21482	43	41013	50
16281	25	16382	29	18549	20	21716	44	41014	50
16282	25	16383	29	18550	20	21717	44	41015	50
16283	25	16384	29	18554	20	21722	44	41016	50
16284	25	16385	29	18555	20	21723	44	41017	50
16285	25	16392	28	18556	20	21726	44	41018	50
16286	25	16450	32	18559	20	21727	44	41019	50
16287	26	16452	32	18560	20	21731	44	41020	50
16288	26	16454	32	18561	20	21732	44	41021	50
16289	26	16456	32	18580	19	21737	44	41022	50
16290	25	16458	32	18583	19	21738	44	41023	50
16292	25	16464	32	18584	19	21741	44	41024	50
16296	24	16466	32	18586	19	21742	44	41025	50
16297	25	16468	32	18593	20	21746	44	41026	50
16315	28	16470	32	18594	19	21747	44	41027	50
16316	28	16472	32	18595	20	21750	44	41028	50
16317	28	16474	32	18599	19	21751	44	41029	50
16318	28	16476	32	21212	42	21755	44	41030	50
16319	28	16478	32	21213	42	21756	44	41031	50
16320	28	16480	32	21216	42	21810	45	41032	50
16321	28	18220	27	21217	42	21814	45	41033	50
16322	28	18224	27	21222	42	21816	45	41034	50
16323	28	18225	27	21223	42	21820	45	41035	50
16324	29	18226	27	21226	42	21822	45	41039	51
16325	29	18229	27	21227	42	21826	45	41040	51
16326	29	18230	27	21231	42	21828	45	41041	51
16327	29	18231	27	21232	42	21830	45	41042	51
16328	29	18235	27	21236	42	21834	45	41043	51
16329	29	18236	27	21237	42	21836	45	41044	51
16330	29	18237	27	21238	42	21838	45	41045	51
16331	29	18240	27	21240	42	21842	45	41046	51
16332	29	18241	27	21241	42	21844	45	41047	51
16333	29	18244	27	21242	42	21846	45	41048	51
16334	29	18245	27	21245	42	21852	45	41049	51
16335	29	18246	27	21246	42	21854	45	41050	51
16336	29	18249	27	21247	42	21860	45	41051	51
16337	29	18250	27	21248	42	21862	45	41052	51
16338	29	18251	27	21250	42	21866	45	41053	51
16340	29	18254	27	21251	42	21868	45	41054	51
16341	29	18255	27	21252	42	21903	43	41055	51
16342	29	18256	27	21255	42	21906	43	41056	51
16344	29	18280	27	21256	42	21909	43	41057	51
16345	29	18285	27	21257	42	21912	43	41058	51
16346	29	18290	27	21261	42	21915	43	41059	51
16347	29	18294	27	21262	42	21918	43	41060	51
16348	29	18332	27	21462	43	21921	43	41061	51
16349	29	18530	19	21464	43	21924	43	41062	51
16350	29	18531	19	21466	43	41001	50	41063	51
16351	29	18535	19	21468	43	41003	50	41064	51
16352	29	18536	19	21470	43	41005	50	41065	51
16354	29	18537	19	21472	43	41006	50	41066	51
16355	29	18540	19	21474	43	41009	50	41067	51
16356	29	18541	19	21476	43	41010	50	41068	51
16357	29	18544	19	21478	43	41011	50	41069	51
16378	29	18545	19	21480	43	41012	50	41070	52

Numerical Index

art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page
41071	52	41320	54	42033	58	42133	61	44043	65
41072	52	41400	55	42034	58	42134	61	44044	65
41073	52	41401	55	42035	58	42140	61	44045	65
41074	52	41404	55	42040	59	42141	61	44046	65
41075	52	41408	55	42041	59	42146	61	44047	65
41076	52	41410	55	42042	59	42147	61	44049	65
41077	52	41412	55	42043	59	42301	62	44056	66
41078	52	41414	55	42045	59	42302	62	44060	66
41079	52	41416	55	42046	59	42304	62	44064	71
41081	52	41418	55	42047	59	42305	62	44065	71
41082	52	41420	55	42048	59	42306	62	44067	71
41083	52	41422	55	42050	59	42308	62	44068	71
41084	52	41424	55	42051	59	42310	62	44069	71
41086	52	41426	55	42052	59	42312	62	44071	71
41087	52	41450	55	42053	59	42314	62	44073	71
41088	52	41451	55	42054	59	42400	63	44075	71
41089	52	41454	55	42055	59	42401	63	44080	65
41091	52	41458	55	42056	59	42404	63	44081	65
41092	52	41460	55	42057	59	42408	63	44083	65
41093	52	41462	55	42058	59	42430	63	44084	65
41096	51	41464	55	42060	59	42431	63	44087	65
41097	51	41466	55	42061	59	42434	63	44090	65
41098	51	41468	55	42062	59	42436	63	44110	68
41099	51	41470	55	42064	60	42450	62	44111	68
41112	53	41472	55	42065	60	42451	62	44112	68
41113	53	41474	55	42066	60	42454	62	44113	68
41114	53	41476	55	42067	60	42458	62	44114	68
41115	53	42001	58	42068	60	42484	63	44116	68
41117	53	42003	58	42070	60	42486	63	44117	68
41118	53	42005	58	42071	60	42488	63	44120	68
41120	53	42006	58	42072	60	44002	64	44134	68
41121	53	42009	58	42073	60	44003	64	44135	68
41122	53	42010	58	42075	60	44010	64	44136	68
41123	53	42011	58	42076	60	44011	64	44142	69
41125	53	42012	58	42077	60	44012	64	44143	69
41126	53	42013	58	42078	60	44013	64	44145	69
41130	53	42014	58	42081	60	44014	64	44147	69
41131	53	42015	58	42082	60	44015	64	44151	70
41132	53	42016	58	42083	60	44016	64	44152	70
41133	53	42017	58	42097	59	44017	64	44153	70
41140	53	42018	58	42112	61	44018	64	44155	70
41141	53	42019	58	42113	61	44019	64	44156	70
41146	53	42020	58	42114	61	44020	64	44157	70
41147	53	42021	58	42115	61	44021	64	44158	70
41301	54	42022	58	42117	61	44025	66	44159	70
41302	54	42023	58	42118	61	44026	66	44160	70
41304	54	42024	58	42120	61	44031	64	44161	70
41305	54	42025	58	42121	61	44033	64	44162	70
41306	54	42026	58	42122	61	44034	64	44163	70
41308	54	42027	58	42123	61	44035	64	44166	70
41310	54	42028	58	42125	61	44036	64	44167	70
41312	54	42029	58	42126	61	44039	64	44214	69
41314	54	42030	58	42130	61	44040	65	44217	69
41316	54	42031	58	42131	61	44041	65	44220	69
41318	54	42032	58	42132	61	44042	65	44234	69

Numerical Index

art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page
44235	69	51301	78	51414	76	51473	77	51632	78
44236	69	51302	78	51415	76	51474	77	51635	78
44314	68	51303	78	51418	76	51475	77	51654	79
44317	68	51305	78	51419	76	51476	77	51656	79
44320	68	51306	78	51420	76	51477	77	51660	79
44510	66	51311	78	51421	76	51478	78	51662	79
44512	66	51317	78	51422	76	51479	78	51668	79
44514	66	51318	78	51423	76	51480	78	51670	79
44516	67	51320	78	51424	76	51481	78	51679	79
44518	67	51322	78	51425	76	51482	78	51681	79
44520	67	51325	78	51426	76	51483	78	51682	79
44523	67	51328	78	51427	76	51484	78	51684	79
44526	67	51335	78	51428	76	51485	78	51687	79
44528	67	51336	78	51429	76	51486	78	51689	79
44530	67	51342	78	51430	76	51487	78	51691	79
44550	66	51344	78	51431	76	51488	79	51693	79
44552	66	51346	78	51432	77	51489	79	51695	79
44554	66	51348	79	51433	77	51490	79	61020	90
44560	67	51350	79	51434	77	51491	79	61022	90
44563	67	51352	79	51436	77	51492	79	61024	90
44566	67	51356	79	51437	77	51493	79	61038	90
44610	64	51360	79	51438	77	51494	79	61040	90
44611	64	51364	79	51439	77	51495	79	61044	90
44612	64	51368	79	51440	77	51496	79	61051	86
44613	64	51372	79	51442	76	51497	79	61053	86
44614	64	51376	79	51443	76	51498	79	61057	86
44615	64	51379	79	51444	76	51502	77	61059	86
44616	64	51380	79	51445	76	51504	77	61062	86
44617	64	51381	79	51446	76	51510	80	61065	86
44618	64	51382	79	51447	76	51511	80	61068	86
44619	64	51383	79	51448	76	51512	80	61071	86
44620	64	51384	79	51449	76	51513	80	61073	86
44621	64	51387	79	51450	76	51514	80	61075	86
44625	66	51388	79	51451	76	51516	80	61077	86
44626	66	51390	80	51452	76	51518	80	61080	86
44631	64	51392	80	51453	76	51520	80	61083	86
44633	64	51393	80	51454	76	51600	78	61086	86
44634	64	51394	80	51456	76	51601	78	61090	86
44635	64	51395	80	51455	77	51602	78	61091	86
44636	64	51396	80	51457	76	51603	78	61095	86
44639	64	51397	80	51458	77	51605	78	61098	86
50011	84	51398	80	51459	77	51606	78	61101	86
50016	84	51399	80	51460	77	51611	78	61104	86
50021	84	51400	80	51461	77	51612	78	61106	86
50026	84	51401	80	51462	77	51613	78	61110	86
50031	84	51402	76	51463	77	51616	78	61116	86
50111	84	51404	76	51464	77	51617	78	61119	86
50116	84	51406	77	51465	77	51618	78	61122	86
50121	84	51407	77	51466	77	51619	78	61151	87
50126	84	51408	77	51467	77	51622	78	61153	87
50216	84	51409	77	51468	77	51623	78	61157	87
50231	84	51410	76	51469	77	51624	78	61159	87
51216	80	51411	76	51470	77	51625	78	61162	87
51228	80	51412	76	51471	77	51630	78	61165	87
51300	78	51413	76	51472	77	51631	78	61168	87

Numerical Index

art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page
61171	87	65015	91	90185	115	90270	136	90348	124
61173	87	65018	91	90186	114	90271	136	90349	124
61175	87	65021	91	90188	115	90272	121, 136	90350	124
61177	87	65024	91	90189	115	90273	121, 136	90354	130
61180	87	65027	91	90200	116	90278	122, 137	90358	124
61183	87	65030	91	90202	116	90279	122, 137	90359	125
61186	87	65106	91	90203	116	90280	122, 137	90360	125
61190	87	65112	91	90204	116	90281	122, 137	90361	125
61191	87	65115	91	90205	116	90282	122, 137	90362	125
61195	87	65118	91	90206	116	90283	122, 137	90363	125
61198	87	65121	91	90208	116	90284	122, 137	90364	125
61201	87	65124	91	90209	116	90285	122, 137	90365	125
61204	87	65130	91	90210	116	90286	122, 137	90366	125
61206	87	65212	91	90211	116	90287	122, 137	90367	125
61210	87	65215	91	90212	116	90288	122, 137	90368	125
61216	87	65218	91	90213	116	90289	122, 137	90369	125
61219	87	65221	91	90214	117	90290	137	90370	125
61222	87	65224	91	90215	117	90291	122	90371	120
61251	88	65318	92	90216	117	90292	137	90372	120
61257	88	65321	92	90217	117	90299	123, 138	90373	120
61259	88	65324	92	90218	117	90300	118	90374	120
61262	88	65327	92	90219	117	90301	118	90375	120
61265	88	65330	92	90221	117	90302	118	90376	120
61275	88	65333	92	90222	117	90303	118	90377	120
61280	88	65336	92	90223	117	90304	118	90378	120
61283	88	65406	92	90225	117	90305	118	90381	125
61291	88	65412	92	90226	117	90310	119	90382	125
61298	88	65415	92	90227	117	90311	119	90383	125
61300	89	65418	92	90228	117	90312	119	90384	125
61302	89	65421	92	90229	117	90313	119	90385	125
61304	89	65424	92	90234	121, 136	90314	119	90386	125
61320	89	65506	92	90235	121, 136	90315	119	90387	125
61324	89	65512	92	90236	121, 136	90320	119	90388	125
61326	89	65515	92	90237	121, 136	90321	119	90389	125
61351	88	65518	92	90238	121, 136	90322	119	90390	118
61357	88	65521	92	90239	121, 136	90323	119	90393	118
61359	88	65524	92	90240	121, 136	90324	120	90394	118
61362	88	65606	92	90248	117	90325	120	90395	118
61365	88	65609	92	90251	116	90326	120	90398	118
61375	88	65612	92	90252	116	90327	120	90399	125
61380	88	65615	92	90253	116	90328	120	90401	139
61383	88	65618	92	90254	116	90329	120	90404	139
61391	88	65621	92	90255	116	90331	119	90406	139
61451	89	65624	92	90256	122, 137	90332	119	90407	139
61454	89	65630	92	90257	122, 137	90333	119	90408	139
61475	89	90131	112	90258	122, 137	90334	119	90409	139
61480	89	90160	112	90259	122, 137	90335	119	90411	139
61483	89	90165	112	90260	121	90340	124	90405	139
61498	89	90170	112	90263	121, 136	90341	124	90419	124
63298	88	90178	113	90264	121, 136	90342	124	90420	124
65001	91	90179	113	90265	121, 136	90343	124	90423	124
65003	91	90180	112	90266	121, 136	90344	124	90424	124
65006	91	90181	113	90267	121, 136	90345	124	90425	124
65009	91	90182	114	90268	121, 136	90346	124	90426	124
65012	91	90184	114	90269	121, 136	90347	124	90427	124

Numerical Index

art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page
90430	118	90556	147	90635	123, 137	90723	99	90826	107
90431	121, 136	90558	148	90636	123, 137	90724	99	90829	109
90432	116	90559	148	90637	123, 137	90726	98	90832	109
90440	122, 136	90560	146	90638	123, 137	90728	99	90836	109
90441	122, 136	90561	146	90639	123, 137	90750	104	90842	108
90442	122, 136	90562	146	90640	123, 137	90752	102	90844	72
90443	122, 136	90563	146	90641	137	90755	101	90845	72
90444	122, 136	90564	146	90642	137	90756	101	90846	73
90445	122, 136	90565	146	90643	137	90757	101	90848	56
90446	122, 136	90566	146	90651	135	90761	101	90849	56
90447	122, 136	90567	146	90654	138	90762	119	90851	73
90448	122, 136	90568	146	90655	138	90763	119	90852	72
90449	122, 136	90579	149	90661	144	90765	119	90853	72
90450	136	90581	149	90662	144, 146	90766	119	90854	82
90461	123, 136	90582	149		147, 148	90770	120	90855	72
90462	123, 136	90583	149		149	90772	94	90856	72
90463	123, 136	90584	149	90663	144	90773	94	90857	73
90464	123, 136	90585	149	90670	144	90774	94	90860	82
90465	123, 136	90586	149	90671	144	90775	95	90863	83
90466	123, 136	90587	149	90672	144	90776	95	90864	83
90467	123, 136	90588	141	90673	144	90777	95	90865	83
90468	123, 136	90590	141	90674	144	90778	95	90866	83
90469	136	90591	141	90675	144	90779	95	90869	82
90500	150	90593	139	90676	144	90781	95	90872	82
90502	150	90594	139	90677	144	90782	95	90873	82
90504	150	90601	135	90681	145	90784	95	90874	82
90505	150	90602	135	90682	145	90785	95	90875	83
90506	150	90604	121, 136	90683	145	90788	95	90876	16
90508	150	90605	121, 136	90684	145	90789	95	90877	16, 32, 39
90510	150	90606	121, 136	90685	145	90790	94	90878	83
90511	150	90607	121, 136	90686	145	90791	107	90879	81
90512	150	90608	122, 137	90687	145	90792	106	90880	81
90513	150	90609	122, 137	90688	145	90793	107	90881	81
90514	150	90610	122, 137	90690	145	90794	106	90882	81
90515	150	90611	122, 137	90691	145	90796	106	90883	81
90516	150	90612	122, 137	90692	145	90799	145	90884	81
90517	150	90613	122, 137	90693	145	90804	104	90885	81
90518	150	90614	122, 137	90695	144	90806	104	90886	81
90520	150	90615	122, 137	90694	145	90807	102	90887	81
90521	150	90616	137	90696	144	90808	102	90888	108
90522	150	90617	137	90701	96	90810	103	90891	32
90524	150	90618	137	90705	96	90811	103	90893	39
90528	150	90620	123, 138	90707	97	90812	107	90895	108
90530	150	90621	123, 138	90708	97	90813	107	90899	108
90534	150	90622	123, 138	90709	98	90814	103	90910	109
90536	150	90623	123, 138	90710	98	90815	107	90913	110
90538	150	90624	123, 138	90712	94	90816	107	90916	110
90540	150	90625	123, 138	90713	106	90818	107	90919	110
90548	150	90626	123, 138	90714	106	90819	107	90960	100
90549	150	90627	123, 138	90716	106	90821	56, 72, 82,	90961	100
90550	150	90628	123, 138	90717	96		83	90962	100
90551	150	90629	123, 138	90718	96	90823	56, 73, 82,	90963	100
90553	150	90630	123, 138	90719	106		83	90964	100
90554	150	90633	123, 137	90720	97	90824	82, 83	90965	100
90555	150	90634	123, 137	90721	96	90825	72	90966	100

Numerical Index

art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page
90967	100	91337	129	91620	132	91709	133	99907	97
90969	100	91343	129	91621	132	91710	133	99955	139
90970	100	91344	129	91622	132	91711	133	99956	139
90971	100	91345	129	91623	132	91712	133		
90972	100	91346	129	91624	132	91718	133		
90975	100	91347	129	91625	132	91719	133		
90980	100, 101	91348	129	91626	132	91720	133		
90981	100	91349	129	91627	132	91721	133		
90982	100	91350	129	91628	132	91722	133		
90983	100	91357	129	91638	132	91723	133		
90984	101	91358	129	91639	132	91724	133		
90985	101	91361	129	91640	132	91725	133		
90986	101	91362	129	91641	132	91726	133		
90987	101	91363	129	91642	132	91727	133		
90988	101	91364	129	91643	132	91728	133		
90989	101	91365	129	91644	132	92101	152		
90990	101	91366	129	91645	132	92104	152		
90991	100, 101	91372	130	91646	132	92107	152		
91010	84	91373	130	91647	132	92110	152		
91110	128	91374	130	91648	132	92113	152		
91112	120, 130, 133	91375	130	91654	132	92116	153		
91120	128	91376	130	91655	132	92119	153		
91123	128, 131, 134, 139	91377	130	91656	132	92130	153		
91125	128, 131, 134, 139	91383	130	91657	132	92133	153		
91130	131	91384	130	91658	132	92139	153		
91140	131	91385	130	91659	132	92142	153		
91150	134	91386	130	91660	132	92145	153		
91160	134	91387	130	91661	132	92148	153		
91170	140	91388	130	91662	132	92151	153		
91180	140	91389	130	91663	132	92154	153		
91302	129	91390	130	91664	132	92157	153		
91303	129	91391	130	91665	132	92160	153		
91304	129	91450	130	91666	132	92163	153		
91305	129	91451	130	91678	133	92166	153		
91306	129	91452	130	91679	133	92169	153		
91307	129	91453	130	91680	133	92172	153		
91308	129	91454	130	91681	133	92175	153		
91309	129	91455	130	91682	133	92178	153		
91315	129	91456	130	91683	133	92190	153		
91316	129	91457	130	91684	133	99633	138		
91317	129	91458	130	91685	133	99640	138		
91318	129	91459	130	91686	133	99641	138		
91319	129	91602	132	91672	133	99696	119		
91320	129	91603	132	91673	133	99697	119		
91321	129	91604	132	91693	133	99752	117		
91330	129	91605	132	91694	133	99753	117		
91331	129	91606	132	91695	133	99754	120		
91332	129	91607	132	91696	133	99755	120		
91333	129	91608	132	91697	133	99782	138		
91334	129	91609	132	91698	133	99805	138		
91335	129	91610	132	91699	133	99901	104		
91336	129	91611	132	91705	133	99902	104		
		91612	132	91706	133	99903	97		
		91613	132	91707	133	99904	97		
		91619	132	91708	133	99905	97		

Selection list for customized products

Please fax to WEITKOWITZ, Germany:
Fax: ++49 (0) 5171 / 7061 - 58

customer: _____ address: _____	customer: _____ phone: _____ fax: _____ email: _____ contact: _____
☐ straight cable lug ☐ 90°-angled cable lug 	☐ straight cable lug with two holes ☐ tubular cable lug with widened sleeve
☐ conductor-type: _____ cross section: _____ tubular cable lug / connector: ☐ tubular compr. cable lug / connector: ☐ surface: ☐ tin plated ☐ nickel plated ☐ uncoated material: ☐ Cu-ETP / ☐ Cu-HCP ☐ E-Al 99,5 ☐ other	
delivery quantity: _____ yearly requirement: _____ date of delivery: _____ signature: _____ date: _____	
Further requirements (please add drawings or further information): _____	
dimensions in mm: d1 _____ d2 _____ d3 _____ d4 _____ d5 _____ l _____ l2 _____ l3 _____ a _____ a2 _____ c1 _____ c2 _____ b _____ s _____ h _____ angle w _____	

Selection list for customized products

Please fax to WEITKOWITZ, Germany:
Fax: ++49 (0) 5171 / 7061 - 58

customer: _____
phone: _____
fax: _____
email: _____
contact: _____

conductor-type: _____
cross section: _____
tubular cable lug / connector: ☐
tubular compr. cable lug / connector: ☐
material: ☐ Cu-ETP / ☐ Cu-HCP ☐ E-Al 99,5 ☐ other

surface: ☐ tin plated ☐ nickel plated ☐ uncoated

delivery quantity: _____
yearly requirement: _____
date of delivery: _____
date: _____
signature: _____

Further requirements (please add drawings or further information): _____

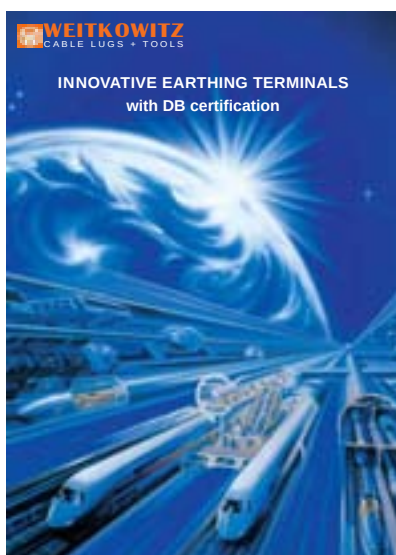
dimensions in mm:

d1 _____ l _____ c1 _____
d2 _____ l2 _____ c2 _____
d3 _____ l3 _____ b _____
d4 _____ a _____ s _____
d5 _____ a2 _____ h _____
angle w _____

customer: _____
address: _____

tubular oval-cable lug with two holes ☐	hook-flange-cable lug, right ☐	hook-flange-cable lug, left ☐	parallel-connector ☐
L-connector ☐	reducing-connector ☐	T-connector ☐	cord-end-sleeve ☐

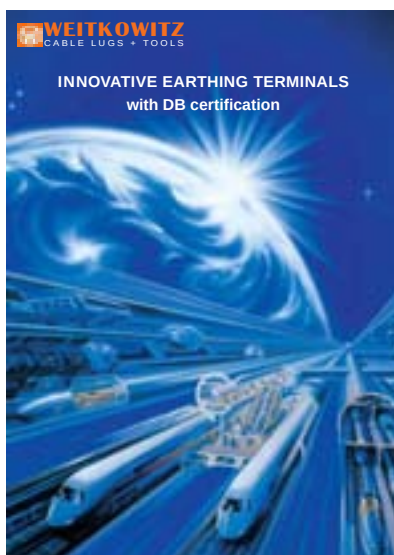
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