

# SOLDERLESS + INSULATED CABLE CONNECTORS, CABLE END SLEEVES

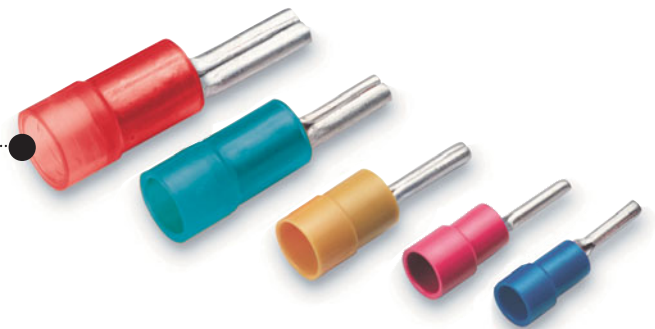


## Solderless cable connectors

- Highest copper quality according to DIN EN 13600
- Maximum electrical and mechanical capacity
- Greatest dimensional precision due to automated production according to automotive guidelines
- Tested according to the newest testing standards
- Compatible with all market standards
- Annealed to copper hardness F 20

## Insulated cable connectors

- Highest copper quality according to DIN EN 13600
- Premium insulation guarantees dielectric strength
- Greatest dimensional precision due to automated production according to automotive guidelines
- Tested according to the newest testing standards
- Compatible with all market standards
- Hard soldered ferrule seam, maximum electrical and mechanical capacity



## Cable end sleeves

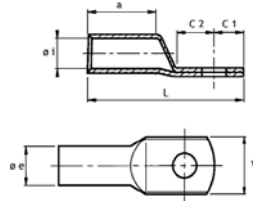
- Highest copper quality according to DIN EN 13600
- Premium insulation guarantees dielectric strength
- Identification via colour coding
- Adjusted crimp profile for tapered, finely stranded conductors according to IEC 228
- Improve contacting in the terminals
- Prevent finely stranded conductors from fanning out

## Solderless cable connectors

### Tubular cable lugs, Cu, standard design

#### Specifications

- Material: ETP Cu according to DIN EN 13600
- Surface: galvanically tin-coated, other surfaces available upon request
- Also available with inspection hole
- Also suitable for finely stranded conductors according to IEC 228 tubular cable lugs, Cu, standard design
- Annealed to copper hardness F 20



**R**

Cross sect. (mm <sup>2</sup> )	Bolt ø (mm)	W	øi	øe	C1	C2	a	L	Weight per 100 pcs ~kg	PU/pcs.	Article no.
0.75	3	4.8	1.4	3.2	2.3	4.8	6.9	16	0.06	100	18 0650
	4	8	1.4	3.2	4.1	6.6	6.9	19.6	0.06	100	18 0652
	5	8	1.4	3.2	4.1	6.6	6.9	19.6	0.06	100	18 0654
1.5	4	6.5	1.9	3.3	3.5	5	6	17	0.08	100	18 0660
	5	7.5	1.9	3.3	3.5	5	6	18	0.08	100	18 0662
	6	9	1.9	3.3	4.5	5.5	6	18.5	0.09	100	18 0664
2.5	4	8	2.3	3.9	3.8	6.1	6.9	20.1	0.17	100	18 0670
	5	8	2.3	3.9	3.8	6.1	6.9	20.1	0.17	100	18 0672
	6	10.7	2.3	3.9	6.1	8.1	6.9	25.2	0.17	100	18 0674
	8	12	2.3	3.9	6.1	8.1	6.9	25.2	0.17	100	18 0676
4	4	9	2.7	5	6.2	7.4	9	26	0.26	100	18 0680
	5	9	2.7	5	6.2	7.4	9	26	0.26	100	18 0682
	6	12	2.7	5	6.2	7.4	9	26	0.26	100	18 0684
	8	12	2.7	5	6.2	7.4	9	26	0.26	100	18 0686
6	5	10	3.5	6.5	6.8	6.5	9	26.5	0.5	100	18 0692
	6	10	3.5	6.5	6.8	6.5	9	26.5	0.6	100	18 0694
	8	12	3.5	6.5	6.8	6.5	9	26.5	0.65	100	18 0696
	10	15	3.5	6.5	9.8	9.5	9	32.5	0.7	100	18 0697
	12	17	3.5	6.5	12	12	9	35	0.71	100	18 0698
10	5	12	4.5	7	6.8	6.5	10	28	0.52	100	18 0700
	6	12	4.5	7	6.8	6.5	10	28	0.5	100	18 0702
	8	15	4.5	7	9.8	9.5	10	34	0.6	100	18 0704
	10	17	4.5	7	11.8	11.5	10	38	0.66	100	18 0705
	12	19	4.5	7	13	12.5	10	41	0.66	100	18 0706
16	5	12	5.5	8.5	6.8	6.5	13	31.5	0.87	100	18 0709
	6	12	5.5	8.5	6.8	6.5	13	31.5	0.84	100	18 0710
	8	15	5.5	8.5	9.8	9.5	13	37.5	0.99	100	18 0712
	10	17	5.5	8.5	11.8	11.5	13	41.5	1.07	100	18 0714
	12	19	5.5	8.5	13	12.5	13	44	1.05	100	18 0715
25	5	14	7	10	7	7	15	35.5	1.21	50	18 0718
	6	14	7	10	7	7	15	35.5	1.18	50	18 0720
	8	16	7	10	9.5	9.5	15	40.5	1.32	50	18 0722
	10	18	7	10	11.5	11.5	15	44.5	1.41	50	18 0724
	12	19	7	10	13	13.5	15	48	1.46	50	18 0725
	14	21	7	10	14.5	14.5	15	52.5	1.43	50	18 0726
35	6	17	8.5	12	7	7	17	39	1.85	50	18 0730
	8	17	8.5	12	9.5	9.5	17	44	2.03	50	18 0732
	10	19	8.5	12	11.5	11.5	17	48	2.17	50	18 0734
	12	21	8.5	12	13	13.5	17	51.5	2.23	50	18 0735
	14	21	8.5	12	14	14.5	17	53.5	2.24	50	18 0736
	16	26	8.5	12	16	16	17	58	2.26	50	18 0737
50	6	20	10	14	9.5	9.5	19	47	3.04	50	18 0739
	8	20	10	14	9.5	9.5	19	47	2.96	50	18 0740
	10	20	10	14	11.5	11.5	19	51	3.12	50	18 0742
	12	23	10	14	13	13.5	19	54.5	3.26	50	18 0744
	14	23	10	14	14	14.5	19	56.5	3.29	50	18 0745
	16	28	10	14	16	16	19	62	3.93	50	18 0746
	20	30	10	14	19	19	19	67	4.16	50	18 0747

## Tubular cable lugs, Cu, standard design



See previous page for description

Cross sect. (mm <sup>2</sup> )	Bolt ø (mm)	W	øi	øe	C1	C2	a	L	Weight per 100 pcs ~kg	PU/pcs.	Article no.
70	6	23	12	16.5	10	10	21	53	4.3	50	18 0749
	8	23	12	16.5	11.5	11.5	21	54	4.62	25	18 0750
	10	23	12	16.5	11.5	11.5	21	54	4.5	25	18 0752
	12	23	12	16.5	13	13.5	21	57.5	4.63	25	18 0754
	14	23	12	16.5	14	14.5	21	59.5	4.66	25	18 0755
	16	28	12	16.5	15.5	16	21	62.5	4.89	25	18 0756
	20	30	12	16.5	19	19	21	72	5.63	25	18 0758
95	8	26	13.5	18	11.5	11.5	25	59	5.68	25	18 0759
	10	26	13.5	18	11.5	11.5	25	59.5	5.56	25	18 0760
	12	26	13.5	18	13	13.5	25	63	5.73	25	18 0762
	14	26	13.5	18	14	14.5	25	65	5.79	25	18 0763
	16	28	13.5	18	15.5	16	25	68	5.93	25	18 0764
	20	36	13.5	18	22	22	25	82	6	25	18 0766
120	8	28	15	19.5	13	13.5	26	65.5	6.89	20	18 0768
	10	28	15	19.5	13	13.5	26	65.5	6.77	20	18 0770
	12	28	15	19.5	13	13.5	26	65.5	6.59	20	18 0772
	14	28	15	19.5	14	14.5	26	67.5	6.66	20	18 0773
	16	30	15	19.5	15.5	16	26	70.5	6.84	20	18 0774
	20	36	15	19.5	22	22	26	85	7.74	20	18 0776
150	8	31	16.5	21	14.5	14.5	30	73	8.39	20	18 0778
	10	31	16.5	21	14.5	14.5	30	73	8.28	20	18 0780
	12	31	16.5	21	14.5	14.5	30	73	8.1	20	18 0782
	14	31	16.5	21	14.5	14.5	30	73	7.96	20	18 0783
	16	31	16.5	21	15.5	16	30	75.5	8.06	20	18 0784
	20	36	16.5	21	22	22	30	88	8.8	20	18 0786
185	10	35	19	24	17	18	30	81	11.8	10	18 0788
	12	35	19	24	17	18	30	81	11.59	10	18 0790
	14	35	19	24	17	18	30	81	11.43	10	18 0791
	16	35	19	24	17	18	30	81	11.21	10	18 0792
	20	39	19	24	21	22	30	89	11.98	10	18 0794
240	10	39	21	26	17	18	35	88	14.08	10	18 0798
	12	39	21	26	17	18	35	88	13.87	10	18 0800
	14	39	21	26	17	18	35	88	13.71	10	18 0801
	16	39	21	26	17	18	35	88	13.49	10	18 0802
	20	39	21	26	21	22	35	96	14.21	10	18 0804
300	12	43	23.5	29.5	17	18	44	99	21.31	5	18 0818
	14	43	23.5	29.5	17	18	44	99	21.11	5	18 0819
	16	43	23.5	29.5	17	18	44	99	20.85	5	18 0820
	20	43	23.5	29.5	21	22	44	107	21.92	5	18 0822
400	12	49	27	34	23	23	44	112	32.62	5	18 0826
	14	49	27	34	23	23	44	112	32.39	5	18 0828
	16	49	27	34	23	23	44	112	32.08	5	18 0830
	20	49	27	34	23	23	44	112	31.25	5	18 0832

## Angled tubular cable lugs, Cu

### Standard design with 90° and 45° angle

#### Specifications

- Material: ETP Cu according to DIN EN 13600
- Surface: galvanically tin-coated, other surfaces available upon request
- Also suitable for finely stranded conductors according to IEC 228
- Annealed to copper hardness F 20



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#### 90° angle

Cross sect. (mm <sup>2</sup> )	Bolt ø (mm)	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
6	5	0.6	100	18 3160
	6	0.59	100	18 3161
	8	0.67	100	18 3162
	10	0.72	100	18 3163
	12	0.77	100	18 3164
10	5	0.6	100	18 3165
	6	0.59	100	18 3166
	8	0.67	100	18 3167
	10	0.72	100	18 3168
16	12	0.76	100	18 3169
	5	1.01	100	18 3170
	6	1	100	18 3171
	8	1.1	100	18 3172
25	10	1.17	100	18 3173
	12	1.23	100	18 3174
	5	1.34	100	18 3175
	6	1.31	100	18 3134
35	8	1.47	100	18 3135
	10	1.56	100	18 3176
	12	1.6	100	18 3177
	6	2.04	100	18 3156
50	8	2.28	100	18 3130
	10	2.39	100	18 3136
	12	2.54	100	18 3157
	6	3.13	100	18 3158
70	8	3.38	100	18 3131
	10	3.52	100	18 3137
	12	3.8	100	18 3159
	8	5.09	100	18 3132
95	10	5.34	100	18 3133
	12	5.44	100	18 3140
	16	5.85	100	18 3141
	8	6.11	50	18 3138
120	10	6.27	50	18 3139
	12	6.48	50	18 3142
	16	7.12	50	18 3143
	8	6.69	50	18 3144
150	10	7.1	50	18 3145
	12	7.23	50	18 3146
	16	7.81	50	18 3147
	10	8.2	50	18 3148
185	12	8.3	50	18 3149
	12	11.9	50	18 3150
	20	12	50	18 3152
240	10	14.6	20	18 3153
	12	14.4	20	18 3154
	20	14.8	20	18 3155

#### 45° angle

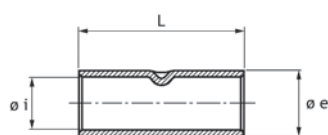
Cross sect. (mm <sup>2</sup> )	Bolt ø (mm)	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
6	5	0.6	100	18 3060
	6	0.59	100	18 3061
	8	0.67	100	18 3062
	10	0.72	100	18 3063
10	12	0.77	100	18 3064
	5	0.6	100	18 3065
	6	0.59	100	18 3066
	8	0.67	100	18 3067
16	10	0.72	100	18 3068
	12	0.76	100	18 3069
	5	1.01	100	18 3070
	6	1	100	18 3071
25	8	1.1	100	18 3072
	10	1.17	100	18 3073
	12	1.23	100	18 3074
	5	1.34	100	18 3075
35	6	1.31	100	18 3034
	8	1.47	100	18 3035
	10	1.56	100	18 3052
	12	1.6	100	18 3053
50	6	2.04	100	18 3056
	8	2.28	100	18 3030
	10	2.39	100	18 3036
	12	2.54	100	18 3057
70	6	3.13	100	18 3058
	8	3.38	100	18 3031
	10	3.52	100	18 3037
	12	3.76	100	18 3059
95	8	5.24	100	18 3032
	10	6.46	100	18 3033
	12	5.69	100	18 3040
	16	5.94	100	18 3041
120	8	6.3	50	18 3038
	10	6.46	50	18 3039
	12	6.68	50	18 3042
	16	7.06	50	18 3043
150	8	6.87	50	18 3044
	10	7.29	50	18 3045
	12	7.71	50	18 3046
	16	8.03	50	18 3047
185	10	8.6	50	18 3048
	12	13.2	50	18 3050
	16	13	50	18 3051

## Butt connectors, Cu, standard design

### Specifications

- Material: ETP Cu according to DIN EN 13600
- Surface: galvanically tin-coated, other surfaces available upon request
- Also suitable for finely stranded conductors according to IEC 228
- Annealed to copper hardness F 20

Cross sect. (mm <sup>2</sup> )	øi	øe	L	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
0.75	1.4	3.2	15.7	0.08	100	18 0900
1.5	1.8	3.3	14.5	0.08	100	18 0902
2.5	2.4	4	14.5	0.11	100	18 0904
4	2.7	5	19	0.25	100	18 0906
6	3.5	6.5	24	0.52	100	18 0908
10	4.5	7	28	0.6	100	18 0910
16	5.5	8.5	34	1.03	100	18 0912
25	7	10	38	1.43	100	18 0914
35	8.5	12	42	2.26	50	18 0916
50	10	14	48	3.36	50	18 0918
70	12	16.5	52	4.93	50	18 0920
95	13.5	18	59	5.85	50	18 0922
120	15	19.5	62	7.4	50	18 0924
150	16.5	21	72	9	50	18 0926
185	19	24	72	12.2	25	18 0928
240	21	26	82	15.2	25	18 0930
300	23.5	29.5	102	22.8	25	18 0932
400	27	34	102	29.6	10	18 0934



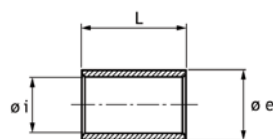
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## Parallel connectors, Cu, standard design

### Specifications

- Material: ETP Cu according to DIN EN 13600
- Surface: galvanically tin-coated, other surfaces available upon request
- Also suitable for finely stranded conductors according to IEC 228
- Annealed to copper hardness F 20

Cross sect. (mm <sup>2</sup> )	øi	øe	L	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
1.5	1.6	3.2	7	0.04	100	18 3180
2.5	2.3	3.9	7	0.09	100	18 3182
4-6	3.6	5.6	7	0.15	100	18 3184
10	4.5	6.7	9	0.16	100	18 3186
16	5.8	8.2	10	0.25	100	18 3188
25	7.5	10.5	11	0.49	50	18 3190
35	9	12.2	12	0.74	50	18 3192
50	11	15	16	1.13	50	18 3194
70	13.1	17	19	1.5	50	18 3196
95	14.5	19	20	2.1	25	18 3198
120	16.2	21	20	3.35	25	18 3200
150	18	23	20	4.9	25	18 3202
185	20.6	26	28	5	10	18 3204
240	23	28	31	6	10	18 3206

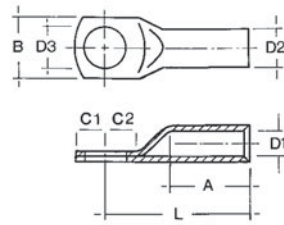


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**NEW**

## Tubular cable lugs for switchgear connections

- Design with narrow flange, without inspection hole
- Material: ETP Cu according to DIN EN 13 600, soft, F20, so that even large cross sections can be crimped manually
- Surface: galvanically tin-coated



Cross sect. (mm <sup>2</sup> )	Bolt ø (mm)	Dimension								Weight per 100 pcs. ~kg	PU/pcs.	Article no.
		ø D1	A	B	ø D3	ø D2	C1	C2	L			
35	6	8.5	17	15	6.5	12	7.5	7.5	32	1.78	25	18 3800
50	6	10	19	15	6.5	14	10	10	37	2.95	25	18 3802
	8	10	19	17	8.5	14	10	10	37	2.82	25	18 3804
70	10	10	19	19	10.5	14	11.5	12	39	3.08	25	18 3806
	6	12	21	17	6.5	16	10	10	43	4.22	25	18 3808
	8	12	21	17	8.5	16	10	10	43	4.10	25	18 3810
95	10	12	21	19	10.5	16	11.5	12	44	4.45	25	18 3812
	12	12	21	19	13	16	13	13	46	4.22	25	18 3814
	8	13.5	25	19	8.5	18	11.5	12	48	5.46	25	18 3816
120	10	13.5	25	19	10.5	18	11.5	12	48	5.13	25	18 3818
	12	13.5	25	19	13	18	13	13	49	5.15	25	18 3820
	8	15	26	19	8.5	19.5	11.5	14	51	5.94	10	18 3822
150	10	15	26	19	10.5	19.5	11.5	14	51	5.81	10	18 3824
	12	15	26	19	13	19.5	14	14	51	5.92	10	18 3826
	8	16.5	30	19	8.5	21	11.5	14	56	6.80	10	18 3828
185	10	16.5	30	19	10.5	21	11.5	14	56	6.75	10	18 3830
	12	16.5	30	19	13	21	15	15	57	7.15	10	18 3832
	10	19.5	30	24.5	10.5	24	11.5	18	65	10.59	10	18 3834
240	12	19.5	30	31	13	24	18	18	65	11.09	10	18 3836
	16	19.5	30	31	17	24	18	18	65	9.76	10	18 3838
	10	21.5	35	31	10.5	26	11.5	19	72	12.70	5	18 3840
300	12	21.5	35	31	13	26	21.5	19	72	13.72	5	18 3842
	16	21.5	35	31	17	26	21.5	19	72	13.28	5	18 3844
	10	23.5	44	31	10.5	30	11.5	24	87	19.70	5	18 3846
300	12	23.5	44	31	13	30	24	24	87	22.72	5	18 3848
	16	23.5	44	31	17	30	24	24	87	22.50	5	18 3850

Available upon request!

## Sleeves for compacted or tapered conductors, Cu, standard design

### Specifications

- Material: ETP Cu according to DIN EN 13600
- Surface: galvanically tin-coated
- Suitable for compacted, multi-stranded or tapered, finely stranded conductors for diameter equalisation (only narrow hex crimping!)

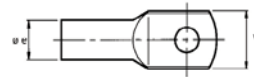
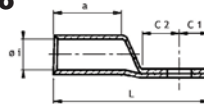


Cross sect. (mm <sup>2</sup> )	Length (mm)	PU/pcs.	Article no.
16	11	100	18 3400
25	14	100	18 3401
35	15	100	18 3402
50	18	50	18 3403
70	19	50	18 3404
95	21	50	18 3405
120	22	50	18 3406
150	26	25	18 3407
185	26	25	18 3408
240	30	25	18 3409
300	10	10	18 3410
400	10	10	18 3411

## Tubular cable lugs, Cu, designed for finely stranded conductors according to DIN 0295 and IEC 228

### Specifications

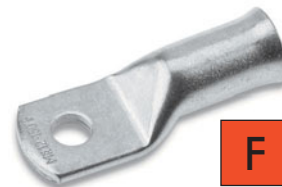
- Material: ETP Cu according to DIN EN 13600
- „Easy Entry“ flared cable entry
- Surface: galvanically tin-coated, other surfaces available upon request
- Annealed to copper hardness F 20



Cross sect. (mm <sup>2</sup> )	Bolt ø (mm)	W	øi	øe	C1	C2	a	L	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
10	5	12	5.6	8	6	7	12.6	32	0.81	100	18 3255
	6	12	5.6	8	6	7	12.6	32	0.65	100	18 3256
	8	15	5.6	8	8	10	12.6	36	0.71	100	18 3258
	10	15	5.6	8	8	10	12.6	36	0.85	100	18 3260
	12	15	5.6	8	8	10	12.6	36	0.8	100	18 3262
16	5	13	6.6	9.5	7	9	14.6	37.6	1.15	50	18 3265
	6	13	6.6	9.5	7	9	14.6	37.6	1.14	50	18 3266
	8	16	6.6	9.5	9	11	14.6	41.6	1.24	50	18 3268
	10	16	6.6	9.5	9	11	14.6	41.6	1.18	50	18 3270
	12	17.5	6.6	9.5	9	11	14.6	41.6	1.11	50	18 3272
25	5	15	7.9	11	9	11	16.5	43.5	1.73	50	18 3275
	6	15	7.9	11	9	11	16.5	43.5	1.7	50	18 3276
	8	17	7.9	11	9	11	16.5	43.5	1.65	50	18 3278
	10	17	7.9	11	9	11	16.5	43.5	1.58	50	18 3280
	12	18.5	7.9	11	9	11	16.5	43.5	1.49	50	18 3282
35	6	18	9.2	12.5	7	10	18.5	43.5	2.11	50	18 3286
	8	18	9.2	12.5	10	14	18.5	51	2.43	50	18 3288
	10	18	9.2	12.5	10	14	18.5	51	2.35	50	18 3290
	12	19	9.2	12.5	10	14	18.5	51	2.23	50	18 3292
	14	20.8	9.2	12.5	10	14.5	18.5	51	2.16	50	18 3294
50	6	21	11	15	10	14	21.5	55.5	3.75	50	18 3296
	8	21	11	15	10	14	21.5	55.5	3.88	50	18 3298
	10	21	11	15	10	14	21.5	55.5	3.78	50	18 3300
	12	21	11	15	10	14	21.5	55.5	3.62	50	18 3302
	14	21	11	15	10	14	21.5	55.5	3.5	50	18 3304

## Tubular cable lugs, Cu, designed for finely stranded conductors according to DIN 0295 and IEC 228

See previous page for description



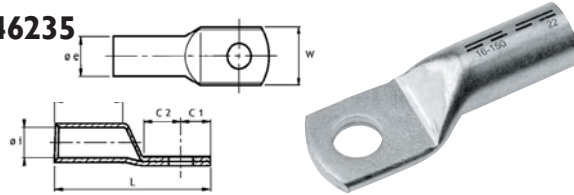
Cross sect. (mm <sup>2</sup> )	Bolt ø (mm)	W	øi	øe	C1	C2	a	L	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
70	6	24	13.1	17	13.5	15.5	27.5	67.5	5.47	25	18 3306
	8	24	13.1	17	13.5	15.5	27.5	67.5	5.31	25	18 3308
	10	24	13.1	17	13.5	15.5	27.5	67.5	5.21	25	18 3310
	12	24	13.1	17	13.5	15.5	27.5	67.5	5.15	25	18 3312
	14	24	13.1	17	13.5	15.5	27.5	67.5	5.02	25	18 3314
	16	24	13.1	17	13.5	15.5	27.5	67.5	4.86	25	18 3316
95	8	28	14.5	19	13	17	32.5	75.5	7.66	25	18 3318
	10	28	14.5	19	13	17	32.5	75.5	7.55	25	18 3320
	12	28	14.5	19	13	17	32.5	75.5	7.37	25	18 3322
	14	28	14.5	19	13	17	32.5	75.5	7.15	25	18 3324
	16	28	14.5	19	13	17	32.5	75.5	7.06	25	18 3326
120	8	30	16.2	21	17	17	31.5	80	9.76	10	18 3328
	10	30	16.2	21	17	17	31.5	80	9.64	10	18 3330
	12	30	16.2	21	17	17	31.5	80	9.54	10	18 3332
	14	30	16.2	21	17	17	31.5	80	9.29	10	18 3334
	16	30	16.2	21	17	17	31.5	80	9.1	10	18 3336
150	8	33	18	23	17	18	35.5	89	11.25	10	18 3338
	10	33	18	23	17	18	31.5	89	11.12	10	18 3340
	12	33	18	23	17	18	31.5	89	10.93	10	18 3342
	14	33	18	23	17	18	31.5	89	12.77	10	18 3344
	16	33	18	23	17	18	31.5	89	12.56	10	18 3346
	20	33	18	23	13.5	21.5	31.5	89	11.98	10	18 3348
185	10	37	20.6	26	19	20	39.6	96	16.49	10	18 3350
	12	37	20.6	26	19	20	39.6	96	16.27	10	18 3352
	14	37	20.6	26	19	20	39.6	96	16.1	10	18 3354
	16	37	20.6	26	19	20	39.6	96	15.88	10	18 3356
	20	37	20.6	26	19	20	39.6	96	15.25	10	18 3360
240	12	41	23	28	19	21	41	101	17.44	10	18 3362
	14	41	23	28	19	21	41	101	17.28	10	18 3364
	16	41	23	28	19	21	41	101	17.07	10	18 3366
	20	41	23	28	19	21	41	101	16.49	10	18 3370
300	12	47	26	32	20	25	43	111	26.33	10	18 3372
	14	47	26	32	20	25	43	111	26.14	10	18 3374
	16	47	26	32	20	25	43	111	25.88	10	18 3376
	20	47	26	32	20	25	43	111	25.2	10	18 3380



## Tubular compression cable lugs, Cu, DIN 46235

### Specifications

- Material: ETP Cu according to DIN EN 13600
- Surface: galvanically tin-coated, other surfaces available upon request
- Especially suitable for finely stranded conductors according to IEC 228
- Annealed to copper hardness F 20



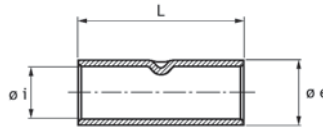
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Cross sect (mm <sup>2</sup> )	Bolt ø (mm)	Index	W	øi	øe	C1	C2	a	L	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
6	5	5	8.5	3.8	5.5	7	9	11	32	0.34	100	18 3500
	6	5	8.5	3.8	5.5	8.5	9	11	33.5	0.32	100	18 3501
	8	5	13	3.8	5.5	11	9	11	36	0.35	100	18 3570
10	5	6	9	4.5	6	7	11	12	35	0.39	100	18 3502
	6	6	9	4.5	6	8.5	11	12	36.5	0.38	100	18 3503
	8	6	13	4.5	6	11	11	12	39	0.38	100	18 3504
16	6	8	13	5.5	8.5	8.5	12.5	20.5	45.5	1.32	100	18 3505
	8	8	13	5.5	8.5	11	12.5	20.5	48	1.27	100	18 3506
	10	8	17	5.5	8.5	13	12.5	20.5	50	1.31	100	18 3507
	12	8	18	5.5	8.5	14	12.5	20.5	51	1.35	100	18 3508
25	6	10	14	7	10	8.5	13.5	20.5	47.5	1.67	50	18 3509
	8	10	16	7	10	11	13.5	20.5	50	1.64	50	18 3510
	10	10	17	7	10	13	13.5	20.5	52	1.72	50	18 3511
	12	10	19	7	10	14	13.5	20.5	53	1.65	25	18 3512
35	6	12	17	8.2	12.5	8.5	14.5	20.5	51.5	2.5	100	18 3572
	8	12	17	8.2	12.5	11	14.5	20.5	54	3.44	50	18 3513
	10	12	19	8.2	12.5	13	14.5	20.5	56	3.34	50	18 3514
	12	12	21	8.2	12.5	14	14.5	20.5	57	3.21	50	18 3515
	14	12	21	8.2	12.5	15.5	14.5	20.5	58.5	4.4	25	18 3516
50	8	14	20	10	14.5	11	16.5	30	64	5.04	50	18 3517
	10	14	22	10	14.5	13	16.5	30	66	4.93	50	18 3518
	12	14	24	10	14.5	14	16.5	30	67	5.06	50	18 3519
	14	14	24	10	14.5	15.5	16.5	30	68.5	4.96	25	18 3520
	16	14	28	10	14.5	17	16.5	30	70	4.77	25	18 3521
70	8	16	24	11.5	16.5	11	16.5	31	67	6.76	25	18 3522
	10	16	24	11.5	16.5	13	16.5	31	69	6.64	25	18 3523
	12	16	24	11.5	16.5	14	16.5	31	70	6.8	25	18 3524
	14	16	24	11.5	16.5	15.5	16.5	31	71.5	6.12	25	18 3525
	16	16	30	11.5	16.5	17	16.5	31	73	6.43	25	18 3526
95	8	18	28	13.5	19	11	16.5	37	77	9.95	25	18 3574
	10	18	28	13.5	19	13	16.5	37	79	10.22	25	18 3527
	12	18	28	13.5	19	14	16.5	37	80	10	25	18 3528
	14	18	28	13.5	19	15.5	16.5	37	81.5	10	25	18 3529
	16	18	32	13.5	19	17	16.5	37	83	9.58	25	18 3530
120	10	20	32	15.5	21	13	21	38	84	11.36	25	18 3531
	12	20	32	15.5	21	14	21	38	85	11.28	25	18 3532
	14	20	32	15.5	21	15.5	21	38	86.5	11.7	25	18 3533
	16	20	32	15.5	21	17	21	38	88	11.63	25	18 3534
	20	20	38	15.5	21	20	21	38	91	12.18	25	18 3535
150	10	22	34	17	23.5	13	21	41	92	16.97	10	18 3536
	12	22	34	17	23.5	14	21	41	93	15.16	10	18 3537
	14	22	34	17	23.5	15.5	21	41	94.5	16.38	10	18 3538
	16	22	34	17	23.5	17	21	41	96	17.43	10	18 3539
	20	22	40	17	23.5	20	21	41	99	17.65	10	18 3540
185	10	25	37	19	25.5	13	24	42	96	18.96	10	18 3541
	12	25	37	19	25.5	14	24	42	97	18.89	10	18 3542
	14	25	37	19	25.5	15.5	24	42	98.5	19.21	10	18 3543
	16	25	37	19	25.5	17	24	42	100	19.92	10	18 3544
	20	25	40	19	25.5	20	24	42	103	20.09	10	18 3545
240	12	28	42	21.5	29	14	24	51	107	27.55	5	18 3546
	14	28	42	21.5	29	15.5	24	51	108.5	28.7	5	18 3547
	16	28	42	21.5	29	17	24	51	110	28.44	5	18 3548
	20	28	45	21.5	29	20	24	51	113	28.44	5	18 3549
300	14	32	48	24.5	32	15.5	24	55	116.5	37.4	5	18 3550
	16	32	48	24.5	32	17	24	55	118	32.46	5	18 3551
	20	32	48	24.5	32	20	24	55	121	32.72	5	18 3552
400	14	38	55	27.5	38.5	23	24	72	139	68.5	5	18 3553
	16	38	55	27.5	38.5	23	24	72	139	68.2	5	18 3554
	20	38	55	27.5	38.5	23	24	72	139	67.5	5	18 3555
500	16	42	60	31	42	23	26	75	149	81	5	18 3556
	20	42	60	31	42	23	26	75	149	81	5	18 3557
625	16	44	60	34.5	44	23	26	83	159	84	5	18 3558
	20	44	60	34.5	44	23	26	83	159	84	5	18 3559

## Compression joints, Cu, DIN 46267, part 1

### Specifications

- Material: ETP Cu according to DIN EN 13600
- Surface: galvanically tin-coated, other surfaces available upon request
- For connections with strain relief
- Especially suitable for finely stranded conductors according to IEC 228
- Annealed to copper hardness F 20



D

Cross sect. (mm <sup>2</sup> )	Index	øi	øe	L	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
6	5	3.8	5.5	31	0.34	100	18 3700
10	6	4.5	6	31	0.34	100	18 3701
16	8	5.5	8.5	51	1.5	100	18 3702
25	10	7	10	51	1.82	50	18 3703
35	12	8.2	12.5	51	3.17	50	18 3704
50	14	10	14.5	57	4.39	50	18 3705
70	16	11.5	16.5	57	5.57	50	18 3706
95	18	13.5	19	71	8.86	25	18 3707
120	20	15.5	21	71	9.95	25	18 3708
150	22	17	23.5	81	14.89	10	18 3709
185	25	19	25.5	86	17.37	10	18 3710
240	28	21.5	29	91	24.07	10	18 3711
300	32	24.5	32	101	29.88	5	18 3712
400	38	27.5	38.5	151	76.54	5	18 3713
500	42	31	42	161	90.27	1	18 3714
625	44	34.5	44	161	83.83	1	18 3715

## Tubular compression cable lugs, Al, DIN 46329

made of E-Al, bare, barrier seal design with oil stop.



AL

NEW

Bore	Index	D1 mm	D2 mm	A mm	B mm	L mm	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
50 mm <sup>2</sup> rm/sm and 70 mm <sup>2</sup> se cross section									
M 8	16	9.8	8.4	42	25	62	2.75	4	18 3617
M10	16	9.8	10.5	42	25	62	2.7	4	18 3618
M12	16	9.8	13	42	25	62	2.65	4	18 3619
70 mm <sup>2</sup> rm/sm and 95 mm <sup>2</sup> se cross section									
M8	18	11.2	8,4	52	25	72	3.45	4	18 3622
M10	18	11.2	10.5	52	25	72	3.8	4	18 3623
M12	18	11.2	13	52	25	72	3.35	4	18 3624
95 mm <sup>2</sup> rm/sm and 120 mm <sup>2</sup> se cross section									
M10	22	13.2	10.5	56	25	75	6.9	4	18 3627
M12	22	13.2	13	56	25	75	4.92	4	18 3628
M16	22	13.2	17	56	25	75	6	4	18 3630
120 mm <sup>2</sup> rm/sm and 150 mm <sup>2</sup> se cross section									
M10	22	14.7	10.5	56	30	80	5.95	4	18 3631
M12	22	14.7	13	56	30	80	5.84	4	18 3632
M16	22	14.7	17	56	30	80	6.6	4	18 3634
150 mm <sup>2</sup> rm/sm and 185 mm <sup>2</sup> se cross section									
M10	25	16.3	10.5	60	30	90	8.5	4	18 3636
M12	25	16.3	13	60	30	90	7.73	4	18 3637
M16	25	16.3	17	60	30	90	7.6	4	18 3639
M20	25	16.3	21	60	30	90	8.2	4	18 3640
185 mm <sup>2</sup> rm/sm and 240 mm <sup>2</sup> se cross section									
M10	28	18.3	10.5	60	30	91	11	4	18 3641
M12	28	18.3	13	60	30	91	9.88	4	18 3642
M16	28	18.3	17	60	30	91	10.1	4	18 3644
M20	28	18.3	21	60	30	91	10	4	18 3645
240 mm <sup>2</sup> rm/sm and 300 mm <sup>2</sup> se cross section									
M10	32	21	10.5	70	38	103	15.5	4	18 3646
M12	32	21	13	70	38	103	13.8	4	18 3647
M16	32	21	17	70	38	103	13.48	4	18 3648
M20	32	21	21	70	38	103	15	4	18 3649
300 mm <sup>2</sup> rm/sm cross section									
M12	34	23.3	13	70	38	103	17.6	1	18 3650
M16	34	23.3	17	70	38	103	17.28	1	18 3651
M20	34	23.3	21	70	38	103	17.4	1	18 3652
400 mm <sup>2</sup> cross section									
M12	38	26	13	73	38	116	38	1	18 3653
M16	38	26	17	73	38	116	37.4	1	18 3654
M20	38	26	21	73	38	116	40.2	1	18 3655
500 mm <sup>2</sup> cross section									
M12	44	29	13	79	44	122	43.7	1	18 3656
M16	44	29	17	79	44	122	43.3	1	18 3657
M20	44	29	21	79	44	122	43	1	18 3658

## Compression joints, Al, DIN 46267, part 2

made of E-Al, bare. For pre-rounded sm/se sector-shaped conductors.



AL

Cross sect. rm/sm (mm <sup>2</sup> )	Cross sect. se (mm <sup>2</sup> )	Index	Interior ø mm	Length mm	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
35	50	14	8	85	2.6	10	18 3860
50	70	16	9.8	85	3.2	10	18 3861
70	95	18	11.2	105	5.3	10	18 3862
95	120	22	13.2	105	7.6	10	18 3863
120	150	22	14.7	105	7.8	10	18 3864
150	185	25	16.3	125	10.7	10	18 3865
185	240	28	18.3	125	14.3	5	18 3866
240	300	32	21	145	20.3	5	18 3867
300	—	34	23.3	145	22.2	1	18 3868
400	—	38	26	210	40.8	1	18 3869

## Compression cable lugs, Al-Cu

made of E-Al and E-Cu according to EN 13600, bare, barrier seal with solid Cu screw mounting link. Tube dimensions according to DIN 46329, with compression markings. For screwing Al connections to Cu rails. For strain-relieved Al cables according to DIN 48201, part 1 and Al conductors according to DIN EN 50182. For pre-rounded sector-shaped conductors.



AL

Cross sect. rm/sm (mm <sup>2</sup> )	Cross sect. se (mm <sup>2</sup> )	Index	D1 mm	D2 mm	B mm	L mm	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
25 mm <sup>2</sup> rm/sm and 35 mm <sup>2</sup> se cross section									
25	35	12	6.8	8.5	25	61	3.2	10	18 3910
25	35	12	6.8	10.5	25	61	3.1	10	18 3911
25	35	12	6.8	13	25	61	3	10	18 3912
35 mm <sup>2</sup> rm/sm and 50 mm <sup>2</sup> se cross section									
35	50	14	8	10.5	25	71	3.8	10	18 3914
35	50	14	8	13	25	71	3.6	10	18 3915
50 mm <sup>2</sup> rm/sm and 70 mm <sup>2</sup> se cross section									
50	70	16	9.8	10.5	25	72	4.3	10	18 3918
50	70	16	9.8	13	25	72	4.1	10	18 3919
70 mm <sup>2</sup> rm/sm and 95 mm <sup>2</sup> se cross section									
70	95	18	11.2	10.5	25	82	5.3	10	18 3923
70	95	18	11.2	13	25	82	5.1	10	18 3924
95 mm <sup>2</sup> rm/sm and 120 mm <sup>2</sup> se cross section									
95	120	22	13.2	13	30	85	9.9	10	18 3928
95	120	22	13.2	17	30	85	10.5	10	18 3930
120 mm <sup>2</sup> rm/sm and 150 mm <sup>2</sup> se cross section									
120	150	22	14.7	13	30	87	10.6	10	18 3932
120	150	22	14.7	17	30	87	10	10	18 3934
150 mm <sup>2</sup> rm/sm and 185 mm <sup>2</sup> se cross section									
150	185	25	16.3	13	30	104	16.2	5	18 3937
150	185	25	16.3	17	30	104	15.7	5	18 3939
185 mm <sup>2</sup> rm/sm and 240 mm <sup>2</sup> se cross section									
185	240	28	18.3	13	30	105	21.8	5	18 3942
185	240	28	18.3	17	30	105	21.4	5	18 3944
240 mm <sup>2</sup> rm/sm and 300 mm <sup>2</sup> se cross section									
240	300	32	21	13	35	120	29.8	5	18 3946
240	300	32	21	17	35	120	29	5	18 3948
300 mm <sup>2</sup> rm/sm cross section									
300		34	24.5	17	40	120	40.7	1	18 3951
300		34	24.5	21	40	120	39.5	1	18 3952

## Compression joints, Al-Cu, DIN 46267, part 2

made of E-Al and E-Cu according to EN 13600, bare. For connecting Cu cables according to DIN 48201, Al cables according to DIN 48201, part 1 and Al conductors DIN EN 50182.



AL

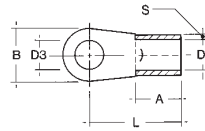
NEW

Cross sect. Al mm <sup>2</sup>	Cross sect. Al se (mm <sup>2</sup> )	Cross sect. Cu (mm <sup>2</sup> )	Index Al	Index Cu	Al mm	Cu mm	Length mm	Weight Cu kg/100	Weight total kg/100	Article no.
70 mm <sup>2</sup> Al rm/sm and 95 mm <sup>2</sup> Al se cross section										
70	95	16	18	8	11.2	5.5	79	0.71	4.1	18 3420
70	95	25	18	10	11.2	7	79	0.89	3.95	18 3421
70	95	35	18	12	11.2	8.2	79	1.62	4.9	18 3422
70	95	50	18	14	11.2	10	85	2.36	5.7	18 3423
70	95	70	18	16	11.2	11.5	96	2.92	7.25	18 3424
70	95	95	18	18	11.2	13.5	95	4.96	9.36	18 3425
70	95	120	18	20	11.2	15.5	99	5.64	10.54	18 3426
95 mm <sup>2</sup> Al rm/sm and 120 mm <sup>2</sup> Al se cross section										
95	120	16	22	8	13.2	5.5	79	0.71	6.15	18 3430
95	120	25	22	10	13.2	7	79	0.89	6.3	18 3431
95	120	35	22	12	13.2	8.2	79	1.52	6.8	18 3432
95	120	50	22	14	13.2	10	85	2.36	8.05	18 3433
95	120	70	22	16	13.2	11.5	87	3.11	8.2	18 3434
95	120	95	22	18	13.2	13.5	95	4.96	10.35	18 3435
95	120	120	22	20	13.2	15.5	95	5.64	11.55	18 3436
120 mm <sup>2</sup> Al rm/sm and 150 mm <sup>2</sup> Al se cross section										
120	150	35	22	12	14.7	8.2	81	1.52	7.6	18 3440
120	150	50	22	14	14.7	10	87	2.36	7.9	18 3441
120	150	70	22	16	14.7	11.5	89	3.11	8.5	18 3442
120	150	95	22	18	14.7	13.5	97	4.86	11	18 3443
120	150	120	22	20	14.7	15.5	97	5.64	10.28	18 3444
150 mm <sup>2</sup> Al rm/sm and 185 mm <sup>2</sup> Al se cross section										
150	185	16	25	8	16.3	5.4	92	0.71	7.8	18 3450
150	185	25	25	10	16.3	6.8	92	0.89	8	18 3451
150	185	35	25	12	16.3	8.2	92	1.62	8.4	18 3452
150	185	50	25	14	16.3	10	99	2.36	10.2	18 3453
150	185	70	25	16	16.3	11.5	100	3.11	10.35	18 3454
150	185	95	25	18	16.3	13.5	108	4.96	12.65	18 3455
150	185	120	25	20	16.3	15.5	108	5.64	13.9	18 3456
150	185	150	25	22	16.3	17	124	8.23	16.7	18 3457
185 mm <sup>2</sup> Al rm/sm and 240 mm <sup>2</sup> Al se cross section										
185	240	50	28	14	18.3	10	99	2.36	12.1	18 3460
185	240	70	28	16	18.3	11.5	100	3.11	13	18 3461
185	240	95	28	18	18.3	13.5	108	4.96	14.45	18 3462
185	240	120	28	20	18.3	15.5	108	5.64	13.72	18 3463
185	240	150	28	22	18.3	17	113	8.23	19.55	18 3464
185	240	185	28	25	18.3	19	116	9.62	21	18 3465
240 mm <sup>2</sup> Al rm/sm and 300 mm <sup>2</sup> Al se cross section										
240	300	50	32	14	21	10	110	2.36	16.5	18 3470
240	300	70	32	16	21	11.5	111	3.11	18	18 3471
240	300	95	32	18	21	13.5	119	4.96	19	18 3472
240	300	120	32	20	21	15.5	119	5.64	20.5	18 3473
240	300	150	32	22	21	17	124	8.23	23.3	18 3474
240	300	185	32	25	21	19	127	9.62	25.5	18 3475
240	300	240	32	28	21	21.5	128	12.71	30.1	18 3476
300 mm <sup>2</sup> Al rm/sm and 300 mm <sup>2</sup> Al se cross section										
300	300	120	34	20	23.5	15.5	119	5.64	27.8	18 3480
300	300	150	34	22	23.5	17	124	8.23	31.1	18 3481
300	300	185	34	25	23.5	19	127	9.62	32.7	18 3482
300	300	240	34	28	23.5	21.5	128	12.71	37.5	18 3483
300	300	300	34	32	23.5	24.5	134	16.1	41.7	18 3484

## Solderless terminals, ring-type, Cu, DIN 46234

### Specifications

- Material: ETP Cu according to DIN EN 13600
- Surface: galvanically tin-coated, other surfaces available upon request
- Especially suitable for finely stranded conductors according to IEC 228

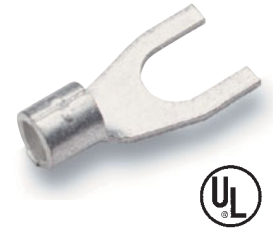
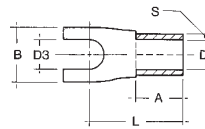


Cross sect. (mm <sup>2</sup> )	Bolt ø (mm)	Nominal size acc. to DIN	D1	D3	A	B	L	S	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
0.5 - 1	3	3 - 1	1.6	3.2	5	6	11	0.8	0.07	100	18 0400
	4	4 - 1	1.6	4.3	5	8	12	0.8	0.07	100	18 0402
	5	5 - 1	1.6	5.3	5	10	13	0.8	0.07	100	18 0403
1.5 - 2.5	3	3 - 2.5	2.3	3.2	5	6	11	0.8	0.07	100	18 0407
	4	4 - 2.5	2.3	4.3	5	8	12	0.8	0.08	100	18 0408
	5	5 - 2.5	2.3	5.3	5	10	14	0.8	0.09	100	18 0410
	6	6 - 2.5	2.3	6.5	5	11	16	0.8	0.11	100	18 0412
	8	8 - 2.5	2.3	8.4	5	14	17	0.8	0.13	100	18 0413
4 - 6	4	4 - 6	3.6	4.3	6	8	14	1	0.14	100	18 0416
	5	5 - 6	3.6	5.3	6	10	15	1	0.16	100	18 0418
	6	6 - 6	3.6	6.5	6	11	16	1	0.16	100	18 0420
	8	8 - 6	3.6	8.4	6	14	19	1	0.22	100	18 0422
	10	10 - 6	3.6	10.5	6	18	21	1	0.28	100	18 0423
10	5	5 - 10	4.5	5.3	8	10	16	1.1	0.23	100	18 0426
	6	6 - 10	4.5	6.5	8	11	17	1.1	0.25	100	18 0428
	8	8 - 10	4.5	8.4	8	14	20	1.1	0.3	100	18 0430
	10	10 - 10	4.5	10.5	8	18	21	1.1	0.35	100	18 0432
	12	12 - 10	4.5	13	8	22	23	1.1	0.43	100	18 0434
16	5	5 - 16	5.8	5.3	10	11	20	1.2	0.39	100	18 0436
	6	6 - 16	5.8	6.5	10	11	20	1.2	0.38	100	18 0438
	8	8 - 16	5.8	8.4	10	14	22	1.2	0.43	100	18 0440
	10	10 - 16	5.8	10.5	10	18	24	1.2	0.5	100	18 0442
	12	12 - 16	5.8	13	10	22	26	1.2	0.5	100	18 0444
25	5	5 - 25	7.5	5.3	11	12	25	1.5	0.7	100	18 0446
	6	6 - 25	7.5	6.5	11	12	25	1.5	0.69	100	18 0448
	8	8 - 25	7.5	8.4	11	16	25	1.5	0.75	100	18 0450
	10	10 - 25	7.5	10.5	11	18	26	1.5	0.8	100	18 0452
	12	12 - 25	7.5	13	11	22	31	1.5	0.92	100	18 0454
35	16	16 - 25	7.5	17	11	28	35	1.5	0.92	100	18 0456
	6	6 - 35	9	6.5	12	15	26	1.6	1.01	100	18 0458
	8	8 - 35	9	8.4	12	16	26	1.6	0.98	100	18 0460
	10	10 - 35	9	10.5	12	18	27	1.6	1	100	18 0462
	12	12 - 35	9	13	12	22	31	1.6	1.26	100	18 0464
50	16	16 - 35	9	17	12	28	36	1.6	1.47	100	18 0466
	6	6 - 50	11	6.5	16	18	34	1.8	1.75	100	18 0468
	8	8 - 50	11	8.4	16	18	34	1.8	1.68	100	18 0470
	10	10 - 50	11	10.5	16	18	34	1.8	1.6	100	18 0472
	12	12 - 50	11	13	16	22	36	1.8	1.8	100	18 0474
70	16	16 - 50	11	17	16	28	40	1.8	2.1	100	18 0476
	6	6 - 70	13	6.5	18	22	38	2	2.7	100	18 0478
	8	8 - 70	13	8.4	18	22	38	2	2.6	100	18 0480
	10	10 - 70	13	10.5	18	22	38	2	2.5	100	18 0482
	12	12 - 70	13	13	18	22	38	2	2.4	100	18 0484
95	16	16 - 70	13	17	18	28	42	2	2.7	100	18 0486
	8	8 - 95	15	8.4	20	24	42	2.5	4.02	100	18 0488
	10	10 - 95	15	10.5	20	24	42	2.5	3.92	100	18 0490
	12	12 - 95	15	13	20	24	42	2.5	3.9	100	18 0492
	16	16 - 95	15	17	20	28	44	2.5	3.7	100	18 0494
120	8	8 - 120	17	8.4	22	24	44	3	5.8	100	18 0496
	10	10 - 120	17	10.5	22	24	44	3	5.6	100	18 0498
	12	12 - 120	17	13	22	24	44	3	5.4	100	18 0500
	16	16 - 120	17	17	22	28	48	3	5.8	100	18 0502
150	10	10 - 150	19	10.5	24	30	50	3.2	7.7	100	18 0504
	12	12 - 150	19	13	24	30	50	3.2	7.6	100	18 0506
	16	16 - 150	19	17	24	30	50	3.2	7.5	100	18 0508
185	12	12 - 185	21	13	28	36	50	3.5	10.8	100	18 0510
	16	16 - 185	21	17	28	36	50	3.5	10.2	100	18 0512
240	12	12 - 240	23.5	13	32	38	56	4	14.70	100	18 0514
	16	16 - 240	23.5	17	32	38	56	4	14.30	100	18 0516

## Solderless terminal, fork-type, Cu

### Specifications

- Material: ETP Cu according to DIN EN 13600
- Surface: galvanically tin-coated
- Hard soldered ferrule seam
- For connections with strain relief
- Especially suitable for finely stranded conductors according to IEC 228

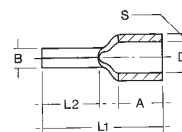


Cross sect. (mm <sup>2</sup> )	Bolt ø (mm)	D1	D3	A	B	L	S	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
0.5 - 1	3	1.6	3.2	5	5.8	11	0.8	0.06	100	18 0520
	4	1.6	4.3	5	7	12	0.8	0.07	100	18 0522
	5	1.6	5.3	5	9.6	13	0.8	0.07	100	18 0524
1.5 - 2.5	3	2.3	3.2	5	5.8	11	0.8	0.06	100	18 0530
	4	2.3	4.3	5	7	12	0.8	0.08	100	18 0532
	5	2.3	5.3	5	9.6	13	0.8	0.09	100	18 0534
	6	2.3	6.5	5	12	13	0.8	0.12	100	18 0536
4 - 6	4	3.6	4.3	6	8.5	14	1	0.14	100	18 0540
	5	3.6	5.3	6	9	14	1	0.16	100	18 0542
	6	3.6	6.5	6	12.5	18	1	0.17	100	18 0544
10	8	3.6	8.4	6	15	21	1	0.2	100	18 0546
	5	4.5	5.3	7	10.5	17	1.1	0.22	100	18 0550
	6	4.5	6.5	7	10.5	17	1.1	0.25	100	18 0552
16	5	5.8	5.3	10	11	20	1.2	0.358	100	18 0560
	6	5.8	6.5	10	11	20	1.2	0.358	100	18 0562

## Pin terminals, Cu, 0.5 - 6 mm acc. to DIN 46230

### Specifications

- Material: ETP Cu according to DIN EN 13600
- Surface: galvanically tin-coated
- Hard soldered ferrule seam
- For connections with strain relief
- Especially suitable for finely stranded conductors according to IEC 228



Cross sect. (mm <sup>2</sup> )	Bolt ø (mm)	L1	L2	D1	A	B	S	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
0.5 - 1	1.8	17	10	1.8	5	1.9	0.8	0.06	100	18 0590
1.5-2,5	2.3	17	10	2.3	5	1.9	0.8	0.07	100	18 0592
4 - 6	3.4	20	11	3.6	6	2.7	0.8	0.15	100	18 0594
10	4.5	24.5	11	4.3	10	4.3	1	0.27	100	18 0600
16	6	29.5	15	5.4	11.5	5.8	1	0.42	100	18 0602
25	7	33.5	15	6.7	13.5	6.8	1.2	0.66	100	18 0604
35	8	40.5	20	8.2	16	8	1.5	1.2	50	18 0606
50	9.5	45	20	9.5	19	9.5	1.8	1.91	50	18 0608
70	11	55	23	11.2	24	11	2	3	50	18 0610
95	12.5	55	23	13.5	24	12.5	2.5	4.3	50	18 0612

## Tubular cable lug set

in a premium raaco component box with crimping pliers

Content:

255 pieces, sorted:	PU	Article no.
• 25 tubular cable lugs, 6 mm <sup>2</sup> , M6		18 0694
• 25 tubular cable lugs, 6 mm <sup>2</sup> , M8		18 0696
• 25 tubular cable lugs, 10 mm <sup>2</sup> , M6		18 0702
• 25 tubular cable lugs, 10 mm <sup>2</sup> , M8		18 0704
• 25 tubular cable lugs, 16 mm <sup>2</sup> , M8		18 0712
• 25 tubular cable lugs, 25 mm <sup>2</sup> , M8		18 0722
• 25 tubular cable lugs, 25 mm <sup>2</sup> , M10		18 0724
• 20 tubular cable lugs, 35 mm <sup>2</sup> , M8		18 0732
• 20 tubular cable lugs, 35 mm <sup>2</sup> , M10		18 0734
• 20 tubular cable lugs, 50 mm <sup>2</sup> , M10		18 0742
• 20 tubular cable lugs, 50 mm <sup>2</sup> , M12		18 0744
• Crimping tool, 6 - 50 mm <sup>2</sup> , hex crimp		10 1882
<b>Component box with tubular cable lugs</b>	<b>1</b>	<b>18 1545</b>

raaco



## Compression cable lug set

in a premium raaco component box with crimping pliers

Content:

370 pieces, sorted:	PU	Article no.
• 50 compression cable lugs 6 mm <sup>2</sup> , M5		18 3500
• 50 compression cable lugs 6 mm <sup>2</sup> , M6		18 3501
• 50 compression cable lugs 10 mm <sup>2</sup> , M5		18 3502
• 50 compression cable lugs 10 mm <sup>2</sup> , M6		18 3503
• 25 compression cable lugs 16 mm <sup>2</sup> , M8		18 3506
• 25 compression cable lugs 16 mm <sup>2</sup> , M10		18 3507
• 25 compression cable lugs 25 mm <sup>2</sup> , M8		18 3510
• 25 compression cable lugs 25 mm <sup>2</sup> , M10		18 3511
• 20 compression cable lugs 35 mm <sup>2</sup> , M8		18 3513
• 20 compression cable lugs 35 mm <sup>2</sup> , M10		18 3514
• 15 compression cable lugs 50 mm <sup>2</sup> , M10		18 3518
• 15 compression cable lugs 50 mm <sup>2</sup> , M12		18 3519
• Crimping tool, 6 - 50 mm <sup>2</sup> , hex crimp		10 1883
<b>Component box with compression cable lugs</b>	<b>1</b>	<b>18 1546</b>

cimco®



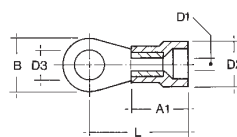
## Insulated cable connectors

### Solderless terminals, ring-type, Cu, insulated, DIN 46237 from 0.5 - 6 mm<sup>2</sup>



#### Specifications

- Material: ETP Cu according to DIN EN 13600
- Surface: galvanically tin-coated
- For connections with strain relief
- Insulated PA (polyamide, nylon), halogen-free
- Temperature resistance -60 °C to +105 °C
- Easy Entry allows the conductor to be inserted quickly and easily



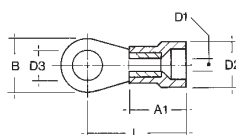
Cross sect. (mm <sup>2</sup> )	Bolt ø (mm)	Nominal size acc. to DIN	Insulation colour	D1	D2	D3	A1	B	L	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
0.1 - 0.4	2		yellow	1	3.2	2.3	10.5	5	14	0.02	100	18 0008
	3		yellow	1	3.2	3.2	10.5	5	16	0.03	100	18 0010
	4		yellow	1	3.2	4.3	10.5	6	17	0.04	100	18 0014
	5		yellow	1	3.2	5.3	10.5	8	18	0.05	100	18 0016
0.5 - 1	3	3 - 1	red	1.6	4.1	3.2	11.5	6	16	0.07	100	18 0020
	4	4 - 1	red	1.6	4.1	4.3	11.5	8	17	0.08	100	18 0024
	5	5 - 1	red	1.6	4.1	5.3	11.5	10	18	0.1	100	18 0026
	6		red	1.6	4.1	6.5	11.5	11	20	0.11	100	18 0028
	8		red	1.6	4.1	8.4	11.5	14	22	0.14	100	18 0027
1,5 - 2.5	10		red	1.6	4.1	10.5	11.5	18	24	0.19	100	18 0029
	3	3 - 2.5	blue	2.3	4.5	3.2	11.5	6	17	0.08	100	18 0030
	4	4 - 2.5	blue	2.3	4.5	4.3	11.5	8	18	0.09	100	18 0034
	5	5 - 2,5	blue	2,3	4.5	5.3	11.5	10	20	0.11	100	18 0036
	6	6 - 2,5	blue	2.3	4.5	6.5	11.5	11	22	0.12	100	18 0038
4 - 6	8	8 - 2,5	blue	2.3	4.5	8.4	11.5	14	23	0.15	100	18 0040
	10		blue	2.3	4.5	10.5	11.5	18	25	0,21	100	18 0042
	4	4 - 6	yellow	3.6	6.8	4.3	13	8	20	0.16	100	18 0050
	5	5 - 6	yellow	3.6	6.8	5.3	13	10	21	0.19	100	18 0052
	6	6 - 6	yellow	3.6	6.8	6.5	13	11	22	0.2	100	18 0054
10	8	8 - 6	yellow	3.6	6.8	8.4	13	14	25	0.24	100	18 0056
	10	10 - 6	yellow	3.6	6.8	10.5	13	18	27	0.3	100	18 0058
	5		red	4.5	8.6	5.3	16.5	10	24	0.29	100	18 0070
	6		red	4.5	8.6	6.5	16.5	11	25	0.3	100	18 0072
	8		red	4.5	8.6	8.4	16.5	14	28	0.34	50	18 0074
16	10		red	4.5	8.6	10.5	16.5	18	29	0.41	50	18 0076
	12		red	4.5	8.6	13	16.5	22	31	0.49	50	18 0078
	5		blue	5.8	9.6	5.3	21.5	11	30	0.494	50	18 0080
	6		blue	5.8	9.6	6.5	21.5	11	30	0.494	50	18 0082
	8		blue	5.8	9.6	8.4	21.5	14	32	0.592	50	18 0084
16	10		blue	5.8	9.6	10.5	21.5	18	34	0.572	50	18 0086
	12		blue	5.8	9.6	13	21.5	22	36	0.768	50	18 0088

## Solderless terminals, fork-type, Cu, insulated, DIN 46237 from 0.5 - 6 mm<sup>2</sup>



### Specifications

- Material: ETP Cu according to DIN EN 13600
- Surface: galvanically tin-coated
- For connections with strain relief
- Insulated PA (polyamide, nylon), halogen-free
- Temperature resistance -60 °C to +105 °C
- Easy Entry allows the conductor to be inserted quickly and easily

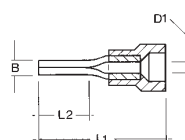


Cross sect. (mm <sup>2</sup> )	Bolt ø (mm)	Nominal size acc. to DIN	Insulation colour	D1	D2	D3	A1	B	L	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
0.1 - 0.4	3		yellow	1	3.2	3.3	10.5	5	16	0.04	100	18 0118
0.5 - 1	3	3 - 1	red	1.6	4.1	3.2	11.5	5.8	16	0.07	100	18 0120
	4	4 - 1	red	1.6	4.1	4.3	11.5	7	17	0.08	100	18 0124
	5	5 - 1	red	1.6	4.1	5.3	11.5	9.6	18	0.09	100	18 0126
1.5 - 2.5	6		red	1.6	4.1	6.5	11.5	11	20	0.1	100	18 0128
	3	3 - 2.5	blue	2.3	4.5	3.2	11.5	5.9	17	0.08	100	18 0140
	4	4 - 2.5	blue	2.3	4.5	4.3	11.5	7	19	0.09	100	18 0144
4 - 6	5	5 - 2.5	blue	2.3	4.5	5.3	11.5	10	20	0.11	100	18 0146
	6	6 - 2.5	blue	2.3	4.5	6.5	11.5	12	23	0.12	100	18 0148
	4	4 - 6	yellow	3.6	6.8	4.3	13	9	20	0.17	100	18 0160
10	5	5 - 6	yellow	3.6	6.8	5.3	13	9	21	0.19	100	18 0162
	6	6 - 6	yellow	3.6	6.8	6.5	13	12.5	22	0.2	100	18 0164
	8	8 - 6	yellow	3.6	6.8	8.4	13	15	25	0.24	100	18 0166
16	10	10 - 6	yellow	3.6	6.8	10.5	13	19.2	27	0.3	100	18 0168
	5		red	4.5	8.6	5.3	16.5	10.5	17	0.16	100	18 0170
	6		red	4.5	8.6	6.4	16.5	10.5	17	0.16	100	18 0172
16	6		blue	5.8	9.6	6.4	21.5	11	20	0.44	100	18 0174

## Solderless terminals, pin-type, Cu, insulated, DIN 46231 from 0.5 - 6 mm<sup>2</sup>

### Specifications

- Material: ETP Cu according to DIN EN 13600
- Surface: galvanically tin-coated, other surfaces available upon request
- For connections with strain relief
- Insulated PA (polyamide, nylon), halogen-free
- Temperature resistance -60 °C to +105 °C
- Easy Entry allows the conductor to be inserted quickly and easily



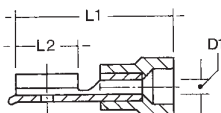
Cross sect. (mm <sup>2</sup> )	Bolt length (mm)	Nominal size	Insulation colour acc. to DIN	L1	L2	D1	B	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
0.1 - 0.4	9		yellow	20	9	1	1	0.05	100	18 0220
0.5 - 1	10	1	red	22	10	1.6	1.9	0.08	100	18 0222
1.5 - 2.5	10	2.5	blue	22	10	2.3	1.9	0.09	100	18 0224
4 - 6	11	6	yellow	27	11	3.6	2.7	0.19	100	18 0226
10	11		red	33	11	4.3	4.3	0.31	100	18 0227
16	15		blue	38	15	5.4	5.5	0.49	100	18 0228

## Blade receptacles, insulated, DIN 46245, part 1-3, and similar designs



### Specifications

- Material: CuZn (brass)
- Surface: galvanically tin-coated
- For connections with strain relief and Cu inner sleeve
- Insulated PA (polyamide, nylon), halogen-free
- Temperature resistance -60 °C to +105 °C
- Easy Entry allows the conductor to be inserted quickly and easily

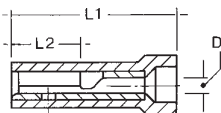


Cross sect. (mm <sup>2</sup> )	Plug dimension (mm)	Nominal size acc. to DIN	Insulation colour	L1	L2	D1	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
0.5 - 1	2.8 x 0.5		red	17.5	8	1.6	0.07	100	18 0250
	2.8 x 0.8		red	17.5	8	1.6	0.07	100	18 0252
	4.8 x 0.5		red	18	6	1.6	0.09	100	18 0254
	4.8 x 0.8	4.8 - 1	red	18	6	1.6	0.09	100	18 0256
1.5 - 2.5	6.3 x 0.8	6.3 - 1	red	22	7.5	1.6	0.11	100	18 0230
	2.8 x 0.5		blue	18	8	2.3	0,1	100	18 0236
	2.8 x 0.8		blue	18	8	2.3	0.08	100	18 0238
	4.8 x 0.5		blue	18	6	2.3	0.09	100	18 0258
4 - 6	4.8 x 0.8	4.8 - 2.5	blue	18	6	2.3	0.09	100	18 0260
	6.3 x 0.8	6.3 - 2.5	blue	21	7.4	2.3	0.11	100	18 0232
	6.3 x 0.8	6.3 - 6	yellow	21	7.5	3.6	0,17	100	18 0234
	9.5 x 1.2		yellow	26.5	12	3.6	0,26	100	18 0235

## Blade receptacles, fully insulated

### Specifications

- Material: CuZn (brass)
- Surface: galvanically tin-coated
- For connections with strain relief and Cu inner sleeve
- Insulation: fully insulated PA (polyamide, nylon), halogen-free
- Temperature resistance -60 °C to +105 °C
- Easy Entry allows the conductor to be inserted quickly and easily

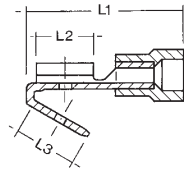


Cross sect. (mm <sup>2</sup> )	Plug dimension (mm)	Insulation colour	L1	L2	D1	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
0.5 - 1	2.8 x 0.5	red	20	8	1.6	0.08	100	18 0241
	2.8 x 0.8	red	20	8	1.6	0.1	100	18 0243
	4.8 x 0.5	red	18	6	1.6	0.09	100	18 0244
	4.8 x 0.8	red	18	6	1.6	0.09	100	18 0245
1.5 - 2.5	6.3 x 0.8	red	21	7.5	1.6	0.12	100	18 0240
	2.8 x 0.5	blue	20	8	2.3	0,1	100	18 0246
	2.8 x 0.8	blue	20	8	2.3	0.09	100	18 0247
	4.8 x 0.5	blue	18	6	2.3	0.1	100	18 0248
4 - 6	4.8 x 0.8	blue	18	6	2.3	0.1	100	18 0249
	6.3 x 0.8	blue	21	7.4	2.3	0.13	100	18 0242
	4.8 x 0.5	yellow	18	6	2.3	0.15	100	18 0270
	4.8 x 0.8	yellow	18	6	2.3	0.15	100	18 0272
	6.3 x 0.8	yellow	21	7.5	3.6	0.19	100	18 0274

## Blade receptacles with branch, insulated

### Specifications

- Material: CuZn (brass)
- Surface: galvanically tin-coated
- For connections with strain relief and Cu inner sleeve
- Insulated PA (polyamide, nylon), halogen-free
- Temperature resistance -60 °C to +105 °C
- Easy Entry allows the conductor to be inserted quickly and easily



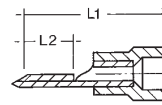
Cross sect. (mm <sup>2</sup> )	Plug dimension (mm)	Insulation colour	L1	L2	D1	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
0.5 - 1	6.3 x 0.8	red	22	7.5	8	0.15	100	18 0280
1.5 - 2.5	6.3 x 0.8	blue	22	7.5	8	0.15	100	18 0282
4 - 6	6.3 x 0.8	yellow	25	8	8	0.21	100	18 0284



## Tabs, insulated

### Specifications

- Material: CuZn (brass)
- Surface: galvanically tin-coated
- For connections with strain relief and Cu inner sleeve
- Insulated PA (polyamide, nylon), halogen-free
- Temperature resistance -60 °C to +105 °C
- Easy Entry allows the conductor to be inserted quickly and easily



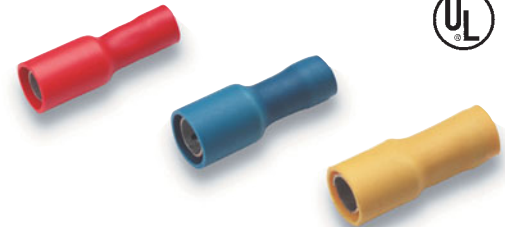
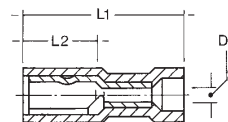
Cross sect. (mm <sup>2</sup> )	Plug dimension (mm)	Insulation colour	L1	L2	D1	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
0.5 - 1	2.8 x 0.8	red	14.6	5.5		0.09	100	18 0286
	4.8 x 0.8	red	18.5	6.5		0.08	100	18 0288
	6.3 x 0.8	red	22	7.5		0.1	100	18 0290
1.5 - 2.5	4.8 x 0.8	blue	18.5	6.5		0.09	100	18 0291
	6.3 x 0.8	blue	22	7.5		0.1	100	18 0292
4 - 6	6.3 x 0.8	yellow	22	7.5		0.16	100	18 0294



## Circular sockets, insulated

### Specifications

- Material: CuZn (brass)
- Surface: galvanically tin-coated
- For connections with strain relief and Cu inner sleeve
- Insulated PA (polyamide, nylon), halogen-free
- Temperature resistance -60 °C to +105 °C
- Easy Entry allows the conductor to be inserted quickly and easily



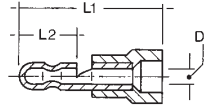
Cross sect. (mm <sup>2</sup> )	Plug dimension (mm)	Insulation colour	L1	L2	D1	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
0.5 - 1	4	red	24	13	1.6	0.12	100	18 0310
1.5 - 2.5	5	blue	24	13	2.3	0.15	100	18 0312
4 - 6	5	yellow	24	13	3.6	0.2	100	18 0314



## Pin terminals, insulated

### Specifications

- Material: CuZn (brass)
- Surface: galvanically tin-coated
- For connections with strain relief and Cu inner sleeve
- Insulated PA (polyamide, nylon), halogen-free
- Temperature resistance -60 °C to +105 °C
- Easy Entry allows the conductor to be inserted quickly and easily



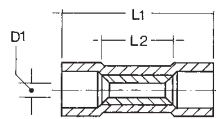
Cross sect. (mm <sup>2</sup> )	Plug dimension (mm)	Insulation colour	L1	L2	D1	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
0.5 - 1	4	red	23	13	1.6	0.12	100	18 0300
1.5 - 2.5	5	blue	23	13	2.3	0.15	100	18 0302
4 - 6	5	yellow	25	13	3.6	0.2	100	18 0304



## Parallel connectors, insulated

### Specifications

- Material: ETP Cu according to DIN EN 13600
- Surface: galvanically tin-coated
- For connections with strain relief
- Insulation PVC / PE
- Temperature resistance -40 °C to +70 °C



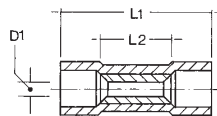
Cross sect. (mm <sup>2</sup> )	Insulation material	Insulation colour	L1	L2	D1	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
0.1 - 0.4	PE	yellow	13	5	1	0.06	100	18 0318
0.5 - 1	PVC	red	18	8	1.6	0.07	100	18 0320
1.5 - 2.5	PVC	blue	19	8	2.3	0.09	100	18 0322
4 - 6	PE	yellow	21	9	3.6	0.14	100	18 0324



## Butt connectors, insulated

### Specifications

- Material: ETP Cu according to DIN EN 13600
- Surface: galvanically tin-coated
- For connections with strain relief
- Insulated PA (polyamide, nylon), halogen-free
- Temperature resistance -60 °C to +105 °C
- Easy Entry allows the conductor to be inserted quickly and easily



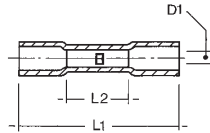
Cross sect. (mm <sup>2</sup> )	Insulation colour	L1	L2	D1	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
0.1 - 0.4	yellow	20	11	1	0.04	100	18 0328
0.5 - 1	red	25	15	1.6	0.13	100	18 0330
1.5 - 2.5	blue	25	15	2.3	0.14	100	18 0332
4 - 6	yellow	27	15	3.6	0.24	100	18 0334



## Butt connectors with shrink insulation

### Specifications

- Material: ETP Cu according to DIN EN 13600
- Surface: galvanically tin-coated
- For connections with strain relief
- Polyolefin insulation with inner layer of hot-melt adhesive
- Shrinking temperature: +150 °C
- Temperature resistance -10 °C to +105 °C
- After shrinking the hot-melt adhesive forms a connection that insulates, resists change, relieves strain and is water-tight.



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Cross sect. (mm <sup>2</sup> )	Insulation colour	L1	L2	D1	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
0.5 - 1	red	37	15	1.6	0.12	100	18 0340
1.5 - 2.5	blue	37	15	2.3	0.15	100	18 0342
4 - 6	yellow	42	15	3.6	0.25	50	18 0346

## Sets with insulated terminals

in a premium raaco component box with crimping pliers

Content:

	PU/pcs.	Article no.
135 pieces, sorted		
• 15 ring cable lugs DIN 46237, 0.5 - 1 mm <sup>2</sup> , M4		18 0024
• 15 ring cable lugs DIN 46237, 1.5 - 2.5 mm <sup>2</sup> , M4		18 0034
• 15 ring cable lugs DIN 46237, 1.5 - 2.5 mm <sup>2</sup> , M5		18 0036
• 15 ring cable lugs DIN 46237, 4 - 6 mm <sup>2</sup> , M5		18 0052
• 15 blade receptacles DIN 46245, 1.5 - 2.5 mm <sup>2</sup> , 6.3 x 0.8 mm		18 0232
• 15 blade receptacles DIN 46245, 4 - 6 mm <sup>2</sup> , 6.3 x 0.8 mm		18 0234
• 15 blade receptacles with branch, 1.5 - 2.5 mm <sup>2</sup> , 6.3 x 0.8 mm		18 0282
• 15 blade terminals, insulated, 1.5 - 2.5 mm <sup>2</sup> , 6.3 x 0.8 mm		18 0292
• 15 butt connectors, insulated, 1.5 - 2.5 mm <sup>2</sup>		18 0332
• Crimping tool, 0.5 - 6 mm <sup>2</sup> , oval crimp		10 1892

**Component box with insulated terminals** 1 18 1530

Content:

	PU/pcs.	Article no.
500 pieces, sorted		
• 50 ring cable lugs DIN 46237, 0.5 - 1 mm <sup>2</sup> , M4		18 0024
• 50 ring cable lugs DIN 46237, 0.5 - 1 mm <sup>2</sup> , M5		18 0026
• 25 ring cable lugs DIN 46237, 1.5 - 2.5 mm <sup>2</sup> , M5		18 0036
• 25 ring cable lugs DIN 46237, 4 - 6 mm <sup>2</sup> , M5		18 0052
• 25 fork-shaped cable lugs DIN 46237, 0.5 - 1 mm <sup>2</sup> , M4		18 0124
• 25 fork-shaped cable lugs DIN 46237, 1.5 - 2.5 mm <sup>2</sup> , M5		18 0146
• 25 pin-type cable lug DIN 46231, 0.5 - 1 mm <sup>2</sup> , 9 mm		18 0222
• 25 pin-type cable lug DIN 46231, 1.5 - 2.5 mm <sup>2</sup> , 10 mm		18 0224
• 25 blade receptacles DIN 46245, 0.5 - 1 mm <sup>2</sup> , 6.3 x 0.8 mm		18 0230
• 25 blade receptacles DIN 46245, 1.5 - 2.5 mm <sup>2</sup> , 6.3 x 0.8 mm		18 0232
• 20 blade receptacles with branch, 0.5 - 1 mm <sup>2</sup> , 6.3 x 0.8 mm		18 0280
• 20 blade receptacles with branch, 1.5 - 2.5 mm <sup>2</sup> , 6.3 x 0.8 mm		18 0282
• 20 blade terminals, insulated, 0.5 - 1 mm <sup>2</sup> , 6.3 x 0.8 mm		18 0290
• 20 blade terminals, insulated, 1.5 - 2.5 mm <sup>2</sup> , 6.3 x 0.8 mm		18 0292
• 10 pin terminals, insulated, 0.5 - 1 mm <sup>2</sup> , 4 mm		18 0300
• 10 pin terminals, insulated, 1.5 - 2.5 mm <sup>2</sup> , 5 mm		18 0302
• 10 circular sockets, 0.5 - 1 mm <sup>2</sup> , 4 mm		18 0310
• 10 circular sockets, 1.5 - 2.5 mm <sup>2</sup> , 5 mm		18 0312
• 25 butt connectors, 0.5 - 1 mm <sup>2</sup>		18 0330
• 20 butt connectors, 1.5 - 2.5 mm <sup>2</sup>		18 0332
• 10 butt connectors, 4 - 6 mm <sup>2</sup>		18 0334
• Crimping tool, 0.5 - 6 mm <sup>2</sup> , oval crimp		10 1892

**Component box with insulated cable lugs** 1 18 1540

raaco

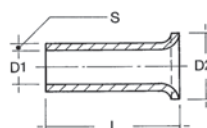


raaco



## Cable end Sleeves

### Non-insulated cable end sleeves according to DIN 46228, part 1 and special dimensions



#### Specifications

- Material: ETP Cu according to DIN EN 13600
- Surface: galvanically tin-coated

Cross sect. (mm <sup>2</sup> )	Length (mm)	L	D1	D2	S	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
0.25	5	5	0.8	1.7	0.15	0.01	1000	18 2040
	7	7	0.8	1.7	0.15	0.01	1000	18 2042
0.34	5	5	0.9	1.8	0.15	0.01	1000	18 2046
	7	7	0.9	1.8	0.15	0.01	1000	18 2048
0.5	6	6	1	2.1	0.15	0.01	1000	18 2050
	8	8	1	2.1	0.15	0.01	1000	18 2051
	10	10	1	2.1	0.15	0.01	1000	18 2049
0.75	6	6	1.2	2.3	0.15	0.01	1000	18 2052
	10	10	1.2	2.3	0.15	0.01	1000	18 2054
	15	15	1.2	2.3	0.15	0.01	1000	18 2055
1	6	6	1.4	2.5	0.15	0.01	1000	18 2056
	8	8	1.4	2.5	0.15	0.01	1000	18 2057
	10	10	1.4	2.5	0.15	0.01	1000	18 2058
	12	12	1.4	2.5	0.15	0.01	1000	18 2059
1.5	7	7	1.7	2.8	0.15	0.01	1000	18 2060
	10	10	1.7	2.8	0.15	0.01	1000	18 2062
	12	12	1.7	2.8	0.15	0.02	1000	18 2064
	15	15	1.7	2.8	0.15	0.02	1000	18 2066
	18	18	1.7	2.8	0.15	0.02	1000	18 2067
2.5	7	7	2.2	3.4	0.15	0.01	1000	18 2070
	10	10	2.2	3.4	0.15	0.01	1000	18 2071
	12	12	2.2	3.4	0.15	0.01	1000	18 2072
	15	15	2.2	3.4	0.15	0.02	1000	18 2074
	20	20	2.2	3.4	0.15	0.02	1000	18 2075
4	9	9	2.8	4	0.2	0.02	1000	18 2078
	12	12	2.8	4	0.2	0.02	1000	18 2080
	15	15	2.8	4	0.2	0.02	250	18 2082
	20	20	2.8	4	0.2	0.03	250	18 2083
6	10	10	3.5	4.7	0.2	0.02	250	18 2085
	12	12	3.5	4.7	0.2	0.03	250	18 2086
	15	15	3.5	4.7	0.2	0.03	100	18 2088
	20	20	3.5	4.7	0.2	0.05	250	18 2089
10	12	12	4.5	5.8	0.2	0.06	100	18 2092
	15	15	4.5	5.8	0.2	0.07	250	18 2094
	18	18	4.5	5.8	0.2	0.08	100	18 2096
	25	25	4.5	5.8	0.2	0.09	250	18 2097
16	12	12	5.8	7.5	0.2	0.05	250	18 2100
	15	15	5.8	7.5	0.2	0.05	250	18 2102
	18	18	5.8	7.5	0.2	0.07	100	18 2104
	25	25	5.8	7.5	0.2	0.09	250	18 2103
	32	32	5.8	7.5	0.2	0.01	250	18 2105
25	12	12	7.3	9.5	0.22	0.06	100	18 2106
	15	15	7.3	9.5	0.22	0.07	100	18 2108
	18	18	7.3	9.5	0.22	0.09	100	18 2110
	25	25	7.3	9.5	0.22	0.12	100	18 2112
	32	32	7.3	9.5	0.22	0.14	100	18 2111
35	15	15	8.3	11	0.22	0.1	100	18 2113
	18	18	8.3	11	0.22	0.11	100	18 2114
	25	25	8.3	11	0.22	0.16	100	18 2115
	32	32	8.3	11	0.22	0.24	100	18 2119
50	18	18	10.3	13	0.3	0.17	100	18 2120
	22	22	10.3	13	0.3	0.2	100	18 2116
	32	32	10.3	13	0.3	0.31	100	18 2121
70	22	22	12.5	15	0.4	0.22	100	18 2123
	26	26	12.5	15	0.4	0.35	100	18 2118
	30	30	12.5	15	0.4	0.4	100	18 2124
	32	32	12.5	15	0.4	0.43	100	18 2125
95	25	25	14.5	17	0.4	0.4	100	18 2127
	30	30	14.5	17	0.4	0.47	25	18 2122
	34	32	14.5	17	0.4	0.48	25	18 2128
120	32	32	16.5	19	0.5	0.75	25	18 2129
	34	34	16.5	19	0.5	0.97	25	18 2126
	40	40	16.5	19	0.5	1.11	25	18 2131
150	32	32	18.5	21	0.5	0.95	25	18 2132
	40	40	18.5	21	0.5	1.3	25	18 2133
185	32	32	20	23.5	0.6	1.26	25	18 2134
	40	40	20	23.5	0.6	1.54	25	18 2135

Silver-plated design upon request.

## Insulated cable end sleeves, in tapes

### Specifications

- Material: ETP Cu according to DIN EN 13600
- Surface: galvanically tin-coated
- Polypropylene insulation
- Temperature resistance -35 °C to +105 °C

### Colour row according to DIN 46228, part 4

Cross sect. (mm<sup>2</sup>)    Length (mm)    Insulation colour    PU/pcs.    Article no.

0.5	14	white	500	18 4500
0.75	14	grey	500	18 4502
1	14	red	500	18 4504
1.5	14	black	500	18 4506
2.5	14	blue	400	18 4508

### Colour row 1

Cross sect. (mm<sup>2</sup>)    Length (mm)    Insulation colour    PU/pcs.    Article no.

0.5	14	white	500	18 4460
0.75	14	blue	500	18 4462
1	14	red	500	18 4464
1.5	14	black	500	18 4466
2.5	14	grey	400	18 4468

### Colour row 2

Cross sect. (mm<sup>2</sup>)    Length (mm)    Insulation colour    PU/pcs.    Article no.

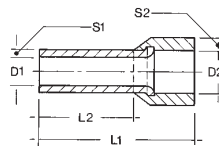
0.5	14	orange	500	18 4480
0.75	14	white	500	18 4482
1	14	yellow	500	18 4484
1.5	14	red	500	18 4486
2.5	14	blue	400	18 4488



## Insulated cable end sleeves according to DIN 46228, part 4 and special dimensions

### Specifications

- Material: ETP Cu according to DIN EN 13600
- Surface: galvanically tin-coated
- Polypropylene insulation
- Temperature resistance -35 °C to +105 °C
- For effortless attachment to finely stranded copper conductors, prevents damage and fanning out



Cross sect. (mm <sup>2</sup> )	Length w/o insulation L2	Total length L1	D1	S1	S2	D2	Insulation colour	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
0.5	6	12	1	0.15	0.25	2.6	white	0.01	100	18 2310
	8	14	1	0.15	0.25	2.6		0.01	100	18 2312
	10	16	1	0.15	0.25	2.6		0.01	100	18 2314
0.75	6	12	1.2	0.15	0.25	2.8	grey	0.01	100	18 2316
	8	14	1.2	0.15	0.25	2.8		0.01	100	18 2318
	10	16	1.2	0.15	0.25	2.8		0.01	100	18 2320
	12	18	1.2	0.15	0.25	2.8		0.01	100	18 2322
1	6	12	1.4	0.15	0.25	3	red	0.01	100	18 2324
	8	14	1.4	0.15	0.25	3		0.01	100	18 2326
	10	16	1.4	0.15	0.25	3		0.01	100	18 2328
	12	18	1.4	0.15	0.25	3		0.01	100	18 2330
1.5	8	14	1.7	0.15	0.25	3.5	black	0.01	100	18 2332
	10	16	1.7	0.15	0.25	3.5		0.01	100	18 2334
	12	18	1.7	0.15	0.25	3.5		0.02	100	18 2335
	18	24	1.7	0.15	0.25	3.5		0.02	100	18 2336



## Insulated cable end sleeves according to DIN 46228,

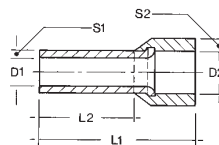
### part 4 and special dimensions See previous page for description

Cross sect. (mm <sup>2</sup> )	Length w/o insulation L2	Total length L1	D1	S1	S2	D2	Insulation colour	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
2.5	8	15	2.2	0.15	0.25	4.2	blue	0.02	100	18 2338
	12	18	2.2	0.15	0.25	4.2		0.03	100	18 2340
	18	25	2.2	0.15	0.25	4.2		0.03	100	18 2342
4	10	17	2.8	0.2	0.3	4.8	grey	0.03	100	18 2344
	12	20	2.8	0.2	0.3	4.8		0.03	100	18 2346
	18	26	2.8	0.2	0.3	4.8		0.03	100	18 2348
6	12	20	3.5	0.2	0.3	6.3	yellow	0.06	100	18 2350
	18	26	3.5	0.2	0.3	6.3		0.06	100	18 2352
10	12	22	4.5	0.2	0.4	7.6	red	0.06	100	18 2354
	18	28	4.5	0.2	0.4	7.6		0.08	100	18 2356
16	12	24	5.8	0.2	0.4	8.8	blue	0.08	100	18 2358
	18	28	5.8	0.2	0.4	8.8		0.08	100	18 2360
25	16	30	7.3	0.2	0.4	11.2	yellow	0.13	50	18 2362
	22	36	7.3	0.2	0.4	11.2		0.16	50	18 2364
35	16	30	8.3	0.2	0.4	12.7	red	0.21	50	18 2366
	25	39	8.3	0.2	0.4	12.7		0.22	50	18 2368
50	20	36	10.3	0.3	0.5	15	blue	0.3	50	18 2370
	25	40	10.3	0.3	0.5	15		0.35	50	18 2372
70	21	37	13.5	0.4	0.6	16	yellow	0.67	25	18 2374
95	25	44	14.7	0.4	0.6	18	red	0.67	25	18 2376
120	27	48	16.7	0.45	0.7	20	blue	0.93	25	18 2378
150	32	58	19	0.5	1	23	yellow	1.06	25	18 2380

## Insulated cable end sleeves, dimensions according to DIN 46228, part 4, colour row 1

### Specifications

- Material: ETP Cu according to DIN EN 13600
- Surface: galvanically tin-coated
- Polypropylene insulation
- Temperature resistance -35 °C to +105 °C
- For effortless attachment to finely stranded copper conductors, prevents damage and fanning out



Cross sect. (mm <sup>2</sup> )	Length w/o insulation L2	Total length L1	D1	S1	S2	D2	Insulation colour	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
0.25	6	10	0.8	0.15	0.25	1.8	violet	0.01	100	18 0988
	8	12	0.8	0.15	0.25	1.8		0.01	100	18 0990
0.34	6	10	0.9	0.15	0.25	2	pink	0.01	100	18 0992
	8	12	0.9	0.15	0.25	2		0.01	100	18 0994
0.5	6	12	1	0.15	0.25	2.6	white	0.01	100	18 0996
	8	14	1	0.15	0.25	2.6		0.01	100	18 0998
	8	14	1	0.15	0.25	2.6		0.01	500	18 4998
	10	16	1	0.15	0.25	2.6		0.01	100	18 0999
0.75	6	12	1.2	0.15	0.25	2.8	blue	0.01	100	18 0940
	8	14	1.2	0.15	0.25	2.8		0.01	100	18 1000
	8	14	1.2	0.15	0.25	2.8		0.01	500	18 5000
	10	16	1.2	0.15	0.25	2.8		0.01	100	18 1001
1	12	18	1.2	0.15	0.25	2.8		0.01	100	18 0942
	6	12	1.4	0.15	0.25	3	red	0.01	100	18 0944
	8	14	1.4	0.15	0.25	3		0.01	100	18 1002
	8	14	1.4	0.15	0.25	3		0.01	500	18 5002
1.5	10	16	1.4	0.15	0.25	3		0.01	100	18 1003
	12	18	1.4	0.15	0.25	3		0.02	100	18 0946
	8	14	1.7	0.15	0.25	3.5	black	0.01	100	18 1004
	8	14	1.7	0.15	0.25	3.5		0.01	500	18 5004
1.5	10	16	1.7	0.15	0.25	3.5		0.01	100	18 0948
	12	18	1.7	0.15	0.25	3.5		0.02	100	18 0949



## Insulated cable end sleeves, dimensions according to DIN 46228, part 4, colour row 1

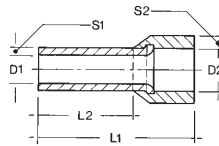
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									PU/pcs.	Article no.
	18	24	1.7	0.15	0.25	3.5			100	18 1005
	18	24	1.7	0.15	0.25	3.5			500	18 5005
2.5	8	15	2.2	0.15	0.25	4.2	grey	0.02	100	18 1006
	8	15	2.2	0.15	0.25	4.2		0.02	500	18 5006
	12	18	2.2	0.15	0.25	4.2		0.03	100	18 0950
	18	25	2.2	0.15	0.25	4.2		0.03	100	18 1007
	18	25	2.2	0.15	0.25	4.2		0.03	500	18 5007
4	10	17	2.8	0.2	0.3	4.8	orange	0.03	100	18 1008
	10	17	2.8	0.2	0.3	4.8		0.03	500	18 5008
	12	20	2.8	0.2	0.3	4.8		0.03	100	18 0952
	18	26	2.8	0.2	0.3	4.8		0.04	100	18 1009
	18	26	2.8	0.2	0.3	4.8		0.04	500	18 5009
6	12	20	3.5	0.2	0.3	6.3	green	0.06	100	18 1010
	12	20	3.5	0.2	0.3	6.3		0.06	500	18 5010
	18	26	3.5	0.2	0.3	6.3		0.06	100	18 1012
	18	26	3.5	0.2	0.3	6.3		0.06	500	18 5012
10	12	22	4.5	0.2	0.3	7.6	brown	0.06	100	18 1014
	12	22	4.5	0.2	0.3	7.6		0.06	500	18 5014
	18	28	4.5	0.2	0.3	7.6		0.08	100	18 1016
	18	28	4.5	0.2	0.3	7.6		0.08	500	18 5016
16	12	24	5.8	0.2	0.4	8.8	ivory	0.08	100	18 1018
	12	24	5.8	0.2	0.4	8.8		0.08	500	18 5018
	18	28	5.8	0.2	0.4	8.8		0.08	100	18 1020
	18	28	5.8	0.2	0.4	8.8		0.08	500	18 5020
25	16	30	7.3	0.2	0.4	11.2	black	0.13	50	18 1022
	22	36	7.3	0.2	0.4	11.2		0.16	50	18 1023

## Insulated cable end sleeves, dimensions according to DIN 46228, part 4, colour row 2

Specifications

- Material: ETP Cu according to DIN EN 13600
- Surface: galvanically tin-coated
- Polypropylene insulation
- Temperature resistance -35 °C to +105 °C
- For effortless attachment to finely stranded copper conductors, prevents damage and fanning out



Cross sect. (mm <sup>2</sup> )	Length w/o insulation L2	Total length L1	D1	S1	S2	D2	Insulation colour	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
0.25	6	10	0.8	0.15	0.25	1.8	light blue	0.01	100	18 2188
	8	12	0.8	0.15	0.25	1.8		0.01	100	18 2190
0.34	6	10	0.9	0.15	0.25	2	turquoise	0.01	100	18 2192
	8	12	0.9	0.15	0.25	2		0.01	100	18 2194
0.5	6	12	1	0.15	0.25	2.6	orange	0.01	100	18 2196
	8	14	1	0.15	0.25	2.6		0.01	100	18 2198
	10	16	1	0.15	0.25	2.6		0.01	100	18 2199
0.75	6	12	1.2	0.15	0.25	2.8	white	0.01	100	18 2140
	8	14	1.2	0.15	0.25	2.8		0.01	100	18 2200
	10	16	1.2	0.15	0.25	2.8		0.01	100	18 2201
	12	18	1.2	0.15	0.25	2.8		0.01	100	18 2242
1	6	12	1.4	0.15	0.25	3	yellow	0.01	100	18 2244
	8	14	1.4	0.15	0.25	3		0.01	100	18 2202
	10	16	1.4	0.15	0.25	3		0.01	100	18 2203
	12	18	1.4	0.15	0.25	3		0.02	100	18 2246
1.5	8	14	1.7	0.15	0.25	3.5	red	0.01	100	18 2204
	10	16	1.7	0.15	0.25	3.5		0.01	100	18 2248
	12	18	1.7	0.15	0.25	3.5		0.02	100	18 2249
	18	24	1.7	0.15	0.25	3.5		0.02	100	18 2205
2.5	8	14	2.2	0.15	0.25	4.2	blue	0.02	100	18 2206
	12	18	2.2	0.15	0.25	4.2		0.03	100	18 2250
	18	25	2.2	0.15	0.25	4.2		0.03	100	18 2207



## Insulated cable end sleeves, dimensions according to DIN 46228, part 4, colour row 2

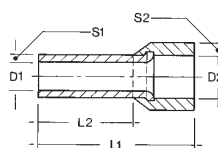
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									PU/pcs.	Article no.
4	10	17	2.8	0.2	0.3	4.8	grey	0.03	100	18 2208
	12	20	2.8	0.2	0.3	4.8		0.03	100	18 2252
	18	26	2.8	0.2	0.3	4.8		0.04	100	18 2209
6	12	20	3.5	0.2	0.3	6.3	black	0.06	100	18 2210
	18	26	3.5	0.2	0.3	6.3		0.06	100	18 2212
10	12	22	4.5	0.2	0.4	7.6	ivory	0.06	100	18 2214
	18	28	4.5	0.2	0.4	7.6		0.08	100	18 2216
16	12	24	5.8	0.2	0.4	8.8	green	0.08	100	18 2218
	18	28	5.8	0.2	0.4	8.8		0.08	100	18 2220
25	16	30	7.3	0.2	0.4	11.2	brown	0.13	50	18 2222
	22	36	7.3	0.2	0.4	11.2		0.16	50	18 2223
35	16	30	8.3	0.2	0.4	12.7	beige	0.21	50	18 2224
	25	39	8.3	0.2	0.4	12.7		0.22	50	18 2225
50	20	36	10.3	0.3	0.5	15	olive	0.35	50	18 2226
	25	40	10.3	0.3	0.5	15		0.35	50	18 2227

## Insulated twin cable end sleeves

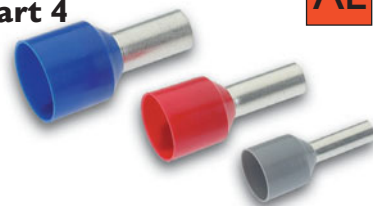
### Specifications

- Material: ETP Cu according to DIN EN 13600
- Surface: galvanically tin-coated
- Polypropylene insulation
- Temperature resistance -35 °C to +105 °C
- For effortless work with 2 finely stranded copper conductors, prevents damage and fanning out, colour row according to DIN 46228, part 4



Cross sect. (mm <sup>2</sup> )	Length w/o insulation L2	Total length L1	D1	S1	S2	D2	Insulation colour	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
2 x 0.5	8	15	1.5	0.15	0.25	2.5	white	0.03	100	18 2460
2 x 0.75	8	15	1.8	0.15	0.25	2.8	grey	0.03	100	18 2462
	10	17	1.8	0.15	0.25	2.8		0.03	100	18 2464
2 x 1	8	15	2	0.15	0.25	3.4	red	0.04	100	18 2466
	10	17	2	0.15	0.25	3.4		0.04	100	18 2468
2 x 1.5	8	16	2.3	0.15	0.25	3.6	black	0.02	100	18 2470
	12	20	2.3	0.15	0.25	3.6		0.03	100	18 2472
2 x 2.5	10	18.5	2.9	0.2	0.25	4.2	blue	0.07	100	18 2474
	13	21.5	2.9	0.2	0.25	4.2		0.08	100	18 2476
2 x 4	12	23	3.8	0.2	0.3	4.9	grey	0.11	100	18 2478
2 x 6	14	26	4.9	0.2	0.3	5.9	yellow	0.09	100	18 2480
2 x 10	14	26	6.5	0.2	0.4	7.2	red	0.13	100	18 2482
2 x 16	14	30	8.3	0.2	0.4	9.6	blue	0.13	100	18 2484
Colour row 1										
2 x 0.5	8	15	1.5	0.15	0.25	2.5	white	0.03	100	18 2400
2 x 0.75	8	15	1.8	0.15	0.25	2.8	blue	0.03	100	18 2402
	10	17	1.8	0.15	0.25	2.8		0.03	100	18 2404
2 x 1	8	15	2	0.15	0.25	3.4	red	0.04	100	18 2406
	10	17	2	0.15	0.25	3.4		0.04	100	18 2408
2 x 1.5	8	16	2.3	0.15	0.25	3.6	black	0.02	100	18 2410
	12	20	2.3	0.15	0.25	3.6		0.03	100	18 2412
2 x 2.5	10	18.5	2.9	0.2	0.25	4.2	grey	0.07	100	18 2414
	13	21.5	2.9	0.2	0.25	4.2		0.08	100	18 2416
2 x 4	12	23	3.8	0.2	0.3	4.9	orange	0.11	100	18 2418
2 x 6	14	26	4.9	0.2	0.3	5.9	green	0.09	100	18 2420
2 x 10	14	26	6.5	0.2	0.4	7.2	brown	0.13	50	18 2422
2 x 16	14	30	8.3	0.2	0.4	9.6	ivory	0.13	100	18 2424
Colour row 2										
2 x 0.5	8	15	1.5	0.15	0.25	2.5	orange	0.03	100	18 2430
2 x 0.75	8	15	1.8	0.15	0.25	2.8	white	0.03	100	18 2432
	10	17	1.8	0.15	0.25	2.8		0.03	100	18 2434
2 x 1	8	15	2	0.15	0.25	3.4	yellow	0.04	100	18 2436
	10	17	2	0.15	0.25	3.4		0.0	100	18 2438
2 x 1.5	8	16	2.3	0.15	0.25	3.6	red	0.02	100	18 2440
	12	20	2.3	0.15	0.25	3.6		0.03	100	18 2442
2 x 2.5	10	18.5	2.9	0.2	0.25	4.2	blue	0.07	100	18 2444
	13	21.5	2.9	0.2	0.25	4.2		0.08	100	18 2446
2 x 4	12	23	3.8	0.2	0.3	4.9	grey	0.11	100	18 2448
2 x 6	14	26	4.9	0.2	0.3	5.9	black	0.09	100	18 2450
2 x 10	14	26	6.5	0.2	0.4	7.2	ivory	0.13	100	18 2452
2 x 16	14	30	8.3	0.2	0.4	9.6	green	0.13	100	18 2454

## Insulated cable end sleeves for short-circuit-proof and short-to-ground-proof conductors (NSGAFÖU), colour row according to DIN 46228, part 4



### Specifications

- Material: ETP Cu according to DIN EN 13600
- Surface: galvanically tin-coated
- Polypropylene insulation
- Temperature resistance -35 °C to +110 °C
- With large plastic collar for accepting conductors with thick insulation

Cross sect. (mm <sup>2</sup> )	Length w/o insulation L2	Total length L1	D1	S1	S2	D2	Insulation colour	Weight per 100 pcs. ~kg	PU/pcs.	Article no.
1.5	8	17.5	1.8	0.15	0.25	7	black	0.02	100	18 2500
	10	19.5	1.8	0.15	0.25	7		0.03	100	18 2502
2.5	8	17.5	2.3	0.15	0.25	7.9	blue	0.03	100	18 2504
	12	21.5	2.3	0.15	0.25	7.9		0.04	100	18 2506
4	10	19.5	2.9	0.2	0.3	7.9	grey	0.04	100	18 2508
6	12	23	3.6	0.2	0.3	8.7	yellow	0.07	100	18 2510
10	12	24	4.6	0.2	0.3	10.2	red	0.08	100	18 2512
16	12	25.5	6	0.2	0.3	12.5	blue	0.11	100	18 2514

## Non-insulated cable end sleeves sets

in a practical dispenser, 3000 pieces, sorted

### Content:

- 1000 pcs. 0.50 mm<sup>2</sup> 6 mm in length
- 500 pcs. 0.75 mm<sup>2</sup> 6 mm in length
- 500 pcs. 1 mm<sup>2</sup> 6 mm in length
- 500 pcs. 1.50 mm<sup>2</sup> 7 mm in length
- 500 pcs. 2.50 mm<sup>2</sup> 7 mm in length

<b>Dispenser with non-insulated cable end sleeves</b>	1	18 1520
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in raaco PSC Vario 240 component box, with crimping pliers no. 10 1906, 3500 pieces, sorted

### Content:

- 1000 pcs. 0.75 mm<sup>2</sup> 6 mm in length
- 1000 pcs. 1 mm<sup>2</sup> 6 mm in length
- 750 pcs. 1.50 mm<sup>2</sup> 7 mm in length
- 750 pcs. 2.50 mm<sup>2</sup> 7 mm in length

<b>Component box with non-insulated cable end sleeves</b>	1	18 1510
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in raaco PSC Vario 340 component box, with universal crimping tool no. 10 1904, 4350 pieces, sorted

### Content:

- 1000 pcs. 1 mm<sup>2</sup> 6 mm in length
- 1000 pcs. 1.50 mm<sup>2</sup> 7 mm in length
- 1000 pcs. 2.50 mm<sup>2</sup> 7 mm in length
- 500 pcs. 4 mm<sup>2</sup> 9 mm in length
- 500 pcs. 6 mm<sup>2</sup> 12 mm in length
- 250 pcs. 10 mm<sup>2</sup> 18 mm in length
- 100 pcs. 16 mm<sup>2</sup> 18 mm in length

<b>Component box with non-insulated cable end sleeves</b>	1	18 1512
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## Insulated cable end sleeves sets

400 pieces, sorted, in a practical dispenser, stackable

### Content:

- 50 pcs. 0.5 mm<sup>2</sup> 8 mm in length
- 100 pcs. 0.75 mm<sup>2</sup> 8 mm in length
- 100 pcs. 1 mm<sup>2</sup> 8 mm in length
- 100 pcs. 1.5 mm<sup>2</sup> 8 mm in length
- 50 pcs. 2.5 mm<sup>2</sup> 8 mm in length

<b>Colour row 1</b>	1	18 1502
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<b>Colour row 2</b>	1	18 1503
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<b>Colour row DIN</b>	1	18 1504
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100 pieces, sorted, in a practical dispenser, stackable

### Content:

- 50 pcs. 4 mm<sup>2</sup> 10 mm in length
- 20 pcs. 6 mm<sup>2</sup> 12 mm in length
- 20 pcs. 10 mm<sup>2</sup> 12 mm in length
- 10 pcs. 16 mm<sup>2</sup> 12 mm in length

<b>Colour row 1</b>	1	18 1505
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<b>Colour row 2</b>	1	18 1506
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<b>Colour row DIN</b>	1	18 1507
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## Photovoltaic connector system

using this new photovoltaic connector saves time and effort at the construction site.

The CIMCO connector system is compatible with the MC4 market standard and fits all common solar cables from 2.5 mm<sup>2</sup> to 6 mm<sup>2</sup>.

Consisting of a plug and socket connection system, including plastic housing; package contains 100 plugs – crimp contacts and plastic housing in a plastic bag and 100 sockets – crimp contacts and plastic housing in a plastic bag.

Specifications:

2.5 to 6 mm<sup>2</sup>, voltage range: 1000 V, current capacity: 30 A (4 mm<sup>2</sup>, 6 mm<sup>2</sup>), contact resistance of the connector system: 5 mΩ, diameter of the plug contact: 4 mm, protection class: IP 67, temperature range: -40 °C / +85 °C, insulation material: PC/PA, contact material: copper, silver-plated, Safety class: II, certification: TÜV, crimping range: 2.5 - 6 mm<sup>2</sup>

100 18 0000



## Photovoltaic MC3 adapter system

adapter set for attaching to MC3 contacts, for crimping with MC4 compatible tools 1.5 to 4 mm<sup>2</sup>

Consisting of an MC3 plug and socket adapter system, including plastic housing; package contains 1 plug – crimp contacts and plastic housing and 1 socket – crimp contacts and plastic housing.

Specifications:

Pin dimensions: ø 3.0 mm, cable diameter: 5.0 to 8.0 mm, cable cross section: 1.5 – 4.0 mm<sup>2</sup>, AWG 16/14/12, contact type: stamp roll contact, nominal voltage: 1000 V DC, nominal current: 25 A at 70 °C / 20 A at 85 °C, contact resistance: < 5 m ohm, protection class: IP 67, temperature range: -40 °C / + 90 °C, certification: TÜV

1 18 0003



## Photovoltaic MC4 unlocking tool

unlocking tool for releasing the plug connection of photovoltaic connectors.

1 18 0004



## Photovoltaic MC4 Y-distributor

Y-distributor on an MC4 basis.

Specifications:

Pin dimensions: ø 4.0 mm, contact type: stamp roll contact, nominal voltage: 1000 V DC, nominal current: 30 A at 70 °C / 25 A at 85 °C, contact resistance: < 5 m ohm, protection class: IP 67, temperature range: -40 °C / + 90 °C, certification: TÜV

MMF = 1 x female input and 2 x male outputs 1 18 0005  
FFM = 1 x male input and 2 x female outputs 1 18 0006



## Earthing terminal SOLFIL

CIMCO's secure and permanent solution for earthing PV panels. The choice for simple and permanent protection. It is necessary to protect photovoltaic panels by earthing. It should be permanent and guarantee protection against the effects of lightning strikes and electromagnetic interferences over the entire service life. The connection series offers you solutions that suit the various types of photovoltaic panels. A secure earthing connection is provided by the establishment of an optimal electrical contact between the panel housing and the earthing conductor. The module frames are made of aluminium that is anodised or whose surface is otherwise treated. These surface treatments protect against rust but are not conductive. Thanks to the series, electrical contact with the aluminium of the panel becomes possible either by means of a cutting thread with the screwed models, or by means of a bolt connection with the help of serrated washers that scrape off the anodising when tightened. The connection is secured by tightening the earthing conductor with a maximum cross section of 10 mm<sup>2</sup>. With an insulated conductor you have to remove the insulation on 30 mm. The models are made of stainless steel which guarantees rust protection and galvanic compatibility with the aluminium.

## Attachment to an existing bore

with bolt for bore ø 6 mm (0.26"). The serrated washer ensures the electrical contact.

Cross section range of the earthing conductor in mm<sup>2</sup> [multi-stranded or solid]: 4, 6, 10, 4+4, 6+6

1 18 8012



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**NEW**

### Attachment to an existing bore

with self-tapping screw for bore  $\varnothing$  4 mm (0.16").

Cross section range of the earthing conductor in mm<sup>2</sup> [multi-stranded or solid]: 4, 6, 10, 4+4, 6+6

1 18 8014

**NEW**

### Attachment outside the bore

with self-drilling screw.

Cross section range of the earthing conductor in mm<sup>2</sup> [multi-stranded or solid]: 4, 6, 10, 4+4, 6+6

1 18 8016

**NEW**

### Attachment outside the bore

with self-drilling screw.

Cross section range of the earthing conductor in mm<sup>2</sup> [multi-stranded or solid]: 16, 16+4, 16+6, 25

1 18 8018

### Stainless steel (VA) tubular cable lugs

- Material: V2A
- Temperature-resistant to 400 °C
- Resistant to acid and rust
- Ring shaped

- Especially suitable for earthing and lightning protection of aluminium support and frame elements in the photovoltaic field.
- The stainless steel cable lug can be used to connect copper conductors to aluminium elements, since VA steel does not react corrosively or electrochemically with either of these materials.

When commercially available tubular copper cable lugs are used, the less precious metal (in this case Al) can be successively stripped away under the influence of moisture and voltage and thus destroy the frame profiles!

Nominal cross sect. mm	Conn.-bolt $\varnothing$	Weight per 100 pcs. ~kg	PU/pcs.	
4 - 6	M 8	0.28	100	18 8686
10	M 8	0.78	100	18 8704
10	M 10	0.77	100	18 8705
16	M 8	0.6	50	18 8712
16	M 10	0.6	50	18 8714

### Modular plugs

for telecommunication and data networks, quality plugs for at least 500 plug cycles, contacts with 50  $\mu$  inches (1.27 micrometres) gold-plated, housing made of flame-resistant polycarbonate, tensile-loaded capacity of cable to plug at least 89 N.

#### Unshielded modular plugs (min. cat. 3)

suitable for flat and round cables  
for flexible conductors

Designation	Number of positions	Number of contacts	PU/pcs.	
RJ 10	4	4	100	18 3000
RJ 11	6	4	100	18 3002
RJ 12	6	6	100	18 3004
RJ 45	8	8	50	18 3008

For solid conductors

Designation	Number of positions	Number of contacts	PU/pcs.	
RJ 45	8	8	50	18 3010

#### Shielded modular plugs (min cat. 5e)

suitable for round cable, includes a threading ridge for each plug for easily placing the conductor in the correct crimping position, for crimping with CIMCO crimping pliers no. 10 6201.

for flexible and solid conductors

Designation	Number of positions	Number of contacts	PU/pcs.	
RJ 458	8	8	50	18 3012

