

Product Information
02/2005

Flexible connectors • Solderless terminals • Contact systems

druseidt
Elektrotechnik

Flexible and highly flexible earthing tapes and braided connectors, in insulated or non insulated design.

Highly flexible earthing tapes and braided connectors

Our company manufacture a wide range of flexible and highly flexible earthing tapes and braided connectors. Our manufacturing machines for braids put us in a position to produce additionally to our standardized products individual constructed braids or cables in coordination with your required applications. Whether made out of braids or round stranded cables, whether insulated or non insulated, whether with coated or uncoated surfaces we are able to manufacture a large number of flexible connectors from 1 mm² up to 6000 mm² conductor cross-section.

A summary of our common connectors are contained in this product information. Additionally to the described standardized types we are able to manufacture also designs made out of stainless steel- or aluminium braids as well as out of cables with special insulation material (like silicone etc.). With pleasure we'll put a complete set of our catalogues at your disposal. More information about our company and our products are also contained in our internet homepage under www.druseidt.de

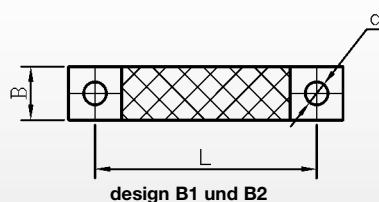
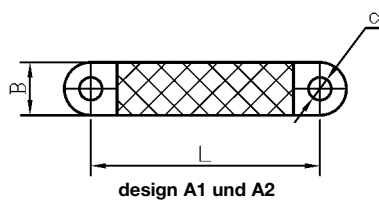
Earthing tapes similar to DIN 72333 Part 3 design A and B



Construction

Manufactured out of uncoated as well as out of tinned braid. When placing an order please specify:

- Part-No.
- length
- diameter of the holes
- braid uncoated or tinned



Deliverable designs

- design A1** contact areas tinned
- design A2** contact areas with brass-tapes and additionally tinned
- design B1** contact areas tinned
- design B2** contact areas with brass-tapes and additionally tinned

	Part-No.		technical data		
			cross-section mm ²	dimensions mm	
			B	d	L
design A1 and A2	15280/A1	15280/A2	4	8	
	15281/A1	15281/A2	6	10	
	15282/A1	15282/A2	8	12	
	15283/A1	15283/A2	10	14	
	15284/A1	15284/A2	14	18	
	15285/A1	15285/A2	16	20	
	15286/A1	15286/A2	21	22	
	15287/A1	15287/A2	25	22	acc. to customers wishes
	15288/A1	15288/A2	35	25	
	15289/A1	15289/A2	50	33	
	15290/A1	15290/A2	70	35	acc. to customers wishes
design B1 and B2	15280/B1	15280/B2	4	8	acc. to customers wishes
	15281/B1	15281/B2	6	10	
	15282/B1	15282/B2	8	12	
	15283/B1	15283/B2	10	14	acc. to customers wishes
	15284/B1	15284/B2	14	18	
	15285/B1	15285/B2	16	20	
	15286/B1	15286/B2	21	22	
	15287/B1	15287/B2	25	22	
	15288/B1	15288/B2	35	25	
	15289/B1	15289/B2	50	33	
	15290/B1	15290/B2	70	35	

Earthing tapes with solderless pressed contact areas



Construction and applications

Manufactured out of highly flexible braids with solderless pressed contact areas made out of seamless Cu-ETP-tubes. The crimping process is realized without using additives like tin or soldering and welding additives. We use exclusively materials of same analysis and same conductivity of 57 S (braids and tubes). Suitable as earthing tapes as well as components for current transfer. Everywhere applicable where components with high flexibility and an optimized contact resistance are needed.

Technical data

Braids

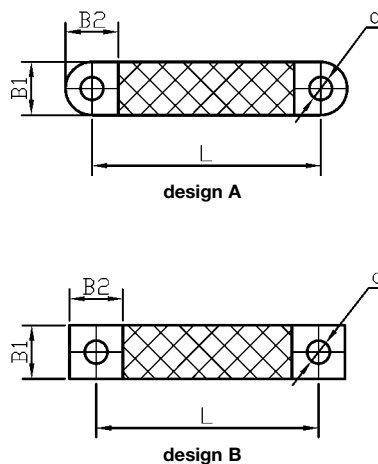
- made out of annealed Cu-ETP wires
- surface uncoated or tinned
- wire-Ø 0,07 mm (10 mm²)
- wire-Ø 0,16 mm (14 mm²)
- wire-Ø 0,10 mm (16-70 mm²)

contact areas

- seamless copper tube made out of Cu-ETP material
- surface uncoated or tinned

Remark:

Manufacturing in large as well as small quantities in length acc. to your wishes. On request also with changed drilling deliverable. When placing an order please specify the wished changes.



	Part-No.		technical data				
	uncoated	tinned	cross-section mm ²	dimensions mm			
				B ₁	B ₂	d L	
design A	13015	13015 vz	10	15	15	6,5	acc. to customers wishes
	13016	13016 vz	14	20	20	9	
	13017	13017 vz	16	20	20	9	
	13018	13018 vz	25	25	25	9	
	13019	13019 vz	35	30	30	9	
	13020	13020 vz	50	30	30	9	
13021	13021 vz	70	40	40	11		
design B	13025	13025 vz	10	15	15	6,5	
	13026	13026 vz	14	20	20	9	
	13027	13027 vz	16	20	20	9	
	13028	13028 vz	25	25	25	9	
	13029	13029 vz	35	30	30	9	
	13030	13030 vz	50	30	30	9	
13031	13031 vz	70	40	40	11		

Highly flexible connectors with solderless pressed terminals acc. to DIN 46234

Construction and applications

Manufactured out of highly flexible braided copper tapes made out of annealed, tinned Cu-ETP wires, with solderless pressed terminals acc. to DIN 46234 at the ends. Everywhere applicable where connections with smaller cross-sections made out of braided copper tapes are needed.

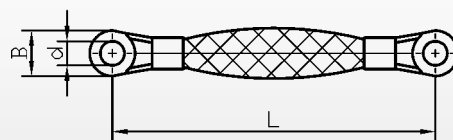
Technical data

braid:

- made out of annealed Cu-ETP wires
- surface tinned
- wire-Ø 0,07 mm (1,5-10 mm²)
- wire-Ø 0,10 mm (16 mm²)

contact areas

- with solderless pressed terminals acc. to DIN 46234



Remark:

Length and drilling are changeable. Connectors with bigger cross-sections on request. When placing an order please specify the wished changes.

Part-No.	Technical data		
	cross-section mm ²	dimensions mm	
		B	d L
13010	1,5	8	4,3 160
13011	4,0	10	5,3 160
13012	6,0	11	6,5 200
13013	10,0	11	6,5 200
13014	16,0	14	8,5 200

Flexible insulated earthing tapes and copper connectors 10-210 mm² with solderless pressed contact areas



Construction and applications

Manufactured by flexible PVC-extruded braided copper tapes with solderless pressed contact areas made out of seamless Cu-ETP-tubes. The crimping process is realized without using additives like tin or soldering and welding additives. We use exclusively materials of same analysis and same conductivity of 57 S (braids and tubes). So the hereby used druseidt-press technology guarantee a extreme compressing and a optimal contact resistance by compressing the wires so much, that no harmful gases or other environmental influences can go inside. By using our connectors you can be sure to have a very well and optimized contact resistance. Caused by the technical characteristics of the insulating material and the flexibility of the braids the connectors offer multifarious applications inside switchgears or control panel devices up to app. 730 A as well as earthing connections.

Technical data

Electrical conductor

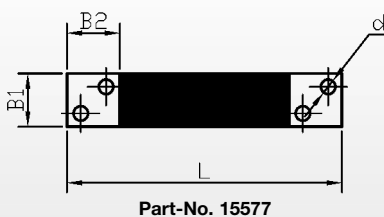
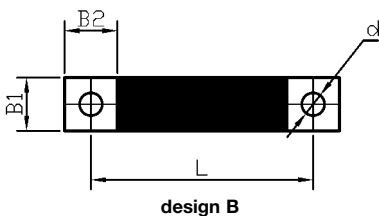
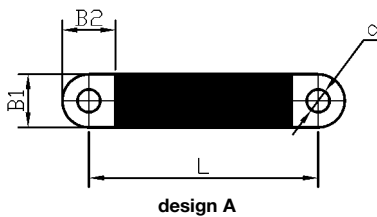
- braided copper tapes made out of Cu-ETP-wires
- annealed, uncoated wires
- wire-Ø 0,15 mm (10/16 mm²)
- wire-Ø 0,20 mm (25-210 mm²)

Contact areas

- seamless copper tube made out of Cu-ETP material
- surface uncoated or tinned

Insulation

- special vinyl compound
- black, free of lead
- self-extinguishing acc. to UL 94 VO
- elasticity 365%
- dielectric strength 20 kV/mm
- operating voltage max. 1 kV
- operating temperature -20° C up to +105° C



Part-No.		technical data						
design A	design B	cross-section mm ²	current-load	dimensions mm				
				B ₁	B ₂	ca. s	d	L
15415	15560	10	75-105 A	12	12	3,0	5,5	acc. to customers wishes
15416	15561	16	100-150 A	15	15	3,3	6,5	
15417	15562	25	145-210 A	20	20	3,8	9	
15418	15563	25	145-210 A	25	25	3,5	9	
15419	15564	35	170-250 A	20	20	4,3	9	
15420	15565	35	170-250 A	25	25	3,6	9	
15421	15566	50	205-300 A	25	25	4,7	9	
15422	15567	50	215-310 A	30	30	4,3	11	
15423	15568	70	245-355 A	25	25	6,0	9	
15424	15569	70	245-355 A	30	30	5,0	11	
15425	15570	70	270-390 A	35	35	5,4	11	
15426	15571	70	270-390 A	40	40	5,2	14	
15427	15572	100	325-470 A	35	35	6,1	11	
15428	15573	100	325-470 A	40	40	7,2	14	
15429	15574	120	375-540 A	40	40	8,0	14	
-	15575	140	405-580 A	40	40	8,6	14	
-	15576	210	505-730 A	40	40	9,8	14	
-	15577	210	505-730 A	50	50	8,0	14	

Remark:

Manufacturing acc. to the customers wishes in large as well as small quantities. Uncoated braid and uncoated contact areas are standard. But on request with tinned contact areas and bare braid or with changed drill holes deliverable. By ordering the design with tinned contact areas it is necessary to add the word tinned behind the part-No. (e.g. 15570 tinned). All information about current load are approximate values in consideration of the cables heat for single laying of air cooled cables and ambient temperature +35° C. Minimum value = conductor temperature app. +65° C. Maximum value conductor temperature app. +90° C. The temperature of the conductor is in dependent on the installation, the application, the cooling, the ambient temperature etc., so that if necessary reducing factors are to be considered. With pleasure our employees assist your company in finding optimal solutions.

Flexible connectors 10-300 mm² manufactured by highly flexible round stranded copper cables



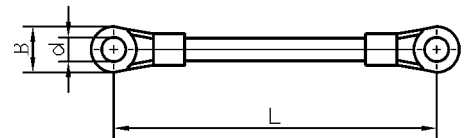
Construction

Manufactured by highly flexible uncoated or tinned copper cables with a wire-Ø of 0,07 mm (10-16 mm²) resp. 0,10 mm (25-300 mm²).

Design A: with terminals
acc. to DIN 46234

Design B: with tubular cable lugs

Manufacturing in large as well as small quantities in length acc. to your wishes. On request it is also possible to order an insulated design (e.g. with PVC-, silicone- or shrinking tubes). With changed drilling on request. When placing an order please specify the length and the wished changes.



	Part-No.		technical data			
	uncoated	tinned	cross-section mm ²	dimensions mm		
				B	d	L
design A	15240	15240 vz	10	11	6,5	acc. to customers wishes
	15241	15241 vz	16	14	8,5	
	15242	15242 vz	25	16	8,5	
	15243	15243 vz	35	16	8,5	
	15244	15244 vz	50	18	10,5	
	15245	15245 vz	70	22	10,5	
	15246	15246 vz	95	24	13	
	15247	15247 vz	120	24	13	
	15248	15248 vz	150	30	13	
	15249	15249 vz	185	36	17	
	15250	15250 vz	240	38	17	
15251	15251 vz	300	50	21		
design B	15260	15260 vz	10	11	6,5	acc. to customers wishes
	15261	15261 vz	16	15	8,5	
	15262	15262 vz	25	16	8,5	
	15263	15263 vz	35	19	8,5	
	15264	15264 vz	50	22	10,5	
	15265	15265 vz	70	25	10,5	
	15266	15266 vz	95	29	13	
	15267	15267 vz	120	31	13	
	15268	15268 vz	150	36	13	
	15269	15269 vz	185	38	17	
	15270	15270 vz	240	43	17	
15271	15271 vz	300	49	21		

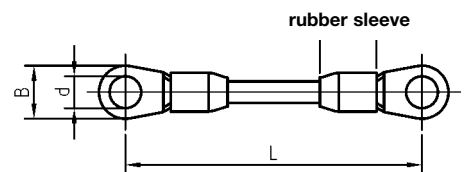
Highly flexible earthing ropes with green/yellow insulation colour



Construction

Manufactured by highly flexible uncoated round stranded copper cables with a wire-Ø of 0,07 mm (2,5-16 mm²) resp. 0,10 mm (25-50 mm²) with solderless pressed terminals acc. to DIN 46234 at the ends.

Manufacturing in large as well as small quantities in length acc. to your wishes. With changed drilling or other cross-sections on request. When placing an order please specify the length and the wished changes.



Part-No.	technical data			
	cross-section mm ²	dimensions mm		
		B	d	L
13000	2,5	10	5,3	acc. to customers wishes
13001	6	11	6,5	
13002	10	11	6,5	
13003	16	14	8,5	
13004	25	16	8,5	
13005	35	16	8,5	
13006	50	18	10,5	

Highly flexible copper connectors in solderless pressed design

Construction and applications

Druseidt-connectors are extremely flexible and are made out of highly flexible wires with a diameter of 0,07 or 0,10 mm. They are equipped with solderless pressed contact areas on both ends. The material of the contact areas is a seamless CU-ETP-tube. The hereby used druseidt-press technology guarantees extreme compressing and an optimal contact-resistance. As an opposite of the typical method by using terminal lugs this procedure makes a fully pressed braid-integrated contact-area. Through the very high pressure the space which contains air between the wires is so much compressed, that no harmful gases or other environmental influences can go inside.



Copper connectors non insulated



Copper connectors with standard PVC insulation



Copper connectors liquid resistance insulated

The crimping process is realized without using additives like tin or soldering and welding additives. We use exclusively materials of same analysis and same conductivity of 57 S (braids and tubes). Our connectors are used nearly in all kinds of applications for high current transfer. They have become particularly well established as connectors in switchgears and between transformers, generators, switching devices and prefabricated power networks, because they can compensate expansions caused by an increase of temperature as well as movements caused by a vibration of switchgears, transformers, generators etc.

Remarks:

Standard design

Bare E-Copper braid, highly flexible (wire-Ø 0,07/0,10 mm) with solderless pressed contact areas made out of uncoated, seamless copper tubes.

Drilling

Standard design without drilling. On request drilling acc. to druseidt-type I-III or customers wishes.

Length

Acc. to customers wishes

Special design

Made out of tinned braid or with coated contact areas (tin-, nickel-, silver- or gold-plated). Width of the contact areas up to 200 mm on request.

Insulation

On request also in insulated design deliverable. Standard material is a PVC-tube, other materials like silicone, glass fibre- or shrinking tubes etc. on request.

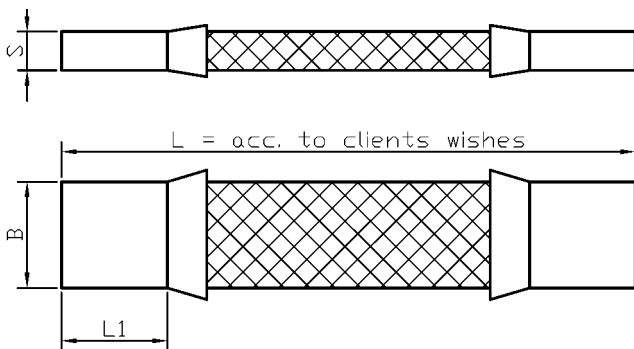
Liquid resistance

With protected insulation against liquids on request.

When placing an order please specify:

- druseidt-Part-No.
- total length
- if drilling is needed either druseidt design I-III or acc. to your drawing or sketches
- if insulation tubes are needed please add the word insulated behind the part-no. If you need another insulation material like PVC please specify this in your order.
- If you need an additional protection against splash water please add the remark with liquid resistance tube.

Highly flexible copper connectors In solderless pressed design 25-4500 mm²



Technical data

braids

- made out of annealed Cu-ETP wires
- uncoated surface is standard
- tinned surface on request
- wire-Ø 0,10 mm

contact areas

- seamless Cu-ETP-tube
- uncoated surface is standard
- tin-, nickel-, silver-coated surface on request

Insulation

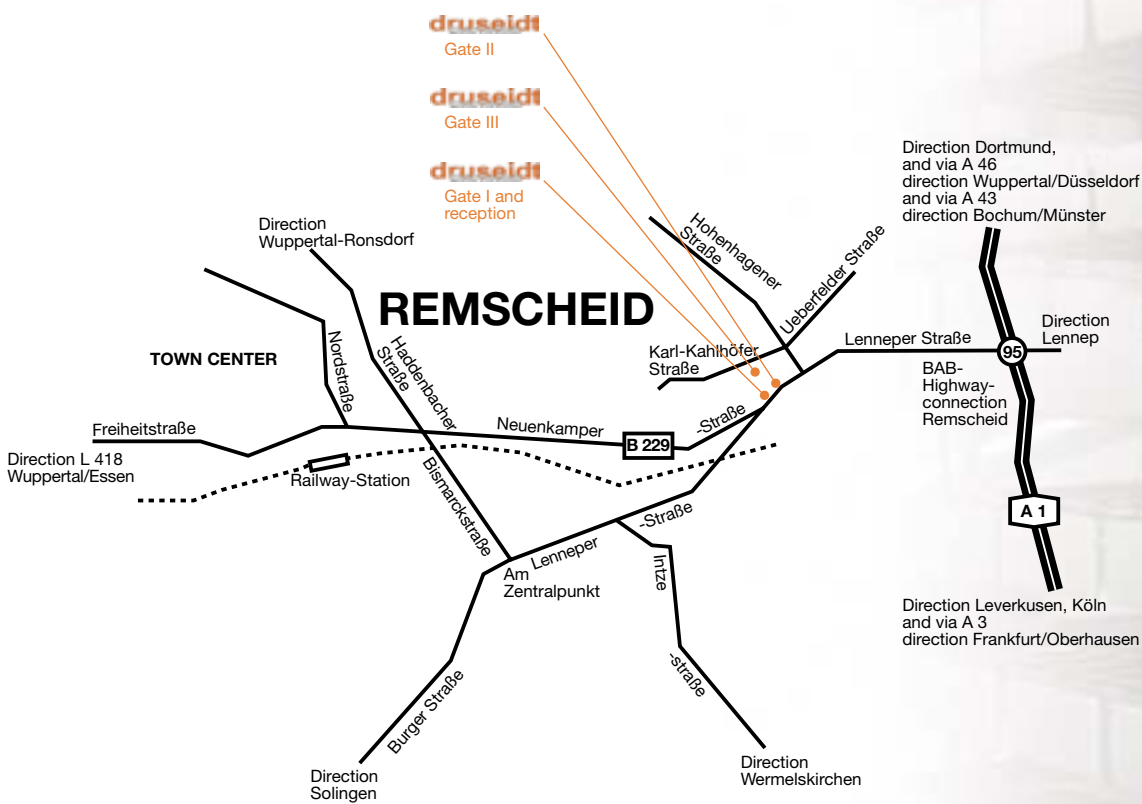
- PVC-tube (standard)
- Silicone-, glass-fibre-, shrinking tubes or others on request

Part-No.	cross-section					dimensions mm		current-load Ampere		technical data	standard drillings
	mm ²	B	L ₁	ca. s		DC	AC				
Type I											
02930	25	20	20	3,5		150	140				
02931	50			5		250	240				
02932	75			7		350	340				
02933	100			9		400	380				
02934	25	25	25	3,5		150	140				
02935	50			4,5		300	280				
02936	75			6		350	340				
02937	100			7		450	420				
02938	125			8,5		500	470				
02939	50	30	30	4		300	290				
02940	75			5		400	390				
02941	100			6		450	440				
02942	150			8,5		550	540				
02943	200			11,5		650	640				
02944	300			15,5		800	790				
02945	100	40	40	7,5		500	480				
02946	150			7,5		600	590				
02947	200			9,5		700	680				
02948	250			10,5		800	780				
02949	300			13		900	850				
02950	400			15,5		1000	980				
Type II											
02951	140	50	50	6		650	630				
02952	210			8,2		800	780				
02953	280			10		950	900				
02954	420			14		1050	1000				
02955	560			16,2		1350	1200				
02956	140	60	60	6,5		700	680				
02957	210			8		900	850				
02958	350			11,2		1150	1100				
02959	490			13,1		1350	1300				
02960	560			15		1400	1350				
Type III											
02961	340	80	80	9,5		1200	1100				
02962	520			11,5		1500	1400				
02963	700			14,5		1700	1600				
02964	840			16		1900	1800				
02965	1000			19,3		2100	1950				
02966	500	100	100	11		1600	1500				
02967	670			12,3		1850	1790				
02968	860			14,5		2100	2000				
02969	1000			17,5		2250	2150				
02970	1200			19		2450	2350				
02971	1500			23,5		2700	2550				
02972	610	120	120	11,7		1900	1750				
02973	1000			16		2650	2500				
02974	1540			21,2		3400	3200				
02975	2000			26,2		3950	3800				
02976	3000			36,2		4800	4550				
02977	4500			51		5400	5400				

Remark:

All information about current-load are approximate values for a non insulated design. The reducing factor for an insulated design depending on the application is between 15-20 %. Please notice that the temperature of the conductor

is dependent on the installation, the application, the cooling, the ambient temperature etc. So that if necessary reducing factors are to be considered. With pleasure our employees assist your company in finding optimal solutions.



Paul Druseidt
Elektrotechnische Spezialfabrik GmbH & Co. KG

Postfach 10 02 25
42802 Remscheid
Germany

Gate I: Neuenkamper Straße 105
Gate II: Lenneper Straße 131
Gate III: Karl-Kahlhöfer-Straße 9
42855 Remscheid
Germany

Telefon: +49 (21 91) 93 52-0
Telefax: +49 (21 91) 93 52-150
http: www.druseidt.de
E-Mail: info@druseidt.de

Please order also our detailed catalogues to the following subjects:

- 1 Solderless terminals and special tools for cutting, stripping and crimping
- 2 Flexible air and water cooled connectors and cables for Hi-Tech-applications
- 3 Main catalogue for contact systems and accessories for electroplating and anodizing equipments