

Connectors

M23 - hybrid connectors

Mechanical and electrical data

Mechanical data

Housing material:	Copper zinc alloy (CuZn), die-cast zinc (GD-Zn)
Housing surface:	Nickel-plated/thick layer passivated (can be coated)
Insulating body:	Polyamide (PA 66)
Contact material:	Copper zinc alloy (CuZn)
Contact surface:	Nickel-plated (Ni) with gold coating (Au)
Contact connection method:	Crimp version
Sealing and O-ring:	Fluorocarbon rubber (FKM)
Ambient temperature:	-40°C ... 130°C
Cable entry:	Cable and coupler connectors for an outer cable diameter of 7.5 - 18 mm, shielded
Type of locking:	M23 SPEEDCON screw locking
Mech. insertion/withdrawal cycles:	Default: 100
Protection class:	IP67 when locked

Electrical data

Number of positions		13 (4+4+4+PE), CAT5				13 (8+4+PE)							
Contacts		4	+	4	+	4	+	PE	8	+	4	+	PE
Contact Ø	[mm]	0.8		1.0		2.0		2.0	1.0		2.0		2.0
Litz wire cross sections													
Cable and coupler connectors:													
	Max. cable Ø of 18 mm	[mm ²]	0.08 ... 0.5	0.06 ... 1.0	0.25 ... 4.0	0.25 ... 4.0	0.06 ... 1.0	0.25 ... 4.0	0.25 ... 4.0				
Device connectors:		[mm ²]	0.08 ... 0.5	0.06 ... 1.0	0.25 ... 4.0	0.25 ... 4.0	0.06 ... 1.0	0.25 ... 4.0	0.25 ... 4.0				
Nominal current per contact at 25°C ¹⁾			3.6	8	30	-	8	30	-				
Specifications according to DIN EN 61984:2009													
Rated voltage	[V AC/DC]	50	50	630/850	-	50	630/850	-					
Test/surge voltage	[kV AC]	1.5	1.5	6	-	1.5	6	-					
Surge voltage category			III				III						
Pollution degree ²⁾			3				3						
Installation height		[m]	Up to 3000				Up to 3000						
Cable clamping area ³⁾		Max. Ø [mm]	18				18						

¹⁾ The effective current carrying capacity must be determined using a derating curve, if necessary, according to the application.

²⁾ The values specified assume that the connector pair is correctly locked and is only disconnected for testing and maintenance purposes. If the connector is unlocked and exposed to ambient conditions, and if there is a danger of pollution, the connector must be sealed using a protective cap ≥ IP54.

³⁾ The cable clamping areas specified on the following pages may vary depending on the cable material/structure. Selection and testing is the responsibility of the user.

Contact chamber numbering (view of plug-in side)				
Number of positions	Pin		Socket	
13-pos., CAT5 (4 + 4 + 4 + PE) Crimp				
13-pos. (8 + 4 + PE) Crimp				

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Selection guide

M23 hybrid connectors up to 30 A/630 V AC/850 V DC, crimp ranges up to 4 mm²

- Cable connectors
- Coupler connectors
- Device connectors (device flanges)

The connectors are supplied pre-assembled and are complemented by the respective crimp contacts.

The product chart provides an overview of the available components.

Connector type

Cable connectors

SPEEDCON fast locking system, see page 104.

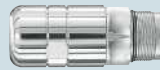
M23 x 1 standard interlocking, see page 105.



Shielded

Coupler connectors

See page 106.



Shielded

Device connectors

Straight, see page 107.



Angled, rotatable, flange dimensions: 26 mm x 26 mm, see page 108.



Angled, rotatable, flange dimensions: 28 mm x 28 mm, see page 108.



Shielded

Crimp contacts

Socket contacts

Turned, see page 109.



All housings can be fitted with pin or socket crimp contacts

Tools/accessories

Crimping pliers with digital display for turned crimp contacts, see page 159.



Pin contacts

Turned, see page 109.



Accessories

Color rings for individually marking the connectors, see page 164.

**Note:**

For reasons of safety, only socket contacts may be used in the live part of the connector.

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M23 cable connector, hybrid, SPEEDCON fast locking system

- 4 x power + PE, 4 x signal, 4 x data
- 4 x power + PE, 8 x signal

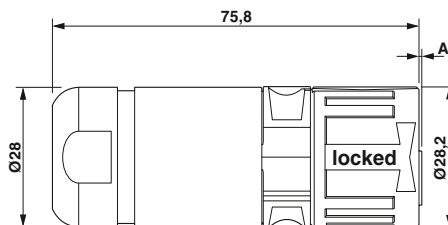


Cable connector, socket assembly



Cable connector, pin assembly

Description	Cable clamping area	Ordering data				Ordering data			
		Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
		4 x signal + CAT5		8 x signal		4 x signal + CAT5		8 x signal	
Cable connector , with contact carrier, without contacts, crimp connection									
Universal gasket	7.5 mm ... 18 mm	1621517	1	1621524	1	1621529	1	1621534	1
	7.5 mm ... 9 mm	1621520	1	1621525	1	1621530	1	1621535	1
	9 mm ... 12 mm	1621521	1	1621526	1	1621531	1	1621536	1
	12 mm ... 15 mm	1621522	1	1621527	1	1621532	1	1621537	1
	15 mm ... 18 mm	1621523	1	1621528	1	1621533	1	1621538	1
		Accessories				Accessories			
Crimp contacts		See page 109				See page 109			
Color rings, 50 pcs. in set (to be ordered separately)		See Catalog 2, page 367				See Catalog 2, page 367			



Pin version: dimension A = 0.2 mm, socket version: dimension A = 0 mm

M23 cable connector, hybrid, standard interlocking

- 4 x power + PE, 4 x signal, 4 x data
- 4 x power + PE, 8 x signal

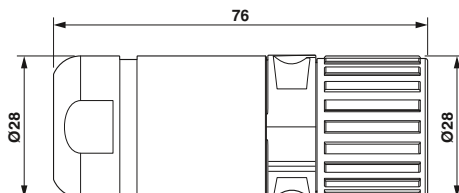


Cable connector, socket assembly



Cable connector, pin assembly

		Ordering data				Ordering data			
Description	Cable clamping area	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
		4 x signal + CAT5		8 x signal		4 x signal + CAT5		8 x signal	
Cable connector, with contact carrier, without contacts, crimp connection									
Universal gasket	7.5 mm ... 18 mm	1621997	1	1622002	1	1622007	1	1622012	1
	7.5 mm ... 9 mm	1621998	1	1622003	1	1622008	1	1622013	1
	9 mm ... 12 mm	1621999	1	1622004	1	1622009	1	1622014	1
	12 mm ... 15 mm	1622000	1	1622005	1	1622010	1	1622015	1
	15 mm ... 18 mm	1622001	1	1622006	1	1622011	1	1622016	1
		Accessories				Accessories			
Crimp contacts		See page 109				See page 109			
Color rings, 50 pcs. in set (to be ordered separately)		See Catalog 2, page 367				See Catalog 2, page 367			



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M23 coupler connector, hybrid

- 4 x power + PE, 4 x signal, 4 x data
- 4 x power + PE, 8 x signal

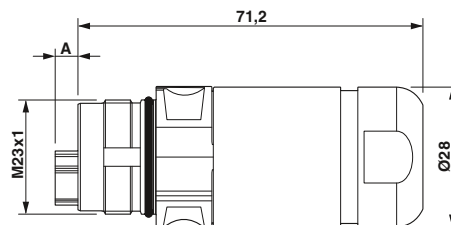


Coupler connector,
socket assembly



Coupler connector,
pin assembly

Description		Ordering data		Ordering data		Ordering data		Ordering data	
		Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
Cable clamping area		4 x signal + CAT5		8 x signal		4 x signal + CAT5		8 x signal	
Coupler connector, with contact carrier, without contacts, crimp connection									
Universal gasket									
	7.5 mm ... 18 mm	1621539	1	1621544	1	1621549	1	1621554	1
	7.5 mm ... 9 mm	1621540	1	1621545	1	1621550	1	1621555	1
	9 mm ... 12 mm	1621541	1	1621546	1	1621551	1	1621556	1
	12 mm ... 15 mm	1621542	1	1621547	1	1621552	1	1621557	1
	15 mm ... 18 mm	1621543	1	1621548	1	1621553	1	1621558	1
		Accessories				Accessories			
Crimp contacts		See page 109				See page 109			
Color rings, 50 pcs. in set (to be ordered separately)		See Catalog 2, page 367				See Catalog 2, page 367			



Pin version: dimension A = 4.7 mm, socket version:
dimension A = 0 mm

M23 device connector, hybrid, straight

- 4 x power + PE, 4 x signal, 4 x data
- 4 x power + PE, 8 x signal

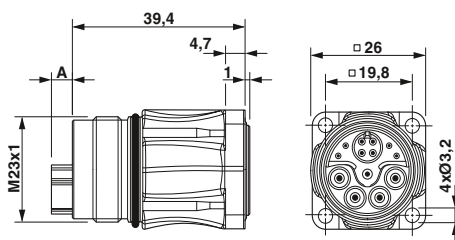


Device connector, straight, socket assembly

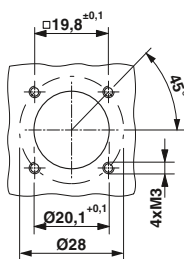


Device connector, straight, pin assembly

Description	Ordering data				Ordering data			
	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
Device connector, with contact carrier, without contacts	4 x signal + CAT5		8 x signal		4 x signal + CAT5		8 x signal	
Flange dimensions: 26 mm x 26 mm	1621567	1	1621568	1	1621569	1	1621570	1
Accessories								
Crimp contacts	See page 109				See page 109			
Color rings, 50 pcs. in set (to be ordered separately)	See Catalog 2, page 367				See Catalog 2, page 367			



Pin version: dimension A = 4.75 mm, socket version: dimension A = 0 mm



Installation dimensions

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M23 device connector, hybrid, angled, rotatable

- 4 x power + PE, 4 x signal, 4 x data
- 4 x power + PE, 8 x signal
- Housing can be freely rotated by 310°

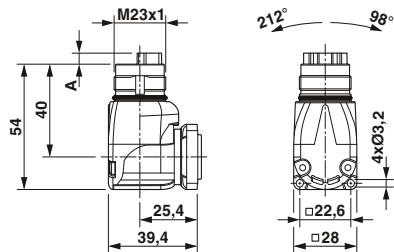


Device connector, angled, rotatable, socket assembly

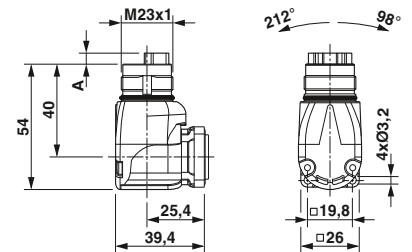


Device connector, angled, rotatable, pin assembly

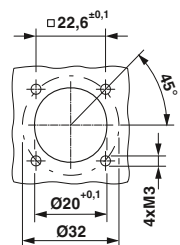
Description	Ordering data				Ordering data			
	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
Device connector , with contact carrier, without contacts	4 x signal + CAT5		8 x signal		4 x signal + CAT5		8 x signal	
Flange dimensions: 26 mm x 26 mm	1621563	1	1621564	1	1621565	1	1621566	1
Device connector , with contact carrier, without contacts	4 x signal + CAT5		8 x signal		4 x signal + CAT5		8 x signal	
Flange dimensions: 28 mm x 28 mm	1621559	1	1621560	1	1621561	1	1621562	1
	Accessories				Accessories			
Crimp contacts	See page 109				See page 109			
Color rings , 50 pcs. in set (to be ordered separately)	See Catalog 2, page 367				See Catalog 2, page 367			



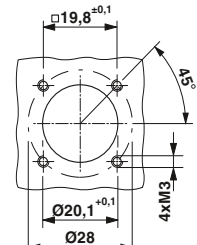
Pin version: dimension A = 4.7 mm, socket version: dimension A = 0 mm



Pin version: dimension A = 4.7 mm, socket version: dimension A = 0 mm



Installation dimensions



Installation dimensions

Crimp contacts



Crimp contacts, socket



Crimp contacts, pin

Description	Connection cross section [mm ²]	Ordering data			Ordering data		
		Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.
Contacts, Ø 0.8 mm	0.08 mm ² ... 0.25 mm ²	SF-08KS010	1621571	100	SF-08KP010	1621574	100
	0.34 mm ² ... 0.5 mm ²	SF-08KS020	1621573	100	SF-08KP020	1621575	100
Contacts, Ø 1.0 mm	0.06 mm ² ... 0.25 mm ²	ST-10KS010	1618239	100	ST-10KP010	1618255	100
	0.34 mm ² ... 0.5 mm ²	ST-10KS020	1618251	100	ST-10KP020	1618256	100
	0.5 mm ² ... 1.0 mm ²	ST-10KS030	1618254	100	ST-10KP030	1618261	100
Contacts, Ø 2.0 mm	0.25 mm ² ... 1.0 mm ²	SF-20KS021	1621576	50	SF-20KP021	1621579	50
	1.0 mm ² ... 2.5 mm ²	SF-20KS022	1621577	50	SF-20KP022	1621580	50
	2.5 mm ² ... 4.0 mm ²	SF-20KS023	1621578	50	SF-20KP023	1621581	50