

M17 to M58 circular plug-in connectors

PLUSCON circular is the complete range of electrical circular plug-in connectors designed for use in industrial automation. The wide range of available versions covers sizes M17 to M23, M40, and M58 locking threads.

The product portfolio covers all common applications in industrial environments for signal and power plug-in connectors up to 630 V/150 A. This also includes requirements relating to tightness, vibration resistance, and EMC shielding. These solid metal plugs are particularly suitable for harsh ambient conditions. The circular plug-in connector range is rounded off with a complete portfolio of plastic molded cable plug-in connectors.

Among the numerous applications, the area of electrical drives is worth highlighting. Here, the entire range covers all the power ranges and designs required for wiring from the drive to the control cabinet.

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M17 to M58 circular plug-in connectors

M17 - signal plug-in connectors

Mechanical and electrical data

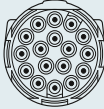
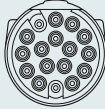
Mechanical data	
Housing material:	Copper zinc alloy (CuZn), die-cast zinc (GD-Zn)
Housing surface:	Nickel-plated/thick layer passivated (can be coated)
Insulating body:	Polyamide (PA 66)
Contact material:	Copper zinc alloy (CuZn)
Contact surface:	Nickel-plated (Ni) with gold coating (Au)
Contact connection method:	Crimp version
Sealing and O-ring:	Fluorocarbon rubber (FKM)
Ambient temperature:	-40°C ... 125°C
Cable entry:	Cable and coupler plug-in connectors for cable outside diameter of 3.5 - 11 mm, shielded (M17 Compact) 5 - 12.5 mm, shielded (M17)
Type of locking:	M17 SPEEDCON rapid interlock system, cable plug-in connector Optionally with M17 x 1 coarse-pitch thread
Mechanical insertion/withdrawal cycles:	Standard: 100, punched-rolled C-HC crimp contacts: up to 500
Protection class:	IP67 in the locked state

Electrical data		
Number of positions	8	17
Contacts	8	17
Contact Ø [mm]	1	0.6
Litz wire cross section, crimp contacts [mm²]	0.06 ... 1.0	0.06 ... 0.5
Turned		
Litz wire cross section, C-HC crimp contacts [mm²]	0.06 ... 0.56	–
Punched-rolled		
Nominal current per contact at 25°C ¹⁾	3.6	3.6
Specifications according to DIN EN 61984:2009		
Rated voltage [V AC/DC]	60	60
Test/surge voltage [kV AC]	1.5	1.5
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]	12.5	12.5

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

²⁾ The values specified assume that the plug-in connector pair is correctly locked and is only disconnected for testing and maintenance purposes. If the plug-in connector is unlocked and exposed to ambient conditions, and if there is a danger of contamination, the plug-in 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
8-pos. Crimp		
17-pos. Crimp		

Note:
The plug-in connectors can be equipped with pin or socket contacts according to the application.

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

M17 to M58 circular plug-in connectors

M17 - signal plug-in connectors

Selection guide

M17 signal plug-in connectors, 8 and 17-pos., crimp ranges: 0.06 mm² to 1.0 mm²

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

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

Plug-in connectors with knurled nuts can be optionally equipped with SPEEDCON rapid interlock system or with M17 x 1 coarse-pitch thread. The plug-in connectors with external thread are fully compatible with standard threads and the SPEEDCON rapid interlock system.

The product chart provides an overview of the available components.

Plug-in connector type

Cable plug-in connector

SPEEDCON rapid interlock system, M17 Compact, see page 308.



M17, see page 312.



M17 x 1 standard interlocking, M17, see page 313.



Square mounting flange for M17 cable and coupler plug-in connectors for wall mounting, see page 410.



Shielded

Coupler plug-in connector/panel feed-through

Coupler plug-in connector M17 Compact, see page 309.



Panel feed-through M17 Compact, see page 310.



M17, see page 314.



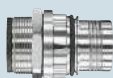
Shielded

Device plug-in connector

Straight, M17 Compact, see page 311.



Straight, with central fastening thread, front mounting, M17, see page 317.



Angled, rotatable, M17, see page 316.



Straight, M17, see page 315.



Straight, with central fastening thread, rear mounting, M17, see page 317.



Shielded

Crimp contacts

Socket contacts

Turned, see page 319.



Punched-rolled, taped, see page 318.



Pin contacts

Turned, see page 319.



Punched-rolled, taped, see page 318.



Note:

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

Tools/accessories

Crimping tools

Crimping pliers for punched-rolled C-HC crimp contacts, see page 406.



Crimping pliers with digital display for turned crimp contacts, see page 407.



Tools/accessories

Contact removal tool for device plug-in connectors with contact carriers for snapping in from the device side, see page 410.



Color rings for individually marking the plug-in connectors, see page 412.



All housing can be fitted with pin or socket crimp contacts

M17 to M58 circular plug-in connectors

M17 - signal plug-in connectors

M17 Compact cable plug-in connector

- High packing density in a compact product
- Individual marking of plug-in connectors with color rings



Cable plug-in connector, socket assembly



Cable plug-in 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.
		8-pos.		17-pos.		8-pos.		17-pos.	
Cable plug-in connector, with contact carrier, without contacts	3.5 mm ... 5.5 mm	1613370	1	1613288	1	1618641	1	1618682	1
	5 mm ... 9 mm	1613371	1	1613324	1	1618648	1	1618683	1
	9 mm ... 11 mm	1613372	1	1613325	1	1618649	1	1618684	1
		Accessories				Accessories			
Crimp contacts		For socket contacts, see page 318 onwards				For pin contacts, see page 318 onwards			
Color rings, 50 pcs. in set (to be ordered separately)		See page 412				See page 412			



M17 Compact coupler plug-in connector

- Compatible with mating plugs with SPEEDCON or M17 standard knurled nuts
- Individual marking of plug-in connectors with color rings



Coupler plug-in connector, socket assembly



Coupler plug-in 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.
		8-pos.		17-pos.		8-pos.		17-pos.	
Coupler plug-in connector, with contact carrier, without contacts	3.5 mm ... 5.5 mm	1618724	1	1618756	1	1617799	1	1613497	1
	5 mm ... 9 mm	1618725	1	1618757	1	1617813	1	1613896	1
	9 mm ... 11 mm	1618726	1	1618758	1	1617830	1	1614532	1
		Accessories				Accessories			
Crimp contacts		For socket contacts, see page 318 onwards				For pin contacts, see page 318 onwards			
Color rings, 50 pcs. in set (to be ordered separately)		See page 412				See page 412			



M17 to M58 circular plug-in connectors

M17 - signal plug-in connectors

M17 Compact panel feed-through

- Panel feed-throughs suitable for front and rear mounting
- Compatible with mating plugs with SPEEDCON or M17 standard knurled nuts
- Individual marking of plug-in connectors with color rings
- **Flange dimensions**
25.7 mm x 25.7 mm

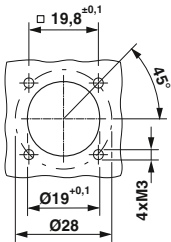
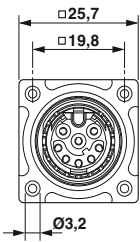
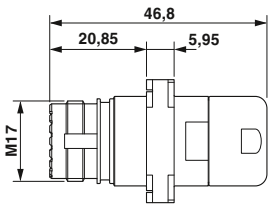


Panel feed-through, socket assembly



Panel feed-through, 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.
		8-pos.		17-pos.		8-pos.		17-pos.	
Panel feed-through, with contact carrier, without contacts	3.5 mm ... 5.5 mm	1618801	1	1618834	1	1617925	1	1617863	1
	5 mm ... 9 mm	1618802	1	1618835	1	1617929	1	1617872	1
	9 mm ... 11 mm	1618805	1	1618836	1	1617932	1	1617873	1
		Accessories				Accessories			
Crimp contacts		For socket contacts, see page 318 onwards				For pin contacts, see page 318 onwards			
Color rings, 50 pcs. in set (to be ordered separately)		See page 412				See page 412			



Installation dimensions

M17 Compact device plug-in connectors, front mounting

- Compatible with mating plugs with SPEEDCON or M17 standard knurled nuts
- Individual marking of plug-in connectors with color rings
- **Flange dimensions**
21.6 mm x 21.6 mm

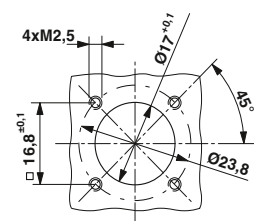
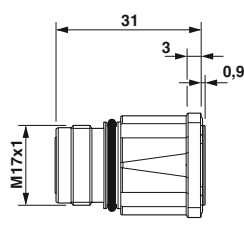


Device plug-in connector, straight, socket assembly



Device plug-in 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 plug-in connector, with contact carrier, without contacts, contact insert can be snapped in	8-pos.		17-pos.		8-pos.		17-pos.	
	1619039	1	1607654	1	1613286	1	1607636	1
Device plug-in connector, with contact carrier, without contacts, contact insert for support on the device	8-pos.		17-pos.		8-pos.		17-pos.	
	1619038	1	1607653	1	1619037	1	1607634	1
Accessories	Accessories				Accessories			
	For socket contacts, see page 318 onwards See page 412				For pin contacts, see page 318 onwards See page 412			



Installation dimensions

M17 to M58 circular plug-in connectors

M17 - signal plug-in connectors

Cable plug-in connector,
SPEEDCON rapid interlock system

- Individual marking of plug-in connectors with color rings

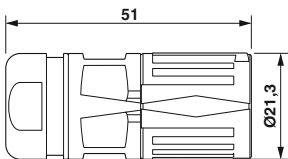


Cable plug-in connector,
socket assembly



Cable plug-in 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.
		8-pos.		17-pos.		8-pos.		17-pos.	
Cable plug-in connector, with contact carrier, without contacts	5 mm ... 8 mm	1619007	1	1607642	1	1618999	1	1607625	1
	8 mm ... 10 mm	1619008	1	1607644	1	1619000	1	1607627	1
	10 mm ... 12.5 mm	1619009	1	1624532	1	1619001	1	1624529	1
		Accessories				Accessories			
Crimp contacts		For socket contacts, see page 318 onwards				For pin contacts, see page 318 onwards			
Color rings, 50 pcs. in set (to be ordered separately)		See page 412				See page 412			



**Cable plug-in connector,
M17 standard interlocking**

- Standard knurled nuts compatible with mating plugs with SPEEDCON or M17 standard external thread
- Individual marking of plug-in connectors with color rings

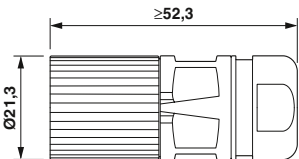


Cable plug-in connector,
socket assembly



Cable plug-in 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.
		8-pos.		17-pos.		8-pos.		17-pos.	
Cable plug-in connector, with contact carrier, without contacts	5 mm ... 8 mm	1619003	1	1607641	1	1618995	1	1607624	1
	8 mm ... 10 mm	1619004	1	1607643	1	1618996	1	1607626	1
	10 mm ... 12.5 mm	1619005	1	1624531	1	1618997	1	1624528	1
		Accessories				Accessories			
Crimp contacts		For socket contacts, see page 318 onwards				For pin contacts, see page 318 onwards			
Color rings, 50 pcs. in set (to be ordered separately)		See page 412				See page 412			



M17 to M58 circular plug-in connectors

M17 - signal plug-in connectors

Coupler plug-in connector

- Compatible with mating plugs with SPEEDCON or M17 standard knurled nuts
- Individual marking of plug-in connectors with color rings

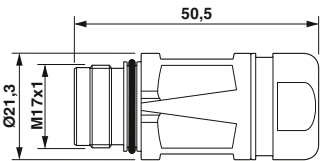


Coupler plug-in connector, socket assembly



Coupler plug-in 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.
		8-pos.		17-pos.		8-pos.		17-pos.	
Coupler plug-in connector, with contact carrier, without contacts	5 mm ... 8 mm	1619015	1	1607647	1	1619011	1	1607630	1
	8 mm ... 10 mm	1619016	1	1607649	1	1619012	1	1607631	1
	10 mm ... 12.5 mm	1619017	1	1624533	1	1619013	1	1624530	1
		Accessories				Accessories			
Crimp contacts		For socket contacts, see page 318 onwards				For pin contacts, see page 318 onwards			
Color rings, 50 pcs. in set (to be ordered separately)		See page 412				See page 412			



Device plug-in connector, straight, front mounting

- Compatible with mating plugs with SPEEDCON or M17 standard knurled nuts
- Contact insert for support on the device or can be snapped in
- Individual marking of plug-in connectors with color rings

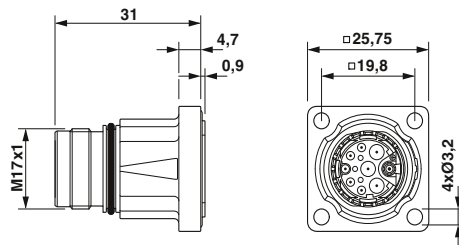


Device plug-in connector, straight, socket assembly

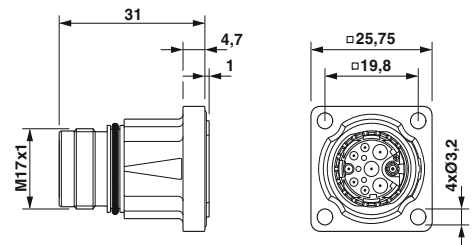


Device plug-in connector, straight, pin assembly

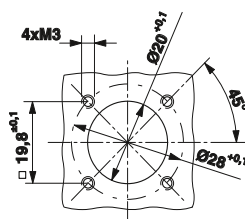
Description	Ordering data				Ordering data			
	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
Device plug-in connector , with contact carrier, without contacts, contact insert for support on the device Flange dimensions: 25.75 mm x 25.75 mm Device plug-in connector , with contact carrier, without contacts, contact insert can be snapped in Flange dimensions: 25.75 mm x 25.75 mm	8-pos.		17-pos.		8-pos.		17-pos.	
	1619197	1	1619206	1	1619196	1	1619202	1
	1619220	1	1619226	1	1619219	1	1619225	1
	Accessories				Accessories			
Crimp contacts Color rings , 50 pcs. in set (to be ordered separately)	For socket contacts, see page 318 onwards See page 412				For pin contacts, see page 318 onwards See page 412			



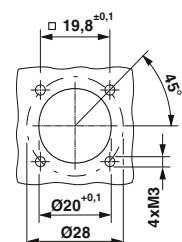
Contact insert for support on the device



Contact insert can be snapped in



Installation dimensions



Installation dimensions

M17 to M58 circular plug-in connectors

M17 - signal plug-in connectors

Device plug-in connector, angled, rotatable, front mounting

- Compatible with mating plugs with SPEEDCON or M17 standard knurled nuts
- Housing can be freely rotated up to 308°
- Individual marking of plug-in connectors with color rings
- Flange versions for M2.5/M3 attachment

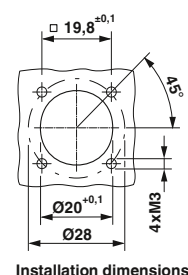
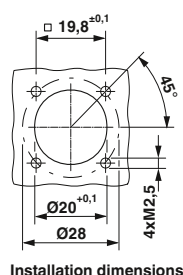
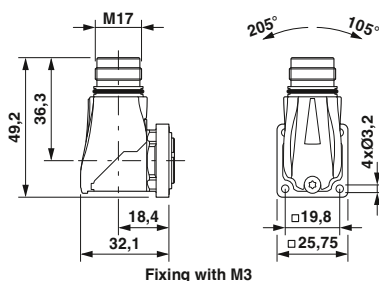
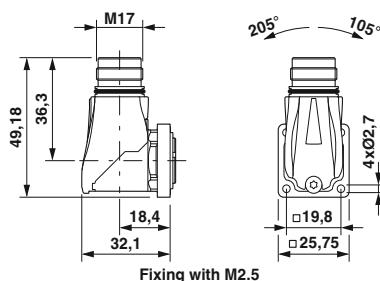


Device plug-in connector, angled, rotatable, for socket contacts



Device plug-in connector, angled, rotatable, for pin contacts

Description	Ordering data				Ordering data			
	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
	8-pos.		17-pos.		8-pos.		17-pos.	
Device plug-in connector, angled, rotatable, with contact carrier, without contacts Fixing with M2.5	1620440	1	1620442	1	1620439	1	1620441	1
Device plug-in connector, angled, rotatable, with contact carrier, without contacts Fixing with M3	1620455	1	1620457	1	1620456	1	1620458	1
	Accessories				Accessories			
	Crimp contacts Color rings, 50 pcs. in set (to be ordered separately)				For socket contacts, see page 318 onwards See page 412			
					For pin contacts, see page 318 onwards See page 412			



Device plug-in connector, central fastening thread, front/rear mounting

- Compatible with mating plugs with SPEEDCON or M17 standard knurled nuts
- Contact carrier snapped in from the device side
- Individual marking of plug-in connectors with color rings



Device plug-in connector, central fixing, socket assembly



Device plug-in connector, central fixing, pin assembly

Ordering data

Description
Device plug-in connector, front mounting , M18 x 0.75 fastening thread, with contact carrier, without contacts
Device plug-in connector, rear mounting , M20 x 1.5 fastening thread, with contact carrier, without contacts

Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
8-pos.		17-pos.	
1619036	1	1613542	1
1619035	1	1613543	1

Ordering data

Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
8-pos.		17-pos.	
1618584	1	1613540	1
1619034	1	1613541	1

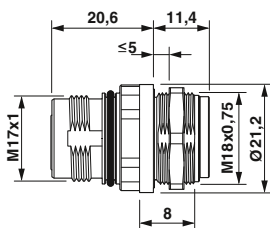
Accessories

Description
Locking nut , for mounting bore holes and anti-rotation protection
M18 x 0.75
M20 x 1.5
Crimp contacts
Color rings , 50 pcs. in set (to be ordered separately)

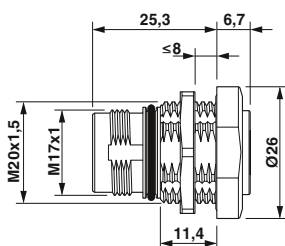
Type	Order No.	Pcs. / Pkt.
ST-E2015151	1613831	10
RC-13041	1600417	10
For socket contacts, see page 318 onwards See page 412		

Accessories

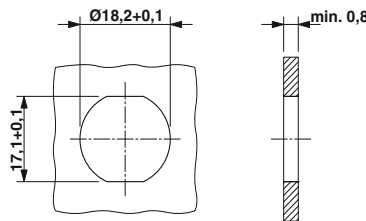
Type	Order No.	Pcs. / Pkt.
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RC-13041	1600417	10
For pin contacts, see page 318 onwards See page 412		



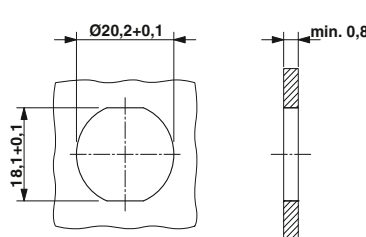
Front mounting, M18 x 0.75, order locking nut separately



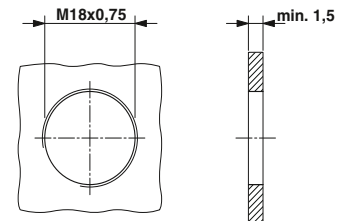
Rear mounting, M20 x 1.5, order locking nut separately



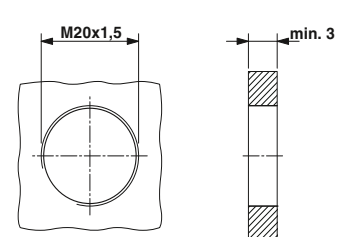
Installation dimensions: mounting with anti-rotation protection and locking nut



Installation dimensions: mounting with anti-rotation protection and locking nut



Installation dimensions: mounting with thread



Installation dimensions: mounting with thread

M17 to M58 circular plug-in connectors

M17 - signal plug-in connectors

Crimp contacts, punched-rolled

C-HC® are punched-rolled contacts. They are designed for high insertion/withdrawal cycles.

The contacts are available taped on rolls for manual or automatic processing.

Note: depending on the litz wire used, the connection cross sections (crimp ranges) may deviate from the listed values. For reasons of safety, only socket contacts may be used in the live part of the plug.



C-HC socket contacts



C-HC pin contacts

Description	Connection cross section [mm²]
Crimp contacts , C-HC punched-rolled, Ø 1.0 mm, 2500 pcs./roll	0.06 mm² ... 0.25 mm²
	0.2 mm² ... 0.56 mm²
Crimp contact C-HC punched-rolled, Ø 1.0 mm, 10,000 pcs./roll	0.06 mm² ... 0.25 mm²
	0.2 mm² ... 0.56 mm²

Crimping tools

Ordering data		
Type	Order No.	Pcs. / Pkt.
SF-10KS320	1607031	1
SF-10KS350	1607032	1
SF-10KS330	1607358	1
SF-10KS360	1607361	1

Accessories	
Order separately, see page 406	

Ordering data		
Type	Order No.	Pcs. / Pkt.
SF-10KP320	1615961	1
SF-10KP350	1615963	1
SF-10KP330	1615962	1
SF-10KP360	1615964	1

Accessories	
Order separately, see page 406	

Crimp contacts, turned

M17 signal plug-in connectors are fitted with contacts with Ø 1.0 mm or Ø 0.6 mm depending on the number of positions.

- 8-pos. versions: contacts with Ø 1.0 mm
- 17-pos. versions: contacts with Ø 0.6 mm

Note:

Depending on the litz wire used, the connection cross sections (crimp ranges) may deviate from the values listed below.



Crimp contacts, socket



Crimp contacts, pin

			Ordering data			Ordering data		
Description	Connection cross section [mm²]	Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.	
Contact socket Ø 0.6 mm	0.06 mm² ... 0.25 mm²	ST-06KS010	1607580	100				
	0.14 mm² ... 0.34 mm²	ST-06KS020	1607581	100				
	0.34 mm² ... 0.50 mm²	ST-06KS030	1607582	100				
Contact socket Ø 1.0 mm	0.06 mm² ... 0.25 mm²	ST-10KS010	1618239	100				
	0.34 mm² ... 0.5 mm²	ST-10KS020	1618251	100				
	0.5 mm² ... 1.0 mm²	ST-10KS030	1618254	100				
Contact pin Ø 0.6 mm	0.06 mm² ... 0.25 mm²				ST-06KP010	1607577	100	
	0.14 mm² ... 0.34 mm²				ST-06KP020	1607578	100	
	0.34 mm² ... 0.50 mm²				ST-06KP030	1607579	100	
Contact pin Ø 1.0 mm	0.06 mm² ... 0.25 mm²				ST-10KP010	1618255	100	
	0.34 mm² ... 0.5 mm²				ST-10KP020	1618256	100	
	0.5 mm² ... 1.0 mm²				ST-10KP030	1618261	100	
		Accessories			Accessories			
Crimping tools		Order separately, see page 407			Order separately, see page 407			

Notes:

Every plug-in connector housing type can be fitted with pin or socket contacts.

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

M17 to M58 circular plug-in connectors

M23 - signal plug-in 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:	Thermoplastic polyester (PBT), polyamide (PA 66)
Contact material:	Copper zinc alloy (CuZn)
Contact surface:	Nickel-plated (Ni) with gold coating (Au)
Contact connection method:	Solder cup, crimp, solder-in pin
Sealing and O-ring:	NBR
Flat gasket:	NBR, fiber reinforced NBR
Temperature range:	-40°C ... +125°C
Cable entry:	cable and coupler plug-in connectors for cable outside diameter of 3 - 14.5 mm, shielded
Type of locking:	M23 SPEEDCON rapid interlock system, Cable plug-in connector optionally with M23 x 1 coarse-pitch thread
Mechanical insertion/withdrawal cycles:	Standard: 100, punched-rolled C-HC crimp contacts: up to 500
Protection class:	IP67 in the locked state

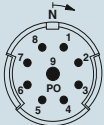
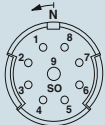
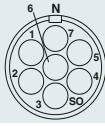
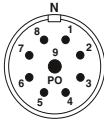
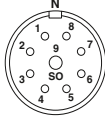
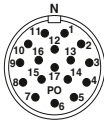
Electrical data								
Number of positions	6	7	9 (8+1)		12	17	19 (16+3)	
Contacts	6	7	8	+	1	12	17	16 + 3
Contact Ø [mm]	2	2	1		2	1	1	1 1.5
Litz wire cross section								
Solder connection: contacts x [mm²] maximum	6 x 2.5	7 x 2.5	8 x 1.0	+	1 x 2.5	12 x 1.0	17 x 1.0	16 x 1.0 + 3 x 1.0
Crimp connection: contacts x [mm²] maximum	6 x 2.5	7 x 2.5	8 x 0.56	+	1 x 2.5	12 x 0.56	17 x 0.56	16 x 1.0 + 3 x 1.0
Nominal current per contact at 25°C ¹⁾	20	20	8		20	8	8	10
Specifications according to DIN EN 61984:2009								
Rated voltage [V AC/DC]	300	300	300		150	150	150	
Test/surge voltage [kV AC]	2.5	2.5	2.5		1.5	1.5	1.5	
Surge voltage category	II	II	II		II	II	II	
Pollution degree ²⁾	3	3	3		3	3	3	
Installation height [m]	Up to 2000	Up to 2000	Up to 2000		Up to 2000	Up to 2000	Up to 2000	
Cable clamping area ³⁾ max. Ø [mm]	14.5	14.5	14.5		14.5	14.5	14.5	

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

²⁾ The values specified assume that the plug-in connector pair is correctly locked and is only disconnected for testing and maintenance purposes. If the plug-in connector is unlocked and exposed to ambient conditions, and if there is a danger of contamination, the plug-in 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.

Note:
Unlike plug-in equipment, plug-in connectors must not be plugged or unplugged under load.

Contact chamber numbering (view of plug-in side)		
Direction of rotation for contact chamber numbering (view of plug-in side)		
	Clockwise (standard)	Counter-clockwise (standard)
Number of positions	Pin	Socket
6-pos. Solder/crimp/solder-in		
7-pos. Solder/crimp/solder-in		
9-pos. (8+1) Solder/crimp/solder-in		
12-pos. Solder/crimp/solder-in		
17-pos. Solder/crimp/solder-in		
19-pos. (16+3) Solder/crimp		

Note:
The plug-in connectors can be equipped with pin or socket contacts according to the application.

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

M17 to M58 circular plug-in connectors

M23 - signal plug-in connectors

Selection guide

M23 signal plug-in connector, 6 to 19-pos., up to 20 A/300 V, solder, crimp, and solder-in connection.

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

In the case of crimp connection, the respective crimp contacts must be added according to the connection cross section.

Each housing type can be equipped with pin or socket contacts. The product chart provides an overview of the available components.

Plug-in connector type

Cable plug-in connectors

SPEEDCON rapid interlock system, see page 324.

M23 x 1 standard interlocking, see page 325.



Shielded

Coupler plug-in connectors

See page 326.



Shielded

Device plug-in connectors

Front mounting, Pg13.5 fastening thread, see page 327.

Front mounting, M20 fastening thread, see page 328.



Front mounting, flange dimensions 25 mm x 25 mm, see page 329.

Front mounting, solder-in connection flange dimensions 25 mm x 25 mm, see page 330.



Rear mounting, central fastening nut, see page 332.



Shielded

For crimp connection:

Socket contacts

Turned, see page 334.



Rolled, taped,
see page 334.

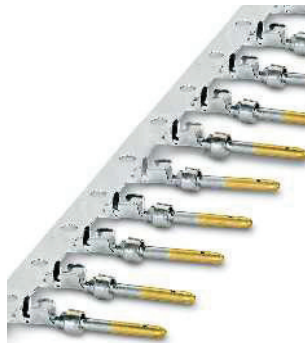


Pin contacts

Turned, see page 334.



Rolled, taped,
see page 334.



All housing can be fitted with pin or socket crimp contacts

Tools/accessories

Crimping tools

Crimping pliers for rolled
crimp contacts,
see page 404.



Crimping pliers with digital display for turned
crimp contacts,
see page 404.



Tools/accessories

Contact removal tool for device plug-in connec-
tors for releasing the contact carriers from the
plug-in side,
see page 410.



Color rings for individually marking the plug-in
connectors,
see page 412.



Note:

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

M17 to M58 circular plug-in connectors

M23 - signal plug-in connectors

Cable plug-in connector, SPEEDCON rapid interlock system

- 6 to 19-pos. versions, solder/crimp connection
- Individual marking of plug-in connectors with color rings



6, 7, 8+1-pos.



12, 17, 16+3-pos.



		Ordering data			Ordering data		
Description	Cable clamping area	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
		6-pos.		7-pos.		8+1-pos.	
Cable plug-in connector, with contact carrier, with socket contacts, solder connection							
Universal gasket	3 mm ... 14.5 mm	1619605	1	1619601	1	1619597	1
	4 mm ... 6 mm	1619579	1	1619575	1	1619571	1
	6 mm ... 10 mm	1619534	1	1619530	1	1619526	1
	10 mm ... 14.5 mm	1619508	1	1619504	1	1619500	1
Cable plug-in connector, with contact carrier, with pin contacts, solder connection							
Universal gasket	3 mm ... 14.5 mm	1619604	1	1619600	1	1619596	1
	4 mm ... 6 mm	1619578	1	1619574	1	1619570	1
	6 mm ... 10 mm	1619533	1	1619529	1	1619525	1
	10 mm ... 14.5 mm	1619507	1	1619503	1	1619499	1
Cable plug-in connector, with contact carrier, without contacts, for socket assembly, crimp connection							
Universal gasket	3 mm ... 14.5 mm	1619603	1	1619599	1	1619595	1
	4 mm ... 6 mm	1619577	1	1619573	1	1619569	1
	6 mm ... 10 mm	1619532	1	1619528	1	1619524	1
	10 mm ... 14.5 mm	1619506	1	1619502	1	1619498	1
Cable plug-in connector, with contact carrier, without contacts, for pin assembly, crimp connection							
Universal gasket	3 mm ... 14.5 mm	1619602	1	1619598	1	1619594	1
	4 mm ... 6 mm	1619576	1	1619572	1	1619568	1
	6 mm ... 10 mm	1619531	1	1619527	1	1619523	1
	10 mm ... 14.5 mm	1619505	1	1619501	1	1619497	1
		Accessories			Accessories		
For crimp connection: crimp contacts		Order separately, see page 334 onwards			Order separately, see page 334 onwards		
Color rings, 50 pcs. in set (to be ordered separately)		See page 412			See page 412		



Cable plug-in connector, M23 standard interlocking

- Standard knurled nuts compatible with mating plugs with SPEEDCON or M23 standard external thread
- 6 to 19-pos. versions, solder/crimp connection
- Individual marking of plug-in connectors with color rings

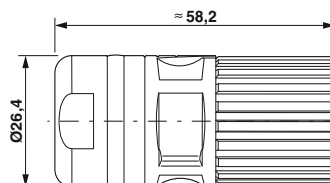


6, 7, 8+1-pos.



12, 17, 16+3-pos.

Description		Ordering data						Ordering data					
		Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
		6-pos.		7-pos.		8+1-pos.		12-pos.		17-pos.		16+3-pos.	
Cable plug-in connector, with contact carrier, with socket contacts, solder connection													
Universal gasket	3 mm ... 14.5 mm	1619776	1	1619772	1	1619768	1	1619764	1	1619756	1	1619752	1
	4 mm ... 6 mm	1619750	1	1619746	1	1619742	1	1619738	1	1619730	1	1619726	1
	6 mm ... 10 mm	1619724	1	1619720	1	1619716	1	1619710	1	1619702	1	1619661	1
	10 mm ... 14.5 mm	1619659	1	1619655	1	1619651	1	1619647	1	1619639	1	1619635	1
Cable plug-in connector, with contact carrier, with pin contacts, solder connection													
Universal gasket	3 mm ... 14.5 mm	1619775	1	1619771	1	1619767	1	1619763	1	1619755	1	1619751	1
	4 mm ... 6 mm	1619749	1	1619745	1	1619741	1	1619737	1	1619729	1	1619725	1
	6 mm ... 10 mm	1619723	1	1619719	1	1619715	1	1619709	1	1619701	1	1619660	1
	10 mm ... 14.5 mm	1619658	1	1619654	1	1619650	1	1619646	1	1619638	1	1619634	1
Cable plug-in connector, with contact carrier, without contacts, for socket assembly, crimp connection													
Universal gasket	3 mm ... 14.5 mm	1619774	1	1619770	1	1619766	1	1619762	1	1619754	1		
	4 mm ... 6 mm	1619748	1	1619744	1	1619740	1	1619736	1	1619728	1		
	6 mm ... 10 mm	1619722	1	1619718	1	1619714	1	1619708	1	1619700	1		
	10 mm ... 14.5 mm	1619657	1	1619653	1	1619649	1	1619645	1	1619637	1		
Cable plug-in connector, with contact carrier, without contacts, for pin assembly, crimp connection													
Universal gasket	3 mm ... 14.5 mm	1619773	1	1619769	1	1619765	1	1619761	1	1619753	1		
	4 mm ... 6 mm	1619747	1	1619743	1	1619739	1	1619735	1	1619727	1		
	6 mm ... 10 mm	1619721	1	1619717	1	1619711	1	1619707	1	1619699	1		
	10 mm ... 14.5 mm	1619656	1	1619652	1	1619648	1	1619644	1	1619636	1		
		Accessories						Accessories					
For crimp connection: crimp contacts Color rings, 50 pcs. in set (to be ordered separately)		Order separately, see page 334 onwards See page 412						Order separately, see page 334 onwards See page 412					



M17 to M58 circular plug-in connectors

M23 - signal plug-in connectors

Coupler plug-in connector

- Compatible with mating plugs with SPEEDCON or M23 standard knurled nuts
- 6 to 19-pos. versions, solder/crimp connection
- Individual marking of plug-in connectors with color rings

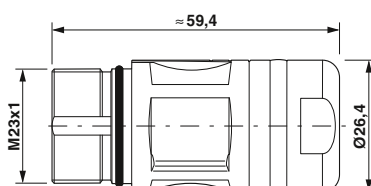


6, 7, 8+1-pos.



12, 17, 16+3-pos.

		Ordering data			Ordering data		
Description	Cable clamping area	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
		6-pos.		7-pos.		8+1-pos.	
Coupler plug-in connector, with contact carrier, with socket contacts, solder connection							
Universal gasket	3 mm ... 14.5 mm	1620172	1	1620168	1	1620164	1
	4 mm ... 6 mm	1620145	1	1620141	1	1620137	1
	6 mm ... 10 mm	1620119	1	1620115	1	1620079	1
	10 mm ... 14.5 mm	1620046	1	1620042	1	1620036	1
Coupler plug-in connector, with contact carrier, with pin contacts, solder connection							
Universal gasket	3 mm ... 14.5 mm	1620171	1	1620167	1	1620163	1
	4 mm ... 6 mm	1620144	1	1620140	1	1620136	1
	6 mm ... 10 mm	1620118	1	1620114	1	1620078	1
	10 mm ... 14.5 mm	1620045	1	1620041	1	1620035	1
Coupler plug-in connector, with contact carrier, without contacts, for socket assembly, crimp connection							
Universal gasket	3 mm ... 14.5 mm	1620170	1	1620166	1	1620162	1
	4 mm ... 6 mm	1620143	1	1620139	1	1620135	1
	6 mm ... 10 mm	1620117	1	1620081	1	1620077	1
	10 mm ... 14.5 mm	1620044	1	1620038	1	1620034	1
Coupler plug-in connector, with contact carrier, without contacts, for pin assembly, crimp connection							
Universal gasket	3 mm ... 14.5 mm	1620169	1	1620165	1	1620161	1
	4 mm ... 6 mm	1620142	1	1620138	1	1620134	1
	6 mm ... 10 mm	1620116	1	1620080	1	1620076	1
	10 mm ... 14.5 mm	1620043	1	1620037	1	1620033	1
		Accessories			Accessories		
For crimp connection: crimp contacts		Order separately, see page 334 onwards			Order separately, see page 334 onwards		
Color rings, 50 pcs. in set (to be ordered separately)		See page 412			See page 412		



Device plug-in connectors, front mounting

N

N

– Pg13.5 fastening thread

- Compatible with mating plugs with SPEEDCON or M23 standard knurled nuts
- 6 to 19-pos. versions, solder/crimp connection
- Individual marking of plug-in connectors with color rings

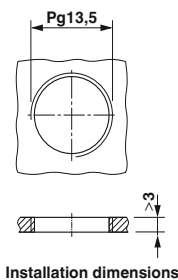


6, 7, 8+1-pos.

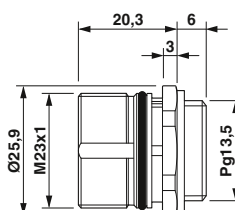


12, 17, 16+3-pos.

Description	Ordering data						Ordering data					
	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
	6-pos.		7-pos.		8+1-pos.		12-pos.		17-pos.		16+3-pos.	
Device plug-in connector, with contact carrier, with socket contacts , solder connection, Pg13.5 central fastening thread, axial seal	1619903	1	1619899	1	1619895	1	1619891	1	1619883	1	1619879	1
Device plug-in connector, with contact carrier, with pin contacts , solder connection, Pg13.5 central fastening thread, axial seal	1619902	1	1619898	1	1619894	1	1619890	1	1619882	1	1619878	1
Device plug-in connector, with contact carrier, without contacts, for socket assembly , crimp connection, Pg13.5 central fastening thread, axial seal	1619901	1	1619897	1	1619893	1	1619889	1	1619881	1		
Device plug-in connector, with contact carrier, without contacts, for pin assembly , crimp connection, Pg13.5 central fastening thread, axial seal	1619900	1	1619896	1	1619892	1	1619888	1	1619880	1		
Accessories												
For crimp connection: crimp contacts Color rings , 50 pcs. in set (to be ordered separately)	Order separately, see page 334 onwards See page 412						Order separately, see page 334 onwards See page 412					



Installation dimensions



M23 - signal plug-in connectors

N

- Compatible with mating plugs with SPEEDCON or M23 standard knurled nuts
- 6 to 19-pos. versions, solder/crimp connection
- Individual marking of plug-in connectors with color rings

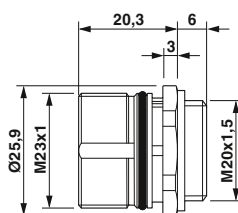
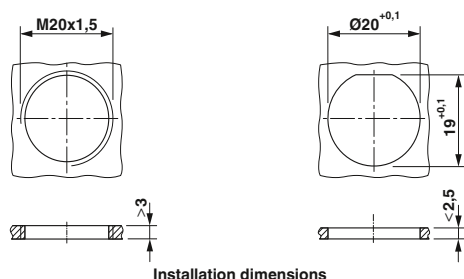


6, 7, 8+1-pos.



12, 17, 16+3-pos.

	Ordering data						Ordering data					
Description	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
	6-pos.		7-pos.		8+1-pos.		12-pos.		17-pos.		16+3-pos.	
Device plug-in connector, with contact carrier, with socket contacts, solder connection, M20 central fastening thread, axial seal	1619877	1	1619873	1	1619869	1	1619865	1	1619857	1	1619853	1
Device plug-in connector, with contact carrier, with pin contacts, solder connection, M20 central fastening thread, axial seal	1619876	1	1619872	1	1619868	1	1619864	1	1619856	1	1619852	1
Device plug-in connector, with contact carrier, without contacts, for socket assembly, crimp connection, M20 central fastening thread, axial seal	1619875	1	1619871	1	1619867	1	1619863	1	1619855	1		
Device plug-in connector, with contact carrier, without contacts, for pin assembly, crimp connection, M20 central fastening thread, axial seal	1619874	1	1619870	1	1619866	1	1619862	1	1619854	1		
	Accessories						Accessories					
Description	Type				Order No.	Pcs. / Pkt.	Type				Order No.	Pcs. / Pkt.
	RC-13041				1600417	10	RC-13041				1600417	10
Locking nut, for mounting bore holes and anti-rotation protection	Order separately, see page 334 onwards						Order separately, see page 334 onwards					
M20 x 1.5	See page 412						See page 412					
For crimp connection: crimp contacts												
Color rings, 50 pcs. in set (to be ordered separately)												



Device plug-in connectors, front mounting

- **Flange dimensions 25 mm x 25 mm**
- Compatible with mating plugs with SPEEDCON or M23 standard knurled nuts
- 6 to 19-pos. versions, solder/crimp connection
- Individual marking of plug-in connectors with color rings

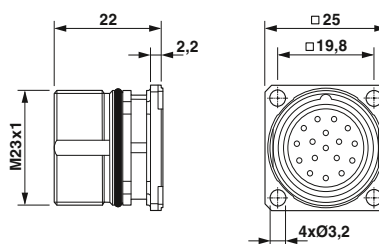
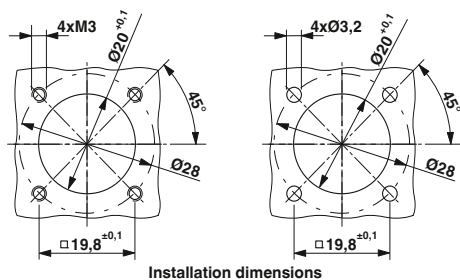


6, 7, 8+1-pos.



12, 17, 16+3-pos.

Description	Ordering data						Ordering data					
	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
	6-pos.		7-pos.		8+1-pos.		12-pos.		17-pos.		16+3-pos.	
Device plug-in connector, with contact carrier, with socket contacts, solder connection , flat gasket	1619993	1	1619989	1	1619973	1	1619969	1	1619961	1	1619957	1
Device plug-in connector, with contact carrier, with pin contacts, solder connection , flat gasket	1619992	1	1619988	1	1619972	1	1619968	1	1619960	1	1619956	1
Device plug-in connector, with contact carrier, without contacts, for socket assembly, crimp connection , flat gasket	1619991	1	1619987	1	1619971	1	1619967	1	1619959	1		
Device plug-in connector, with contact carrier, without contacts, for pin assembly, crimp connection , flat gasket	1619990	1	1619986	1	1619970	1	1619966	1	1619958	1		
Accessories												
For crimp connection: crimp contacts Color rings , 50 pcs. in set (to be ordered separately)	Order separately, see page 334 onwards See page 412						Order separately, see page 334 onwards See page 412					



M17 to M58 circular plug-in connectors

M23 - signal plug-in connectors

Device plug-in connectors,
front mounting

N

N

- Flange dimensions 25 mm x 25 mm
- Compatible with mating plugs with SPEEDCON or M23 standard knurled nuts
- 6 to 17-pos., **solder-in connection**
- Individual marking of plug-in connectors with color rings



6, 7, 8+1-pos.



12, 17-pos.

Description
Device plug-in connector , with contact carrier, with contacts, solder-in connection, free solder pin length of 3.5 mm , flat gasket
Socket
Plug
Device plug-in connector , with contact carrier, with contacts, solder-in connection, free solder pin length of 10.0 mm , flat gasket
Socket
Plug
Device plug-in connector , with contact carrier, with contacts, solder-in connection, free solder pin length of 17.5 mm , flat gasket
Socket
Plug

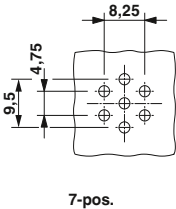
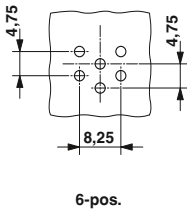
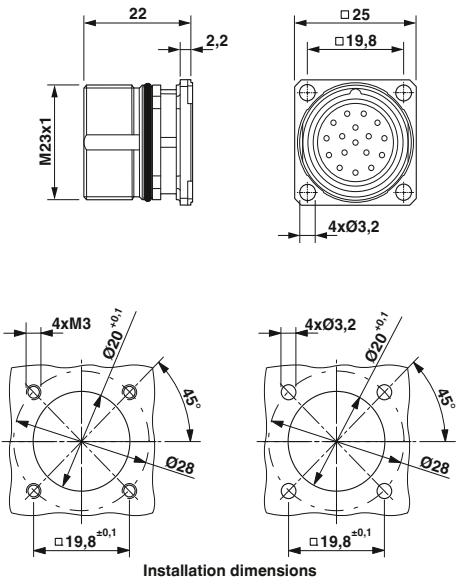
Ordering data					
Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
6-pos.		7-pos.		8+1-pos.	
1619955	1	1619953	1	1619951	1
1619954	1	1619952	1	1619950	1
1619931	1	1619929	1	1619927	1
1619930	1	1619928	1	1619926	1
1619916	1	1619914	1	1619912	1
1619915	1	1619913	1	1619911	1

Ordering data					
Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
12-pos.		17-pos.			
1619949	1	1619933	1		
1619948	1	1619932	1		
1619925	1	1619918	1		
1619924	1	1619917	1		
1619910	1	1619905	1		
1619909	1	1619904	1		

Color rings, 50 pcs. in set (to be ordered separately)

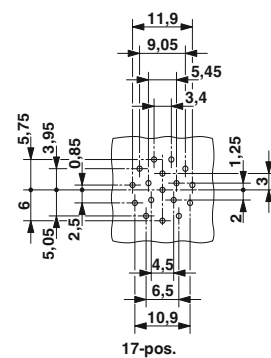
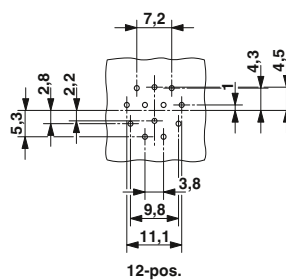
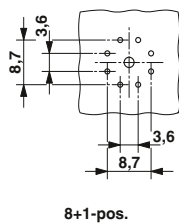
Accessories
See page 412

Accessories
See page 412



Device plug-in connectors, front mounting, PCB hole patterns

The free solder pin length is the distance between the mounting flange of the device connector and end of the soldered-in pin. In this measurement, the housing wall thickness and distance to the PCB are included.



M17 to M58 circular plug-in connectors

M23 - signal plug-in connectors

Device plug-in connector, rear mounting

- Compatible with mating plugs with SPEEDCON or M23 standard knurled nuts
- 6 to 19-pos. versions, solder/crimp connection
- Individual marking of plug-in connectors with color rings

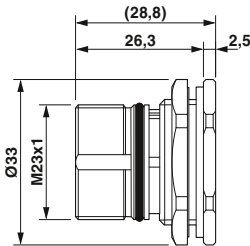
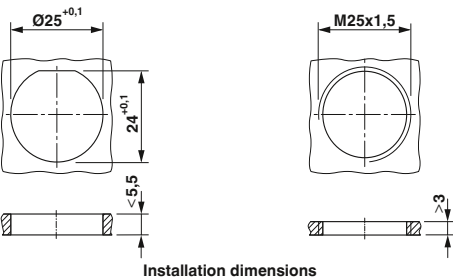


6, 7, 8+1-pos.



12, 17, 16+3-pos.

Description	Ordering data						Ordering data					
	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
Device plug-in connector , with contact carrier, with socket contacts , solder connection , central fixing nut , axial seal	6-pos.		7-pos.		8+1-pos.		12-pos.		17-pos.		16+3-pos.	
Device plug-in connector , with contact carrier, with pin contacts , solder connection , central fixing nut , axial seal	1619851	1	1619847	1	1619843	1	1619790	1	1619782	1	1619778	1
Device plug-in connector , with contact carrier, without contacts , for socket assembly , crimp connection , central fixing nut , axial seal	1619850	1	1619846	1	1619842	1	1619789	1	1619781	1	1619777	1
Device plug-in connector , with contact carrier, without contacts , for pin assembly , crimp connection , central fixing nut , axial seal	1619849	1	1619845	1	1619841	1	1619788	1	1619780	1		
	1619848	1	1619844	1	1619791	1	1619787	1	1619779	1		
	Accessories						Accessories					
For crimp connection: crimp contacts Color rings , 50 pcs. in set (to be ordered separately)	Order separately, see page 334 onwards See page 412						Order separately, see page 334 onwards See page 412					



M17 to M58 circular plug-in connectors

M23 - signal plug-in connectors

Crimp contacts

Pin and socket crimp contacts with various connection cross sections can be ordered for each crimp contact carrier.



Rolled crimp contacts



Turned crimp contacts

Ordering data				Ordering data			
Description	Contacts / connection cross section [mm²]	Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.
Crimp contacts for contact carriers, 6-pos., 6 x Ø 2.0 mm	Pin Ø 2.0 mm / 1.0 ... 1.5				RC-5CP2000	1603513	50
	Socket Ø 2.0 mm / 1.0 ... 1.5				RC-5CS2000	1603517	50
	Pin Ø 2.0 mm / 1.5 ... 2.5				RC-5AP2000	1603505	50
	Socket Ø 2.0 mm / 1.5 ... 2.5				RC-5AS2000	1603509	50
Crimp contacts for contact carriers, 7-pos., 7 x Ø 2.0 mm	Pin Ø 2.0 mm / 1.0 ... 1.5				RC-5CP2000	1603513	50
	Socket Ø 2.0 mm / 1.0 ... 1.5				RC-5CS2000	1603517	50
	Pin Ø 2.0 mm / 1.5 ... 2.5				RC-5AP2000	1603505	50
	Socket Ø 2.0 mm / 1.5 ... 2.5				RC-5AS2000	1603509	50
Crimp contacts for contact carriers, 9-pos. (8+1), 8 x Ø 1.0 mm, 1 x Ø 2.0 mm	Pin Ø 1.0 mm / 0.14 ... 0.56				RC-12P2000	1597862	100
	Socket Ø 1.0 mm / 0.14 ... 0.56				RC-12S2000	1599600	100
	Pin Ø 2.0 mm / 1.5 ... 2.5				RC-5AP2000	1603505	50
	Socket Ø 2.0 mm / 1.5 ... 2.5				RC-5AS2000	1603509	50
	Pin Ø 2.0 mm / 1.0 ... 1.5				RC-5CP2000	1603513	50
	Socket Ø 2.0 mm / 1.0 ... 1.5				RC-5CS2000	1603517	50
Crimp contacts for contact carriers, 12-pos., 12 x Ø 1.0 mm	Pin Ø 1.0 mm / 0.22 ... 0.56	RC-22P2000 RC-22S2000	1603321 1603327	100 100	RC-12P2000 RC-12S2000	1597862 1599600	100 100
	Socket Ø 1.0 mm / 0.22 ... 0.56						
	Pin Ø 1.0 mm / 0.14 ... 0.56						
	Socket Ø 1.0 mm / 0.14 ... 0.56						
Crimp contacts for contact carriers, 16-pos., 16 x Ø 1.0 mm	Pin Ø 1.0 mm / 0.22 ... 0.56	RC-22P2000 RC-22S2000	1603321 1603327	100 100	RC-12P2000 RC-12S2000	1597862 1599600	100 100
	Socket Ø 1.0 mm / 0.22 ... 0.56						
	Pin Ø 1.0 mm / 0.14 ... 0.56						
	Socket Ø 1.0 mm / 0.14 ... 0.56						
Accessories				Accessories			
Crimping tools		See page 404		See page 404			

M17 to M58 circular plug-in connectors

M23 - feedback plug-in 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 ... 125°C
Cable entry:	Cable and coupler plug-in connectors for cable outside diameter of 3 ... 14.5 mm, shielded
Type of locking:	M23 SPEEDCON screw locking, cable plug-in connector optionally with M23 x 1 coarse-pitch thread
Mechanical insertion/withdrawal cycles:	Standard: 100, punched-rolled C-HC crimp contacts: up to 500
Protection class:	IP67 in the locked state

Electrical data			
Number of positions	12		17
Contacts	12		17
Contact Ø [mm]	1		1
Litz wire cross section, crimp contacts turned [mm²]	0.08 ... 1.0		0.08 ... 1.0
Litz wire cross section, C-HC crimp contacts punched-rolled [mm²]	0.06 ... 0.56		0.06 ... 0.56
Cable clamping area max. Ø [mm]	14.5		14.5
Nominal current per contact at 25°C ¹⁾ [A]	8		8
Specifications according to DIN EN 61984:2009			
Rated voltage [V AC/DC]	150		100
Test/surge voltage [kV]	2.5		1.5
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]	14.5		14.5

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

²⁾ The values specified assume that the plug-in connector pair is correctly locked and is only disconnected for testing and maintenance purposes. If the plug-in connector is unlocked and exposed to ambient conditions, and if there is a danger of contamination, the plug-in 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.

Note:
Unlike plug-in equipment, plug-in connectors must not be plugged or unplugged under load.

Pin assignments and coding

Contact chamber numbering (view of plug-in side)				
Direction of rotation for contact chamber numbering (view of plug-in side)				
	Clockwise (standard) R marked	Counter-clockwise (standard) L marked	Counter-clockwise (reverse) L marked	Clockwise (reverse) R marked
Number of positions	Pin	Socket	Pin	Socket
12-pos. N-coding Crimp				
17-pos. N-coding Crimp				

Note:
Standard coding is "N". Other coding types and numbers of positions available on request

The plug-in connectors can be equipped with pin or socket contacts according to the application.

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

M17 to M58 circular plug-in connectors

M23 - feedback plug-in connectors

Selection guide

M23 signal plug-in connector,
12/17-pos., N-coding, up to 8 A/150 V,
crimp ranges up to 1 mm²

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

Crimp contacts must be ordered separately depending on the connection cross section.

Each housing type can be equipped with pin or socket contacts.

The plug-in connectors can be supplied with clockwise or counter-clockwise contact chamber numbering.

N (0°) and S (20°, on request) coding positions are possible.

The product chart provides an overview of the available components.

Plug-in connector type

Cable plug-in connectors

SPEEDCON rapid interlock system, M23 x 1 standard interlocking, see page 340.

Shielded



Square mounting flange for cable and coupler plug-in connectors for wall mounting, see page 410.

Coupler plug-in connectors

see page 342.

Shielded



Square mounting flange for cable and coupler plug-in connectors for wall mounting, see page 410.

Device plug-in connectors

Straight, 4-hole mounting
Ø 3.2,
see page 344.



Contact carriers for snapping in from the device side,
straight, 4-hole mounting
Ø 3.2, see page 344.



Shielded

Angled, rotatable,
flange dimensions 26 mm x 26 mm,
see page 345.



Angled, rotatable,
Flange dimensions 28 mm x 28 mm,
see page 345.



Crimp contacts

Socket contacts

Turned, see page 347.



Punched-rolled, taped, see page 346.



Pin contacts

Turned, see page 347.



Punched-rolled, taped, see page 346.



All housing can be fitted with pin or socket crimp contacts

Tools/accessories

Crimping tools

Crimping pliers for punched-rolled C-HC crimp contacts, see page 406.



Crimping pliers with digital display for turned crimp contacts, see page 407.



Tools/accessories

Contact removal tool for device plug-in connectors with contact carriers for snapping in from the device side, see page 410.



Color rings for individually marking the plug-in connectors, see page 412.



Note:

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

M17 to M58 circular plug-in connectors

M23 - feedback plug-in connectors

Cable plug-in connector,
SPEEDCON rapid interlock system

- 12 or 17-pos. versions
- Individual marking of plug-in connectors with color rings

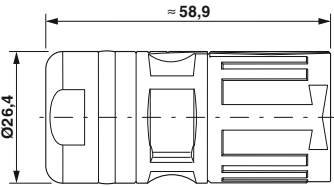


Cable plug-in connector,
socket assembly



Cable plug-in 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.
		12-pos.		17-pos.		12-pos.		17-pos.	
Cable plug-in connector , with contact carrier, without contacts, standard direction of rotation									
Universal gasket	3 mm ... 14.5 mm	1619472	1	1619470	1	1619471	1	1619469	1
	4 mm ... 6 mm	1619466	1	1619464	1	1619465	1	1619463	1
	6 mm ... 10 mm	1619460	1	1619458	1	1619459	1	1619457	1
	10 mm ... 14.5 mm	1619454	1	1619452	1	1619453	1	1619451	1
Cable plug-in connector , with contact carrier, without contacts, reverse direction of rotation									
Universal gasket	3 mm ... 14.5 mm	1619474	1			1619473	1		
	4 mm ... 6 mm	1619468	1			1619467	1		
	6 mm ... 10 mm	1619462	1			1619461	1		
	10 mm ... 14.5 mm	1619456	1			1619455	1		
		Accessories				Accessories			
Crimp contacts Color rings , 50 pcs. in set (to be ordered separately)		For socket contacts, see page 346 onwards See page 412				For pin contacts, see page 346 onwards See page 412			



Cable plug-in connector, M23 standard interlocking

- M23 standard knurled nut
- 12 or 17-pos. versions
- Individual marking of plug-in connectors with color rings

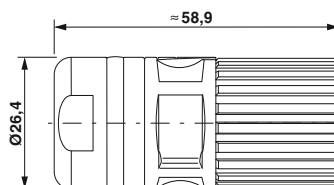


Cable plug-in connector,
socket assembly



Cable plug-in 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.
		12-pos.		17-pos.		12-pos.		17-pos.	
Cable plug-in connector housing , with contact carrier, without contacts, standard direction of rotation									
Universal gasket	3 mm ... 14.5 mm	1619631	1	1619629	1	1619630	1	1619628	1
	4 mm ... 6 mm	1619625	1	1619623	1	1619624	1	1619619	1
	6 mm ... 10 mm	1619616	1	1619614	1	1619615	1	1619613	1
	10 mm ... 14.5 mm	1619610	1	1619608	1	1619609	1	1619607	1
Cable plug-in connector housing , with contact carrier, without contacts, reverse direction of rotation									
Universal gasket	3 mm ... 14.5 mm	1619633	1			1619632	1		
	4 mm ... 6 mm	1619627	1			1619626	1		
	6 mm ... 10 mm	1619618	1			1619617	1		
	10 mm ... 14.5 mm	1619612	1			1619611	1		
		Accessories				Accessories			
Crimp contacts		For socket contacts, see page 346 onwards				For pin contacts, see page 346 onwards			
Color rings , 50 pcs. in set (to be ordered separately)		See page 412				See page 412			



M17 to M58 circular plug-in connectors

M23 - feedback plug-in connectors

Coupler plug-in connector

- Compatible with mating plugs with SPEEDCON or M23 standard knurled nuts
- 12 or 17-pos. versions
- Individual marking of plug-in connectors with color rings

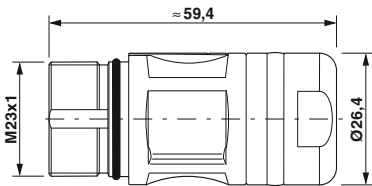


Coupler plug-in connector, socket assembly



Coupler plug-in 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.
		12-pos.		17-pos.		12-pos.		17-pos.	
Coupler plug-in connector housing , with contact carrier, without contacts, standard direction of rotation									
Universal gasket	3 mm ... 14.5 mm	1620016	1	1620014	1	1620015	1	1620013	1
	4 mm ... 6 mm	1620009	1	1620007	1	1620008	1	1620006	1
	6 mm ... 10 mm	1620003	1	1620001	1	1620002	1	1620000	1
	10 mm ... 14.5 mm	1619997	1	1619995	1	1619996	1	1619994	1
Coupler plug-in connector housing , with contact carrier, without contacts, reverse direction of rotation									
Universal gasket	3 mm ... 14.5 mm	1620018	1			1620017	1		
	4 mm ... 6 mm	1620011	1			1620010	1		
	6 mm ... 10 mm	1620005	1			1620004	1		
	10 mm ... 14.5 mm	1619999	1			1619998	1		
		Accessories				Accessories			
Crimp contacts Color rings , 50 pcs. in set (to be ordered separately)		For socket contacts, see page 346 onwards See page 412				For pin contacts, see page 346 onwards See page 412			



M17 to M58 circular plug-in connectors

M23 - feedback plug-in connectors

Device plug-in connectors, straight, front mounting

- Compatible with mating plugs with SPEEDCON or M23 standard knurled nuts
- Contact insert for support on the device or can be snapped in

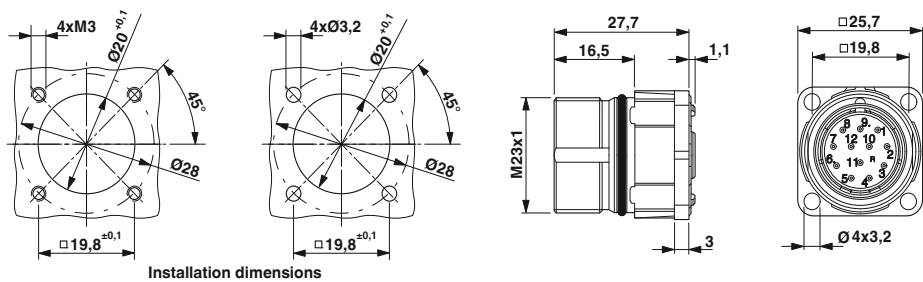


Device plug-in connector, straight, socket assembly



Device plug-in 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.
	12-pos.		17-pos.		12-pos.		17-pos.	
Device plug-in connector, straight, with contact carrier, without contacts, 4-hole fastening with Ø 3.2 mm								
Standard direction of rotation	1607283	1	1607892	1	1607236	1	1607860	1
Reverse direction of rotation	1607307	1			1607260	1		
Device plug-in connector, straight, with contact carrier, without contacts, 4-hole fastening with Ø 3.2 mm, contact insert can be snapped in								
Standard direction of rotation	1607830	1	1607893	1	1607804	1	1607863	1
Reverse direction of rotation	1607844	1			1607817	1		
	Accessories				Accessories			
Crimp contacts Color rings, 50 pcs. in set (to be ordered separately)	For socket contacts, see page 346 onwards See page 412				For pin contacts, see page 346 onwards See page 412			



Device plug-in connectors, angled, rotatable, front mounting

- Compatible with mating plugs with SPEEDCON or M23 standard knurled nuts
- Flange dimensions 26 mm x 26 mm or 28 mm x 28 mm

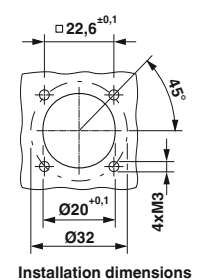
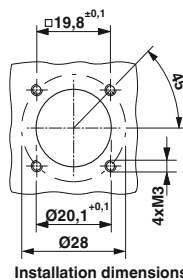
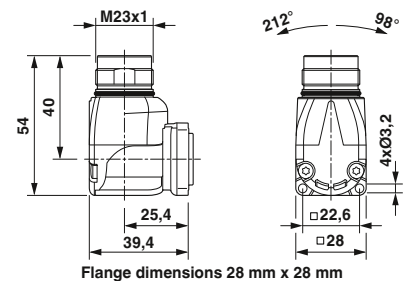
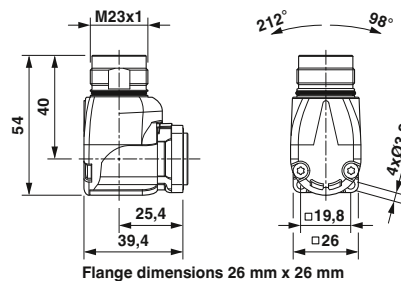


Device plug-in connector, angled, rotatable, for socket contacts



Device plug-in connector, angled, rotatable, for pin contacts

	Ordering data				Ordering data			
Description	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
	12-pos.		17-pos.		12-pos.		17-pos.	
Device plug-in connector, angled, rotatable , with contact carrier, without contacts, flange dimensions: 26 mm x 26 mm								
Standard direction of rotation	1607280	1	1607345	1	1607233	1	1607328	1
Reverse direction of rotation	1607304	1			1607257	1		
Device plug-in connector, angled, rotatable , with contact carrier, without contacts, flange dimensions: 28 mm x 28 mm								
Standard direction of rotation	1607827	1	1607887	1	1607802	1	1607852	1
Reverse direction of rotation	1607842	1			1607814	1		
	Accessories				Accessories			
Crimp contacts Color rings , 50 pcs. in set (to be ordered separately)	For socket contacts, see page 346 onwards See page 412				For pin contacts, see page 346 onwards See page 412			



M17 to M58 circular plug-in connectors

M23 - feedback plug-in connectors

Crimp contacts, punched-rolled

C-HC® are punched-rolled contacts. They are designed for high insertion/withdrawal cycles.

The contacts are available taped on rolls for manual or automatic processing.

Note: depending on the litz wire used, the connection cross sections (crimp ranges) may deviate from the listed values. For reasons of safety, only socket contacts may be used in the live part of the plug.



C-HC socket contacts



C-HC pin contacts

Description	Connection cross section [mm²]
Crimp contacts, C-HC punched-rolled, Ø 1.0 mm, 2500 pcs./roll	
	0.06 mm² ... 0.25 mm²
	0.2 mm² ... 0.56 mm²
Crimp contact C-HC punched-rolled, Ø 1.0 mm, 10,000 pcs./roll	
	0.06 mm² ... 0.25 mm²
	0.2 mm² ... 0.56 mm²

Crimping tools

Ordering data		
Type	Order No.	Pcs. / Pkt.
SF-10KS320	1607031	1
	1607032	1
SF-10KS350		
SF-10KS330	1607358	1
	1607361	1
SF-10KS360		

Accessories		
Order separately, see page 406 onwards		

Ordering data		
Type	Order No.	Pcs. / Pkt.
SF-10KP320	1615961	1
	1615963	1
SF-10KP350		
SF-10KP330	1615962	1
	1615964	1
SF-10KP360		

Accessories		
Order separately, see page 406 onwards		

Crimp contacts, turned

M23 feedback plug-in connectors are fitted with 12 or 17 SF series signal contacts with Ø 1 mm depending on the number of positions.

These contacts are also used with M23 power plug-in connectors as signal contacts. This simplifies handling and warehousing considerably.

Note: depending on the litz wire used, the connection cross sections (crimp ranges) can differ from the values mentioned below.



Crimp contacts socket



Crimp contacts pin

		Ordering data			Ordering data		
Description	Connection cross section [mm²]	Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.
Contact socket Ø 1.0 mm	0.06 ... 0.2	SF-6CS2000	1605562	100			
	0.14 ... 0.5	SF-10KS004	1607356	100			
	0.5 ... 1.0	SF-6AS2000	1605557	100			
Contact pin Ø 1.0 mm	0.06 ... 0.2				SF-6CP2000	1605559	100
	0.14 ... 0.5				SF-10KP004	1607355	100
	0.5 ... 1.0				SF-6AP2000	1605554	100
		Accessories			Accessories		
Crimping tools		Order separately, see page 407			Order separately, see page 407		

Notes:
Every plug-in connector housing type can be fitted with pin or socket contacts.

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

M17 to M58 circular plug-in connectors

M17 - power plug-in 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 ... 125°C
Cable entry:	Cable and coupler plug-in connectors for cable outside diameter of 3.5 - 11 mm, shielded (M17 Compact) 5 - 12.5 mm, shielded (M17)
Type of locking:	M17 SPEEDCON rapid interlock system, cable plug-in connector Optionally with M17 x 1 coarse-pitch thread
Mechanical insertion/withdrawal cycles:	Standard: 100, punched-rolled C-HC crimp contacts: up to 500
Protection class:	IP67 in the locked state

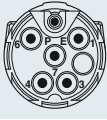
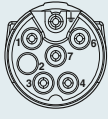
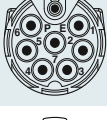
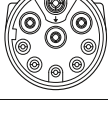
Electrical data									
Number of positions	4 (3+PE)	6 (5+PE)	7 (6+PE)	8 (7+PE)	9 (5+3+PE)				
Contacts	3 + PE	5 + PE	6 + PE	7 + PE	5	+	3	+	PE
Contact Ø [mm]	2	1	1	1	0.6		1		1
Litz wire cross section, crimp contacts	[mm²]	0.25 ... 2.5	0.06 ... 1.0	0.06 ... 1.0	0.06 ... 1.0	0.06 ... 0.5	0.06 ... 1.0		0.06 ... 1.0
Turned									
Litz wire cross section, C-HC crimp contacts	[mm²]	–	0.08 ... 0.56	0.06 ... 0.56	0.06 ... 0.56	–			–
Punched-rolled									
Nominal current per contact at 25°C ¹⁾	20 (25) ²⁾	14	14	14	3.6		14		–
Specifications according to DIN EN 61984:2009									–
Rated voltage [V AC/DC]	630	630	630	630	60		630		–
Test/surge voltage [kV AC]	6	6	6	6	1.5		6		–
Surge voltage category	III	III	III	III			III		
Pollution degree ³⁾	3	3	3	3			3		
Installation height [m]	Up to 3000	Up to 3000	Up to 3000	Up to 3000			Up to 3000		
Cable clamping area ⁴⁾ max. Ø [mm]	12.5	12.5	12.5	12.5			12.5		

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

²⁾ 25 A in the case of assignment with 3 x 2.5 mm²

³⁾ The values specified assume that the plug-in connector pair is correctly locked and is only disconnected for testing and maintenance purposes. If the plug-in connector is unlocked and exposed to ambient conditions, and if there is a danger of contamination, the plug-in connector must be sealed using a protective cap ≥ IP54.

⁴⁾ 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
4-pos. (3+PE) Crimp		
6-pos. (5+PE) (Contact chambers 2+5 closed) Crimp		
7-pos. (6+PE) Crimp		
8-pos. (7+PE) Crimp		
9-pos. (5+3+PE) Crimp		
* with grounding spring PE leading		* with grounding spring PE leading

Note:
The plug-in connectors can be equipped with pin or socket contacts according to the application.

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

M17 to M58 circular plug-in connectors

M17 - power plug-in connectors

Selection guide

M17 power plug-in connectors, 4/6/7/8/9-pos., up to 20 A/630 V, crimp ranges: 0.06 mm² to 2.5 mm²

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

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

Each housing type can be equipped with pin or socket contacts. Cable plug-in connectors can be optionally equipped with SPEEDCON rapid interlock system or with M17 x 1 coarse-pitch thread. The plug-in connectors with external thread are fully compatible with standard threads and the SPEEDCON rapid interlock system.

The product chart provides an overview of the available components.

Plug-in connector type

Cable plug-in connector

SPEEDCON rapid interlock system, M17 Compact, see page 352.



M17, see page 356.



M17 x 1 standard interlocking, M17, see page 357.



Square mounting flange for cable and coupler plug-in connectors for wall mounting, see page 410.



Shielded

Coupler plug-in connector/panel feed-through

Coupler plug-in connector M17 Compact, see page 353.



M17, see page 358.



Panel feed-through M17 Compact, see page 354.



Shielded

Device plug-in connector

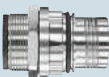
Straight, M17 Compact, see page 355.



Straight, M17, see page 359.



Straight, with central fastening thread, front mounting, M17, see page 361.



Straight, with central fastening thread, rear mounting, M17, see page 361.



Shielded

Angled, rotatable, M17, see page 360.



Crimp contacts

Socket contacts

Turned, see page 363.



Punched-rolled, taped, see page 362.



Pin contacts

Turned, see page 363.



Punched-rolled, taped, see page 362.



Note:

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

Tools/accessories

Crimping tools

Crimping pliers for punched-rolled C-HC crimp contacts, see page 406.



Crimping pliers with digital display for turned crimp contacts, see page 407.



Tools/accessories

Contact removal tool for device plug-in connectors with contact carriers for snapping in from the device side, see page 410.



Color rings for individually marking the plug-in connectors, see page 412.



All housing can be fitted with pin or socket crimp contacts

M17 to M58 circular plug-in connectors

M17 - power plug-in connectors

M17 Compact cable plug-in connector

- High packing density in a compact product
- Individual marking of plug-in connectors with color rings

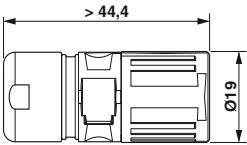


3+PE, 5+PE, 6+PE-pos.



7+PE, 5+3+PE-pos.

		Ordering data						Ordering data					
Description	Cable clamping area	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
		3+PE-pos.		5+PE-pos.		6+PE-pos.		7+PE-pos.		5+3+PE-pos.			
Cable plug-in connector, with contact carrier, without contacts, for socket assembly	3.5 mm ... 5.5 mm	1618312	1	1618621	1	1618632	1	1618633	1	1618674	1		
	5 mm ... 9 mm	1618408	1	1618620	1	1618631	1	1618634	1	1618675	1		
	9 mm ... 11 mm	1618603	1	1618619	1	1618630	1	1618635	1	1618676	1		
Cable plug-in connector, with contact carrier, without contacts, for pin assembly	3.5 mm ... 5.5 mm	1618602	1	1618614	1	1618622	1	1618640	1	1618681	1		
	5 mm ... 9 mm	1618574	1	1618615	1	1618623	1	1618639	1	1618680	1		
	9 mm ... 11 mm	1618575	1	1618616	1	1618624	1	1618638	1	1618679	1		
		Accessories						Accessories					
Crimp contacts		Order separately, see page 362 onwards						Order separately, see page 362 onwards					
Color rings, 50 pcs. in set (to be ordered separately)		See page 412						See page 412					



M17 Compact coupler plug-in connector

- Compatible with mating plugs with SPEEDCON or M17 standard knurled nuts
- Individual marking of plug-in connectors with color rings



3+PE, 5+PE, 6+PE-pos.



7+PE, 5+3+PE-pos.

		Ordering data						Ordering data					
Description	Cable clamping area	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
		3+PE-pos.		5+PE-pos.		6+PE-pos.		7+PE-pos.		5+3+PE-pos.			
Coupler plug-in connector , with contact carrier, without contacts, for socket assembly	3.5 mm ... 5.5 mm	1618695	1	1618696	1	1618708	1	1618716	1	1618748	1		
	5 mm ... 9 mm	1618694	1	1618697	1	1618709	1	1618717	1	1618749	1		
	9 mm ... 11 mm	1618693	1	1618698	1	1618710	1	1618718	1	1618750	1		
Coupler plug-in connector , with contact carrier, without contacts, for pin assembly	3.5 mm ... 5.5 mm	1620614	1	1618703	1	1618704	1	1618712	1	1618740	1		
	5 mm ... 9 mm	1618406	1	1618702	1	1618705	1	1618713	1	1618741	1		
	9 mm ... 11 mm	1618690	1	1618701	1	1618706	1	1618714	1	1618742	1		
		Accessories						Accessories					
Crimp contacts Color rings , 50 pcs. in set (to be ordered separately)		Order separately, see page 362 onwards See page 412						Order separately, see page 362 onwards See page 412					



M17 to M58 circular plug-in connectors

M17 - power plug-in connectors

M17 Compact panel feed-through

- Panel feed-throughs suitable for front and rear mounting
- Compatible with mating plugs with SPEEDCON or M17 standard knurled nuts
- Individual marking of plug-in connectors with color rings
- **Flange dimensions**
25.7 mm x 25.7 mm

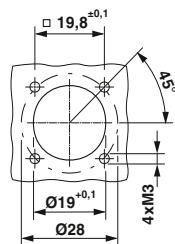
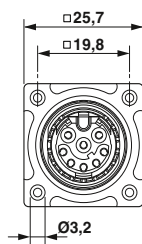
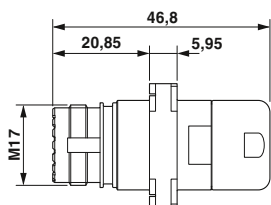


3+PE, 5+PE, 6+PE-pos.



7+PE, 5+3+PE-pos.

		Ordering data						Ordering data					
Description		Cable clamping area		Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
				3+PE-pos.		5+PE-pos.		6+PE-pos.		7+PE-pos.		5+3+PE-pos.	
Panel feed-through, with contact carrier, without contacts, for socket assembly		3.5 mm ... 5.5 mm		1618762	1	1618772	1	1618780	1	1618787	1	1618825	1
		5 mm ... 9 mm		1618763	1	1618773	1	1618781	1	1618786	1	1618824	1
		9 mm ... 11 mm		1618764	1	1618774	1	1618782	1	1618785	1	1618823	1
Panel feed-through, with contact carrier, without contacts, for pin assembly		3.5 mm ... 5.5 mm		1618402	1	1618767	1	1618776	1	1618788	1	1618818	1
		5 mm ... 9 mm		1618407	1	1618768	1	1618777	1	1618790	1	1618819	1
		9 mm ... 11 mm		1618760	1	1618769	1	1618778	1	1618791	1	1618820	1
				Accessories						Accessories			
Crimp contacts				Order separately, see page 362 onwards						Order separately, see page 362 onwards			
Color rings, 50 pcs. in set (to be ordered separately)				See page 412						See page 412			



Installation dimensions

M17 Compact device plug-in connectors, front mounting

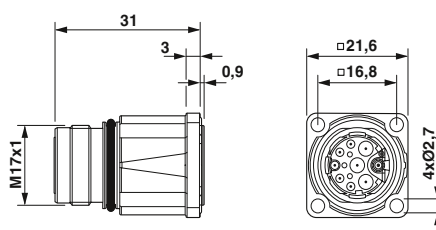
- Compatible with mating plugs with SPEEDCON or M17 standard knurled nuts
- Individual marking of plug-in connectors with color rings
- **Flange dimensions**
21.6 mm x 21.6 mm



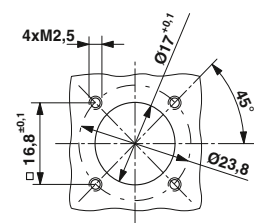
3+PE, 5+PE, 6+PE-pos.

7+PE, 5+3+PE-pos.

Description	Ordering data						Ordering data					
	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
	3+PE-pos.		5+PE-pos.		6+PE-pos.		7+PE-pos.		5+3+PE-pos.			
Device plug-in connector, with contact carrier, without contacts, for socket assembly	1607694	1	1607728	1	1613589	1	1607769	1	1613631	1		
Contact insert for support on the device												
Device plug-in connector, with contact carrier, without contacts, for pin assembly	1607675	1	1607711	1	1613570	1	1607747	1	1613612	1		
Contact insert for support on the device												
Device plug-in connector, with contact carrier, without contacts, for socket assembly	1607692	1	1607727	1	1613588	1	1607768	1	1613630	1		
Contact insert can be snapped in												
Device plug-in connector, with contact carrier, without contacts, for pin assembly	1607674	1	1607710	1	1613569	1	1607746	1	1613611	1		
Contact insert can be snapped in												
Accessories												
Crimp contacts	Order separately, see page 362 onwards						Order separately, see page 362 onwards					
Color rings, 50 pcs. in set (to be ordered separately)	See page 412						See page 412					



Flange dimensions 21.6 mm x 21.6 mm



Installation dimensions

M17 to M58 circular plug-in connectors

M17 - power plug-in connectors

Cable plug-in connector,
SPEEDCON rapid interlock system

- SPEEDCON rapid interlock system or M17 standard interlocking
- Standard knurled nuts compatible with mating plugs with SPEEDCON or M17 standard external thread
- Individual marking of plug-in connectors with color rings

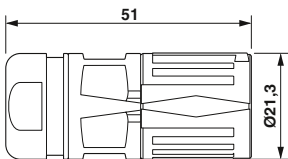


3+PE, 5+PE, 6+PE-pos.



7+PE, 5+3+PE-pos.

		Ordering data						Ordering data					
Description	Cable clamping area	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
		3+PE-pos.		5+PE-pos.		6+PE-pos.		7+PE-pos.		5+3+PE-pos.			
Cable plug-in connector, with contact carrier, without contacts, for socket assembly	5 mm ... 8 mm	1607683	1	1607718	1	1613578	1	1607756	1	1613620	1		
	8 mm ... 10 mm	1607685	1	1607720	1	1613580	1	1607759	1	1613622	1		
	10 mm ... 12.5 mm	1624538	1	1624544	1	1624550	1	1624556	1	1624639	1		
Cable plug-in connector, with contact carrier, without contacts, for pin assembly	5 mm ... 8 mm	1607665	1	1607700	1	1613559	1	1607736	1	1613601	1		
	8 mm ... 10 mm	1607667	1	1607702	1	1613561	1	1607738	1	1613603	1		
	10 mm ... 12.5 mm	1624535	1	1624541	1	1624547	1	1624553	1	1624637	1		
		Accessories						Accessories					
Crimp contacts		Order separately, see page 362 onwards						Order separately, see page 362 onwards					
Color rings, 50 pcs. in set (to be ordered separately)		See page 412						See page 412					



Cable plug-in connector, M17 standard interlocking

- Standard knurled nuts compatible with mating plugs with SPEEDCON or M17 standard external thread
- Individual marking of plug-in connectors with color rings

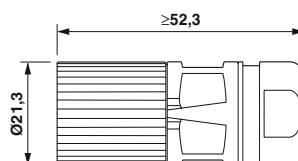


3+PE, 5+PE, 6+PE-pos.



7+PE, 5+3+PE-pos.

		Ordering data						Ordering data					
Description	Cable clamping area	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
		3+PE-pos.		5+PE-pos.		6+PE-pos.		7+PE-pos.		5+3+PE-pos.			
Cable plug-in connector , with contact carrier, without contacts, for socket assembly	5 mm ... 8 mm	1607682	1	1607717	1	1613577	1	1607755	1	1613619	1		
	8 mm ... 10 mm	1607684	1	1607719	1	1613579	1	1607758	1	1613621	1		
	10 mm ... 12.5 mm	1624537	1	1624534	1	1624549	1	1624555	1	1624638	1		
Cable plug-in connector , with contact carrier, without contacts, for pin assembly	5 mm ... 8 mm	1607663	1	1607699	1	1613558	1	1607735	1	1613600	1		
	8 mm ... 10 mm	1607666	1	1607701	1	1613560	1	1607737	1	1613602	1		
	10 mm ... 12.5 mm	1624534	1	1624540	1	1624546	1	1624552	1	1624636	1		
		Accessories						Accessories					
Crimp contacts		Order separately, see page 362 onwards						Order separately, see page 362 onwards					
Color rings , 50 pcs. in set (to be ordered separately)		See page 412						See page 412					



M17 to M58 circular plug-in connectors

M17 - power plug-in connectors

Coupler plug-in connector

- Compatible with mating plugs with SPEEDCON or M17 standard knurled nuts
- Individual marking of plug-in connectors with color rings

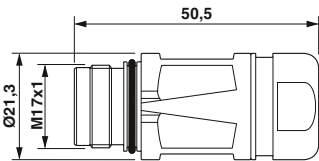


3+PE, 5+PE, 6+PE-pos.



7+PE, 5+3+PE-pos.

		Ordering data						Ordering data					
Description	Cable clamping area	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
		3+PE-pos.		5+PE-pos.		6+PE-pos.		7+PE-pos.		5+3+PE-pos.			
Coupler plug-in connector , with contact carrier, without contacts, for socket assembly		5 mm ... 8 mm	1607688	1	1607723	1	1613583	1	1607764	1	1613625	1	
		8 mm ... 10 mm	1607689	1	1607724	1	1613584	1	1607765	1	1613626	1	
		10 mm ... 12.5 mm	1624539	1	1624545	1	1624551	1	1624557	1	1624654	1	
Coupler plug-in connector , with contact carrier, without contacts, for pin assembly		5 mm ... 8 mm	1607670	1	1607706	1	1613564	1	1607741	1	1613606	1	
		8 mm ... 10 mm	1607671	1	1607707	1	1613565	1	1607742	1	1613607	1	
		10 mm ... 12.5 mm	1624536	1	1624542	1	1624548	1	1624554	1	1624653	1	
		Accessories						Accessories					
Crimp contacts		Order separately, see page 362 onwards						Order separately, see page 362 onwards					
Color rings , 50 pcs. in set (to be ordered separately)		See page 412						See page 412					



Device plug-in connector, straight, front mounting

- Compatible with mating plugs with SPEEDCON or M17 standard knurled nuts
- Contact insert for support on the device or can be snapped in
- Individual marking of plug-in connectors with color rings
- **Flange dimensions**
25.7 mm x 25.7 mm

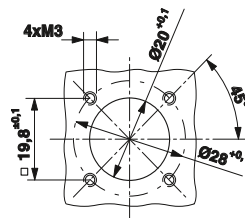


3+PE, 5+PE, 6+PE-pos.

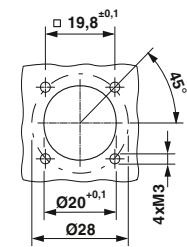


7+PE, 5+3+PE-pos.

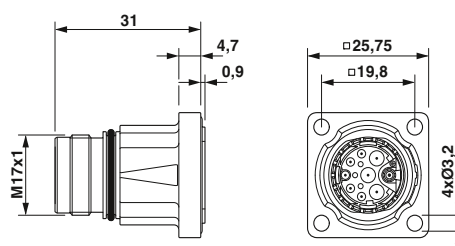
Description	Ordering data						Ordering data					
	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
	3+PE-pos.		5+PE-pos.		6+PE-pos.		7+PE-pos.		5+3+PE-pos.			
Device plug-in connector, with contact carrier, without contacts, for socket assembly	1619189	1	1619191	1	1619193	1	1619195	1	1620459	1		
Contact insert for support on the device												
Device plug-in connector, with contact carrier, without contacts, for pin assembly	1619186	1	1619190	1	1619192	1	1619194	1	1620460	1		
Contact insert for support on the device												
Device plug-in connector, with contact carrier, without contacts, for socket assembly	1619212	1	1619214	1	1619216	1	1619218	1	1620461	1		
Contact insert can be snapped in												
Device plug-in connector, with contact carrier, without contacts, for pin assembly	1619209	1	1619213	1	1619215	1	1619217	1	1620462	1		
Contact insert can be snapped in												
Accessories												
Crimp contacts	Order separately, see page 362 onwards						Order separately, see page 362 onwards					
Color rings, 50 pcs. in set (to be ordered separately)	See page 412						See page 412					



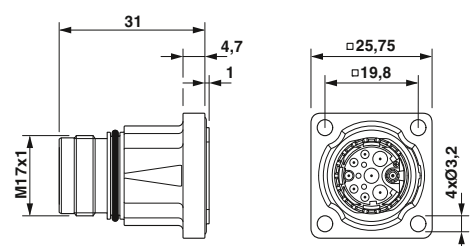
Installation dimensions



Installation dimensions



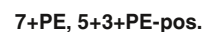
Contact insert for support on the device



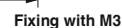
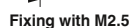
Contact insert can be snapped in

M17 - power plug-in connectors

- Compatible with mating plugs with SPEEDCON or M17 standard knurled nuts
- Housing can be freely rotated up to 308°
- Individual marking of plug-in connectors with color rings
- Flange versions for M2.5/M3 attachment
- **Flange dimensions**
25.7 mm x 25.7 mm



Crimp contacts
Color rings, 50 pcs. in set (to be ordered separately)



Device plug-in connector, central fastening thread, front/rear mounting

- Compatible with mating plugs with SPEEDCON or M17 standard knurled nuts
- Contact carrier snapped in from the device side
- Individual marking of plug-in connectors with color rings

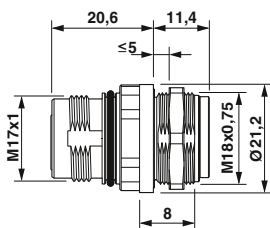


3+PE, 5+PE, 6+PE-pos.

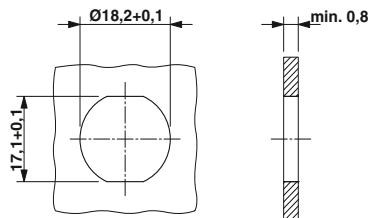


7+PE, 5+3+PE-pos.

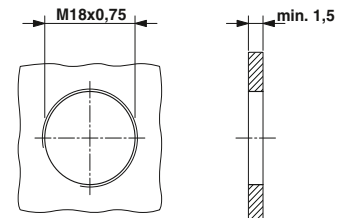
	Ordering data						Ordering data						
Description	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	
	3+PE-pos.		5+PE-pos.		6+PE-pos.		7+PE-pos.		5+3+PE-pos.				
Device plug-in connector, front mounting , M18 x 0.75 fastening thread, with contact carrier, without contacts, for socket assembly	1613546	1	1613550	1	1613572	1	1613592	1	1613614	1			
Device plug-in connector, front mounting , M18 x 0.75 fastening thread, with contact carrier, without contacts, for pin contacts	1613544	1	1613548	1	1613553	1	1613590	1	1613595	1			
Device plug-in connector, rear mounting , M20 x 1.5 fastening thread, with contact carrier, without contacts, for socket contacts	1613547	1	1613551	1	1613587	1	1613593	1	1613629	1			
Device plug-in connector, rear mounting , M20 x 1.5 fastening thread, with contact carrier, without contacts, for pin contacts	1613545	1	1613549	1	1613568	1	1613591	1	1613610	1			
Accessories													
Description	Type				Order No.	Pcs. / Pkt.	Type				Order No.	Pcs. / Pkt.	
Locking nut , for mounting bore holes and anti-rotation protection					ST-E2015151	1613831	10	ST-E2015151				1613831	10
M18 x 0.75 M20 x 1.5					RC-13041	1600417	10	RC-13041				1600417	10
Crimp contacts	Order separately, see page 362 onwards						Order separately, see page 362 onwards						
Color rings , 50 pcs. in set (to be ordered separately)	See page 412						See page 412						



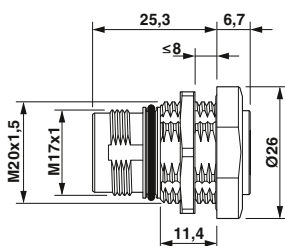
Front mounting, M18 x 0.75, order locking nut separately



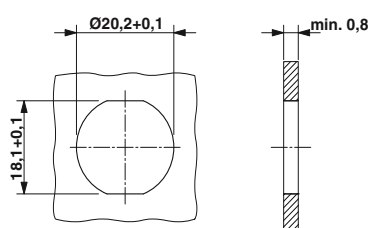
Installation dimensions: mounting with anti-rotation protection and locking nut



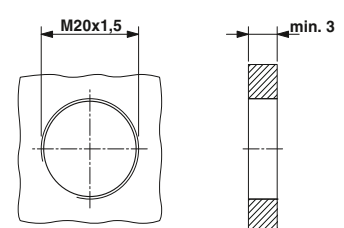
Installation dimensions: mounting with thread



Rear mounting, M20 x 1.5, order locking nut separately



Installation dimensions: mounting with anti-rotation protection and locking nut



Installation dimensions: mounting with thread

M17 to M58 circular plug-in connectors

M17 - power plug-in connectors

Crimp contacts, punched-rolled

C-HC® are punched-rolled contacts. They are designed for high insertion/withdrawal cycles.

The contacts are available taped on rolls for manual or automatic processing.

Note: depending on the litz wire used, the connection cross sections (crimp ranges) may deviate from the listed values. For reasons of safety, only socket contacts may be used in the live part of the plug.



C-HC socket contacts



C-HC pin contacts

Description	Connection cross section [mm²]
Crimp contacts, C-HC punched-rolled, Ø 1.0 mm, 2500 pcs./roll	
	0.06 mm² ... 0.25 mm²
	0.2 mm² ... 0.56 mm²
Crimp contact C-HC punched-rolled, Ø 1.0 mm, 10,000 pcs./roll	
	0.06 mm² ... 0.25 mm²
	0.2 mm² ... 0.56 mm²

Crimping tools

Ordering data		
Type	Order No.	Pcs. / Pkt.
SF-10KS320	1607031	1
SF-10KS350	1607032	1
SF-10KS330	1607358	1
SF-10KS360	1607361	1

Accessories	
Order separately, see page 406 onwards	

Ordering data		
Type	Order No.	Pcs. / Pkt.
SF-10KP320	1615961	1
SF-10KP350	1615963	1
SF-10KP330	1615962	1
SF-10KP360	1615964	1

Accessories	
Order separately, see page 406 onwards	

Contact diameter

Number of positions	Number of contacts	Contact Ø [mm]
4(3+PE)	4	2
6(5+PE)	6	1
7(6+PE)	7	1
8(7+PE)	8	1
9(5+3+PE)	5+3+PE	0.6+1+1
17	17	0.6

Crimp contacts, turned

M17 power plug-in connectors are fitted with contacts with Ø 2 mm, Ø 1 mm or Ø 0.6 mm depending on the number of positions (see table below).

Note: depending on the litz wire used, the connection cross sections (crimp ranges) may deviate from the listed values. For reasons of safety, only socket contacts may be used in the live part of the plug.



Crimp contacts socket



Crimp contacts pin

			Ordering data			Ordering data		
Description	Connection cross section [mm²]	Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.	
Contact socket Ø 2.0 mm	0.25 ... 1.0	ST-20KS010	1607657	50				
	1.0 ... 2.5	ST-20KS020	1607658	50				
Contact socket Ø 1.0 mm	0.06 mm² ... 0.25 mm²	ST-10KS010	1618239	100				
	0.34 mm² ... 0.5 mm²	ST-10KS020	1618251	100				
	0.5 mm² ... 1.0 mm²	ST-10KS030	1618254	100				
Contact socket Ø 0.6 mm	0.06 mm² ... 0.25 mm²	ST-06KS010	1607580	100				
	0.14 mm² ... 0.34 mm²	ST-06KS020	1607581	100				
	0.34 mm² ... 0.50 mm²	ST-06KS030	1607582	100				
Contact pin Ø 2.0 mm	0.25 ... 1.0				ST-20KP010 ST-20KP020	1607655	50	
	1.0 ... 2.5					1607656	50	
Contact pin Ø 1.0 mm	0.06 mm² ... 0.25 mm²				ST-10KP010 ST-10KP020 ST-10KP030	1618255	100	
	0.34 mm² ... 0.5 mm²					1618256	100	
	0.5 mm² ... 1.0 mm²					1618261	100	
Contact pin Ø 0.6 mm	0.06 mm² ... 0.25 mm²				ST-06KP010 ST-06KP020 ST-06KP030	1607577	100	
	0.14 mm² ... 0.34 mm²					1607578	100	
	0.34 mm² ... 0.50 mm²					1607579	100	
			Accessories			Accessories		
Crimping tools		Order separately, see page 407			Order separately, see page 407			

Contact diameter

Number of positions	Number of contacts	Contact Ø [mm]
4(3+PE)	4	2
6(5+PE)	6	1
7(6+PE)	7	1
8(7+PE)	8	1
9(5+3+PE)	5+3+PE	0.6+1+1
17	17	0.6

M17 to M58 circular plug-in connectors

M23 - power plug-in 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 ... 125°C
Cable entry:	Cable and coupler plug-in connectors for cable outside diameter of 7.5 - 18 mm, shielded
Type of locking:	M23 SPEEDCON screw locking, cable plug-in connector optional M23 x 1 coarse-pitch thread
Mechanical insertion/withdrawal cycles:	Standard: 100
Protection class:	IP67 in the locked state

Electrical data

Number of positions		6 (5+PE)	8 (4+3+PE)				
Contacts		5 + PE	4	+	3	+	PE
Contact Ø	[mm]	2	1		2		2
Litz wire cross sections							
Short version, cable Ø max. 14 mm	[mm²]	0.25 ... 2.5	0.06 ... 1.0		0.25 ... 2.5		0.25 ... 2.5
Long version, cable Ø max. 18 mm	[mm²]	0.25 ... 4.0	0.06 ... 1.0		0.25 ... 4.0		0.25 ... 4.0
Device plug-in connectors	[mm²]	0.25 ... 4.0	0.06 ... 1.0		0.25 ... 4.0		0.25 ... 4.0
Nominal current per contact at 25°C ¹⁾		30	9		30		–
Specifications according to DIN EN 61984:2009							–
Rated voltage	[V AC/DC]	630 ²⁾	250		630 ²⁾		–
Test/surge voltage	[kV AC]	6	4		6		–
Surge voltage category		III			III		
Pollution degree ³⁾		3			3		
Installation height	[m]	Up to 3000			Up to 3000		
Cable clamping area 4)	max. Ø [mm]	18			18		

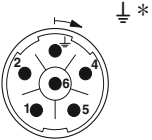
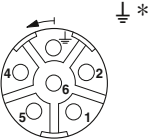
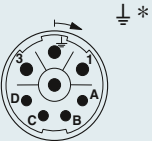
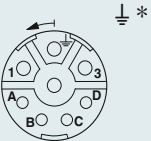
¹⁾ The effective current carrying capacity must be determined via a derating curve, if necessary, according to the application.

²⁾ 400 V when equipped with punched-rolled C-HC contacts

³⁾ The values specified assume that the plug-in connector pair is correctly locked and is only disconnected for testing and maintenance purposes. If the plug-in connector is unlocked and exposed to ambient conditions, and if there is a danger of contamination, the plug-in connector must be sealed using a protective cap ≥ IP54.

⁴⁾ 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.

Pin assignments and coding

Contact chamber numbering (view of plug-in side)				
Number of positions	Pin		Socket	
6-pos. (5 + PE) Crimp		* with grounding spring, Pos. 3 leading		* with grounding spring, Pos. 3
8-pos. (4 + 3 + PE) Crimp		* with grounding spring, Pos. 2		* with grounding spring, Pos. 2 leading

M17 to M58 circular plug-in connectors

M23 - power plug-in connectors

Selection guide

M23 power plug-in connector up to 30 A/630 V, crimp ranges up to 4 mm²

- Cable plug-in connectors
 - Coupler plug-in connectors
 - Device plug-in connectors (device flanges)
 - Feed-throughs/panel feed-throughs
- The plug-in connectors are supplied fully pre-assembled and are complemented by the respective crimp contacts.

The product chart provides an overview of the available components.

Plug-in connector type

Cable plug-in connectors

Short, SPEEDCON rapid interlock system, see page 368.

M23 x 1 standard interlocking, see page 368.



Long, SPEEDCON rapid interlock system, see page 368.

M23 x 1 standard interlocking, see page 368.

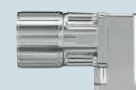


Device plug-in connectors with knurled nut

Straight, see page 371.



Angled, see page 371.



Coupler plug-in connectors

Short, see page 369.



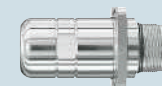
Long, see page 369.



With mounting flange
Short, see page 372.



With mounting flange
Long, see page 372.



Device plug-in connectors

Straight, see page 370.



Angled, rotatable,
flange dimensions 26 mm x 26 mm,
see page 370.



Angled, rotatable,
flange dimensions 28 mm x 28 mm
see page 370.



Panel feed-through

External socket - internal pin,
see page 373.



Panel feed-throughs are fully wired at the time of delivery

Crimp contacts

Socket contacts

Turned, see page 374.



Socket contacts

Tools/accessories

Crimping pliers with digital display for turned crimp contacts, see page 407.



Pin contacts

Turned, see page 374.



Pin contacts

Pin contacts

Accessories

Color rings for individually marking the plug-in connectors, see page 412.



Note:

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

M17 to M58 circular plug-in connectors

M23 - power plug-in connectors

Cable plug-in connectors, long and short design

- SPEEDCON rapid interlock system or M23 standard interlocking
- Standard knurled nuts compatible with mating plugs with SPEEDCON or M23 standard external thread
- Individual marking of plug-in connectors with color rings



Cable plug-in connector,
SPEEDCON

N



Cable plug-in connector,
M23 standard interlocking

Ordering data

Description Cable clamping area

Cable plug-in connector, short, with contact carrier, without contacts, for cable Ø 7.5 mm to 14 mm, connection cross section up to 2.5 mm²

Universal gasket	7.5 mm ... 14 mm
	7.5 mm ... 9 mm
	9 mm ... 11 mm
	11 mm ... 14 mm

Cable plug-in connector, long, with contact carrier, without contacts, for cable Ø 7.5 mm to 18 mm, connection cross section up to 4 mm²

Universal gasket	7.5 mm ... 18 mm
	7.5 mm ... 9 mm
	9 mm ... 12 mm
	12 mm ... 15 mm
	15 mm ... 18 mm

Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
5+PE-pos.		4+3+PE-pos.	

1618197	1	1618207	1
1618194	1	1618204	1
1618195	1	1618205	1
1618196	1	1618206	1

1618202	1	1618212	1
1618201	1	1618211	1
1618200	1	1618210	1
1618199	1	1618209	1
1618198	1	1618208	1

Ordering data

Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
5+PE-pos.		4+3+PE-pos.	

1605532	1	1605602	1
1605524	1	1605595	1
1605526	1	1605596	1
1605529	1	1605597	1

1605549	1	1605617	1
1605548	1	1605614	1
1605546	1	1605610	1
1605545	1	1605607	1
1605543	1	1605605	1

Accessories

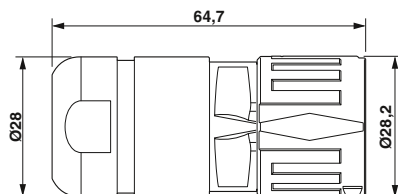
Crimp contacts

Color rings, 50 pcs. in set (to be ordered separately)

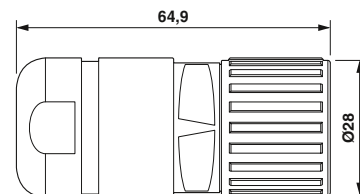
For socket contacts, see page 374
See page 412

Accessories

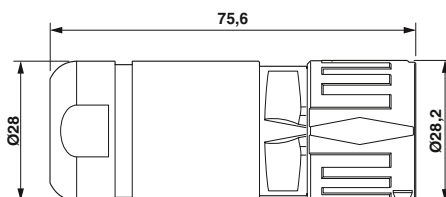
For socket contacts, see page 374
See page 412



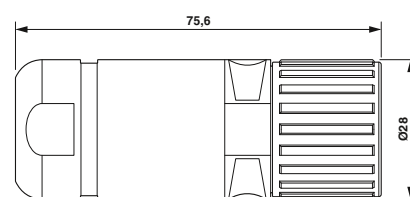
Short design



Short design



Long design



Long design

Coupler plug-in connectors, long and short design

- Compatible with mating plugs with SPEEDCON or M23 standard knurled nuts
- Individual marking of plug-in connectors with color rings



Coupler plug-in connector, short



Coupler plug-in connector, long

Ordering data

Description	Cable clamping area
-------------	---------------------

Coupler plug-in connector, short, with contact carrier, without contacts, for cable Ø 7.5 mm to 14 mm, connection cross section up to 2.5 mm²

Universal gasket	7.5 mm ... 14 mm
	7.5 mm ... 9 mm
	9 mm ... 11 mm
	11 mm ... 14 mm

Coupler plug-in connector, long, with contact carrier, without contacts, for cable Ø 7.5 mm to 18 mm, connection cross section up to 4 mm²

Universal gasket	7.5 mm ... 18 mm
	7.5 mm ... 9 mm
	9 mm ... 12 mm
	12 mm ... 15 mm
	15 mm ... 18 mm

Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
5+PE-pos.		4+3+PE-pos.	

1605499	1	1605575	1
1605494	1	1605568	1
1605496	1	1605570	1
1605498	1	1605571	1

Ordering data

Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
5+PE-pos.		4+3+PE-pos.	

1605510	1	1605583	1
1605509	1	1605582	1
1605508	1	1605581	1
1605507	1	1605580	1
1605505	1	1605578	1

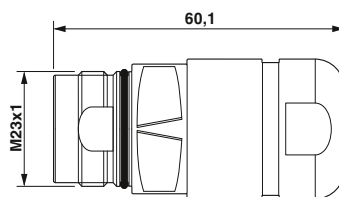
Accessories

Crimp contacts
Color rings, 50 pcs. in set (to be ordered separately)

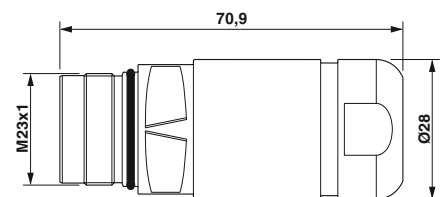
For pin contacts, see page 374
See page 412

Accessories

For pin contacts, see page 374
See page 412



Short design



Long design

M17 to M58 circular plug-in connectors

M23 - power plug-in connectors

Device plug-in connector, straight and angled, rotatable

- Compatible with mating plugs with SPEEDCON or M23 standard knurled nuts



Device plug-in connector, straight



Device plug-in connector, angled rotatable

Ordering data

Description
Device plug-in connector with contact carrier without contacts
Flange dimensions: 26 mm x 26 mm
Device plug-in connector , with reinforced contact carrier (black) for angled mating plugs, without contacts
Flange dimensions: 26 mm x 26 mm
Device plug-in connector with contact carrier without contacts
Flange dimensions: 28 mm x 28 mm

Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
5+PE-pos.		4+3+PE-pos.	
1605520	1	1605589	1
1620619	1	1620620	1

Ordering data

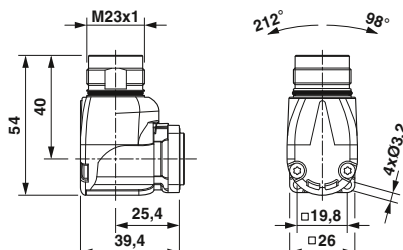
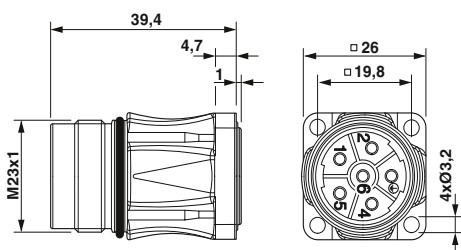
Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
5+PE-pos.		4+3+PE-pos.	
1620657	1	1620660	1
1620661	1	1620662	1

Accessories

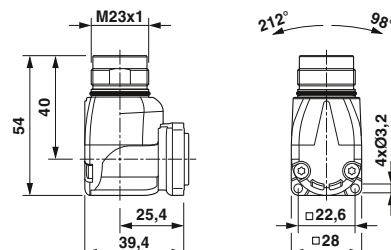
Crimp contacts
Color rings, 50 pcs. in set (to be ordered separately)

For pin contacts, see page 374
 See page 412

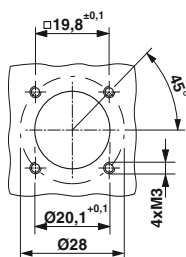
For pin contacts, see page 374
 See page 412



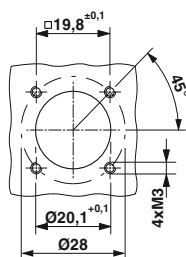
Flange dimensions 26 mm x 26 mm



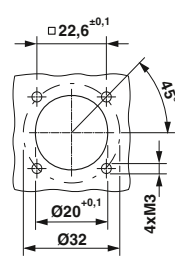
Flange dimensions 28 mm x 28 mm



Installation dimensions



Installation dimensions



Installation dimensions

Device plug-in connector with knurled nut

Device plug-in connectors with knurled nuts must be equipped with socket contacts.

- Standard knurled nuts compatible with mating plugs with SPEEDCON or M23 standard external thread

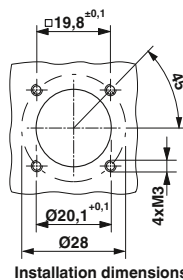
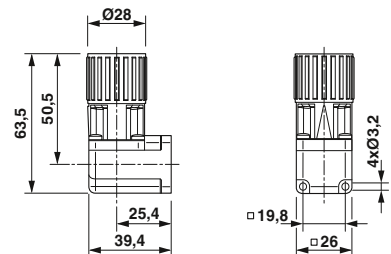
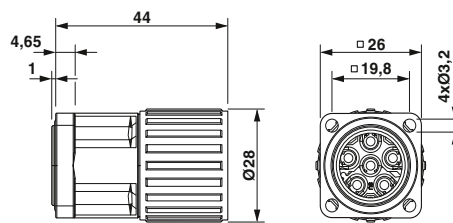


Device plug-in connector with knurled nut, straight

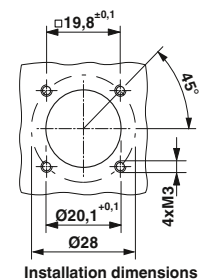


Device plug-in connector with knurled nut, angled, fixed

Description	Ordering data				Ordering data			
	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
	5+PE-pos.		4+3+PE-pos.		5+PE-pos.		4+3+PE-pos.	
	1607082		1		1605622		1	
Device plug-in connector with knurled nut, straight , with contact carrier, without contacts								
Device plug-in connector with knurled nut, angled, fixed , with contact carrier, without contacts	1607405		1		1607429		1	
Accessories				Accessories				
Crimp contacts	For socket contacts, see page 374				For socket contacts, see page 374			



Installation dimensions



Installation dimensions

M17 to M58 circular plug-in connectors

M23 - power plug-in connectors

Panel feed-through, long and short design

- Rear mounting
- Compatible with mating plugs with M23 standard knurled nuts



Panel feed-through,
short



Panel feed-through,
long

Ordering data

Description	Cable clamping area
-------------	---------------------

Panel feed-through, short with contact carrier, without contacts, for cable Ø 7.5 to 14 mm, connection cross section up to 2.5 mm²

Universal gasket	7.5 mm ... 14 mm
	7.5 mm ... 9 mm
	9 mm ... 11 mm
	11 mm ... 14 mm

Panel feed-through, long with contact carrier, without contacts, for cable Ø 7.5 to 18 mm, connection cross section up to 4 mm²

Universal gasket	7.5 mm ... 18 mm
	7.5 mm ... 9 mm
	9 mm ... 12 mm
	12 mm ... 15 mm
	15 mm ... 18 mm

Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
5+PE-pos.		4+3+PE-pos.	

1605517	1	1607051	1
1605516	1	1607048	1
1607037	1	1607049	1
1607038	1	1607050	1

Ordering data

Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
5+PE-pos.		4+3+PE-pos.	

1605518	1	1607056	1
1607042	1	1607055	1
1607041	1	1607054	1
1607040	1	1607053	1
1607039	1	1607052	1

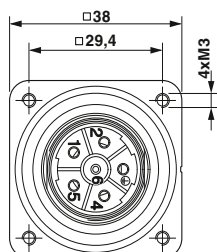
Accessories

Crimp contacts
Color rings, 50 pcs. in set (to be ordered separately)

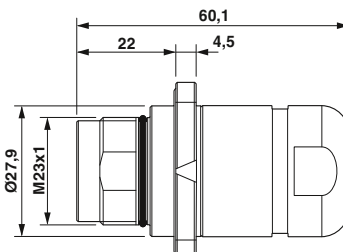
For pin contacts, see page 374
See page 412

Accessories

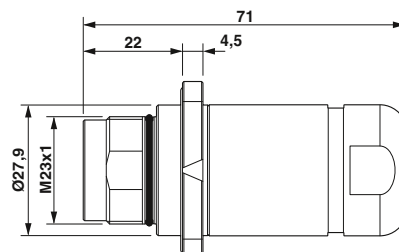
For pin contacts, see page 374
See page 412



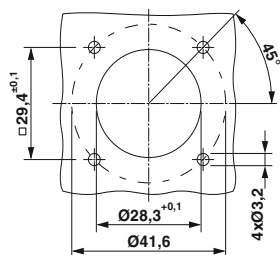
Flange dimensions for short and long design



Short design



Long design



Installation dimensions for short and long design

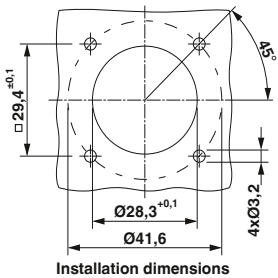
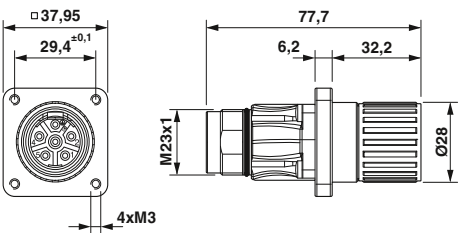
Panel feed-through, fully wired

- Front mounting
- Internally fully wired and fitted with contacts
- Compatible with mating plugs with M23 standard knurled nuts



Panel feed-through,
pin/socket

Description	Ordering data			
	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
	5+PE-pos.		4+3+PE-pos.	
Panel feed-through, pin inside - socket outside, fully wired	1605492	1	1605567	1



M17 to M58 circular plug-in connectors

M23 - power plug-in connectors

Crimp contacts, turned

The 6-pos. (5+PE) versions are assembled with 2 mm Ø contacts. The 8-pos. (4+3+PE) versions are equipped with four 1 mm Ø signal contacts and four 2 mm Ø contacts.

Note: observe the crimp ranges for cable and coupler plug-in connectors.

- Short version: connection cross sections up to 2.5 mm², max. cable diameter of 14 mm
- Long version: connection cross sections up to 4 mm², max. cable diameter of 18 mm



Crimp contacts, socket



Crimp contacts, pin

Ordering data			Ordering data		
Description	Connection cross section [mm²]	Type	Order No.	Pcs. / Pkt.	Type
Contacts, socket Ø 2.0 mm for cable and device plug-in connectors with knurled nuts, power and PE contacts	0.25 ... 1.0	SF-7PS2000	1605636	50	
	0.75 ... 1.5	SF-7NS2000	1605631	50	
	1.0 ... 2.5	SF-7QS2000	1605643	50	
	4.0	SF-7MS2000	1605628	50	
Contacts, socket Ø 1.0 mm for cable and device plug-in connectors with knurled nuts, signal contacts	0.06 ... 0.2	SF-6CS2000	1605562	100	
	0.14 ... 0.5	SF-10KS004	1607356	100	
	0.5 ... 1.0	SF-6AS2000	1605557	100	
Contacts, pin Ø 2.0 mm for coupler plug-in connectors, power and PE contacts	0.14 ... 0.25				SF-7RP2000
	0.25 ... 1.0				SF-7PP2000
	0.75 ... 1.5				SF-20KP004
	1.0 ... 2.5				SF-7QP2000
	4.0				SF-7MP2000
Contacts, pin Ø 1.0 mm for coupler plug-in connectors, signal contacts	0.06 ... 0.2				SF-6CP2000
	0.14 ... 0.5				SF-10KP004
	0.5 ... 1.0				SF-6AP2000
Contacts, pin Ø 2.0 mm for device plug-in connectors, power and PE contacts	0.14 ... 0.25				SF-7RP2000
	0.25 ... 1.0				SF-7PP2000
	0.75 ... 1.5				SF-20KP004
	1.0 ... 2.5				SF-7QP2000
	4.0				SF-7MP2000
Contacts, pin Ø 1.0 mm for device plug-in connectors, signal contacts	0.06 ... 0.2				SF-6CP2000
	0.14 ... 0.5				SF-10KP004
	0.5 ... 1.0				SF-6AP2000
Accessories			Accessories		
Crimping tools			Order separately, see page 407 onwards		Order separately, see page 407 onwards

Contact diameter

Number of positions	Number of contacts	Contact Ø [mm]
6(5+PE)	5+PE	2+2
8(4+3+PE)	4+3+PE	1+2+2

M17 to M58 circular plug-in connectors

M40 - power plug-in 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 ... 125°C
Cable entry:	Cable outside diameter 9.0 - 26.5 mm, shielded
Type of locking:	M40 SPEEDCON rapid interlock system, cable plug-in connector optionally with M40 x 1.5 coarse-pitch thread
Mechanical insertion/withdrawal cycles:	Standard: 50
Protection class	IP67 in the locked state

Electrical data											
Number of positions		6 (2+3+PE)					8 (4+3+PE)				
Contacts		2	+	3	+	PE	4	+	3	+	PE
Contact Ø	[mm]	2.0		3.6		3.6	2.0		3.6		3.6
Litz wire cross sections											
Cable and coupler plug-in connectors	[mm²]	0.14 ... 4.0		0.75 ... 16		0.75 ... 16	0.14 ... 4.0		0.75 ... 16		0.75 ... 16
Device plug-in connectors	[mm²]	0.14 ... 4.0		0.75 ... 10		0.75 ... 10	0.14 ... 4.0		0.75 ... 10		0.75 ... 10
Nominal current per contact at 25°C ¹⁾		[A]	30		70	–	30		70		–
Specifications according to DIN EN 61984:2009											
Rated voltage	[V AC/DC]	250		630		–	250		630		–
Test/surge voltage	[kV]	4		6		–	4		6		–
Surge voltage category		III					III				
Pollution degree		3					3				
Installation height	[m]	Up to 3000					Up to 3000				
Cable clamping area ²⁾	max. Ø [mm]	26.5					26.5				

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

²⁾ The cable clamping areas specified on the following pages may vary depending on the cable material/structure. Selecting and testing is the responsibility of the user.

Contact chamber numbering (view of plug-in side)		
Number of positions	Pin	Socket
6-pos. (2 + 3 + PE) Crimp		
8-pos. (4 + 3 + PE) Crimp		

* with grounding spring

M17 to M58 circular plug-in connectors

M40 - power plug-in connectors

Selection guide

M40 power plug-in connectors up to 70 A/630 V, crimp ranges up to 16 mm²

- Cable plug-in connectors
- Coupler plug-in connectors
- Device plug-in connectors (device flanges)
- Feed-throughs/panel feed-throughs

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

In order to specify an M40 power plug-in connector for the cable and device plug-in connector side, the fully pre-assembled plug housing is supplemented by the corresponding crimp contacts. M40 plug-in connectors with knurled nuts can be optionally supplied with SPEEDCON rapid interlock system or with M40 x 1.5 coarse-pitch thread.

The product chart provides an overview of the available components.

Plug-in connector type

Cable plug-in connectors

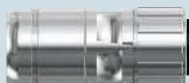
SPEEDCON rapid interlock system, see page 380.

Shielded



Mounting flange for wall mounting, see page 410.

M40 x 1.5 standard interlocking, see page 380.



Shielded

Device plug-in connectors with knurled nut

Straight, see page 382.



Angled, see page 383.



Shielded

Coupler plug-in connectors

See page 380.



Device plug-in connectors

Angled, rotatable, M17, see page 384.



Straight, see page 381.



Crimp contacts

Socket contacts

Turned, see page 385.



Socket contacts

Tools/accessories

Crimping tools

Crimping pliers, see page 407.



Crimping pliers with digital display for turned crimp contacts, see page 407.



Pin contacts

Turned, see page 385.



Pin contacts

Accessories

Color rings for individually marking the plug-in connectors, see page 412.



Note:

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

M17 to M58 circular plug-in connectors

M40 - power plug-in connectors

Cable plug-in connector

- SPEEDCON rapid interlock system or M40 standard interlocking
- Standard knurled nuts compatible with mating plugs with SPEEDCON or M40 standard external thread
- Individual marking of plug-in connectors with color rings

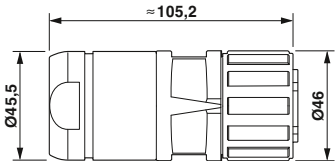
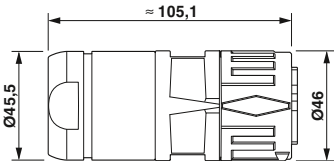


Cable plug-in connector, SPEEDCON



Cable plug-in connector

		Ordering data				Ordering data				
Description	Cable clamping area	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	
		2+3+PE-pos.		4+3+PE-pos.		2+3+PE-pos.		4+3+PE-pos.		
Cable plug-in connector housing , with contact carrier, without contacts, connection cross section up to 16 mm ²		9 mm ... 14 mm	1613428	1	1613434	1	1613518	1	1613528	1
		14 mm ... 20.5 mm	1613429	1	1613435	1	1613519	1	1613529	1
		20.5 mm ... 26.5 mm	1613430	1	1613436	1	1613520	1	1613530	1
		Accessories				Accessories				
Crimp contacts Color rings , 50 pcs. in set (to be ordered separately)		For socket contacts, see page 385 See page 412				For socket contacts, see page 385 See page 412				



Coupler and device plug-in connectors

- Compatible with mating plugs with SPEEDCON or M40 standard knurled nuts
- Individual marking of plug-in connectors with color rings

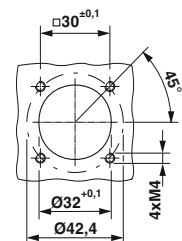
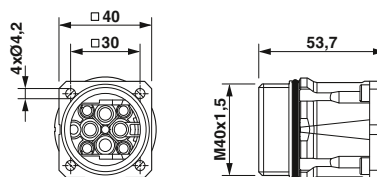
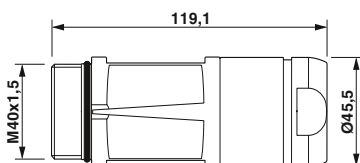


Coupler plug-in connector



Device plug-in connector, straight

		Ordering data				Ordering data			
Description	Cable clamping area	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
		2+3+PE-pos.		4+3+PE-pos.		2+3+PE-pos.		4+3+PE-pos.	
Coupler plug-in connector , with contact carrier, without contacts, connection cross section up to 16 mm ²									
	9 mm ... 14 mm	1613425	1	1613431	1				
	14 mm ... 20.5 mm	1613426	1	1613432	1				
	20.5 mm ... 26.5 mm	1613427	1	1613433	1				
Device plug-in connector, straight , with contact carrier, without contacts									
Connection cross section up to 10 mm ²						1613517	1	1613527	1
		Accessories				Accessories			
Crimp contacts		For pin contacts, see page 385				For pin contacts, see page 385			
Color rings , 50 pcs. in set (to be ordered separately)		See page 412				See page 412			



Installation dimensions

M17 to M58 circular plug-in connectors

M40 - power plug-in connectors

Device plug-in connector with knurled nut

- SPEEDCON rapid interlock system or M40 standard interlocking
- Standard knurled nuts compatible with mating plugs with SPEEDCON or M40 standard external thread
- Device plug-in connectors with knurled nuts must be fitted with socket contacts

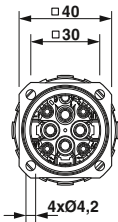
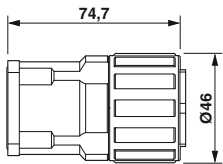
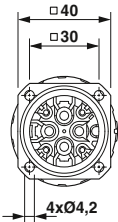
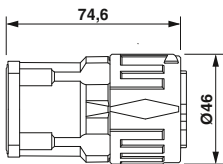
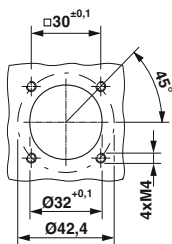


Device plug-in connector with knurled nut, straight, SPEEDCON



Device plug-in connector with knurled nut, straight

Description	Ordering data				Ordering data			
	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
	2+3+PE-pos.		4+3+PE-pos.		2+3+PE-pos.		4+3+PE-pos.	
Device plug-in connector with SPEEDCON knurled nut, straight, with contact carrier, without contacts Connection cross section up to 16 mm²	1613524	1	1613534	1				
Device plug-in connector with standard knurled nut, straight, with contact carrier, without contacts Connection cross section up to 16 mm²					1605823	1	1605865	1
	Accessories				Accessories			
Crimp contacts Color rings, 50 pcs. in set (to be ordered separately)	For socket contacts, see page 385 See page 412				For socket contacts, see page 385 See page 412			



Installation dimensions

Device plug-in connector with knurled nut

Device plug-in connectors with knurled nuts must be equipped with socket contacts.



Device plug-in connector with knurled nut, angled, SPEEDCON



Device plug-in connector with knurled nut, angled

Ordering data

Description

Device plug-in connector with SPEEDCON knurled nut, angled, with contact carrier, **without** contacts

Connection cross section up to 16 mm²

Device plug-in connector with knurled nut, angled, with contact carrier, **without** contacts

Connection cross section up to 16 mm²

Order No.

Pcs. / Pkt.

2+3+PE-pos.

Order No.

Pcs. / Pkt.

4+3+PE-pos.

1613525

1

1613535

1

Ordering data

Order No.

Pcs. / Pkt.

2+3+PE-pos.

Order No.

Pcs. / Pkt.

4+3+PE-pos.

1607532

1

1607543

1

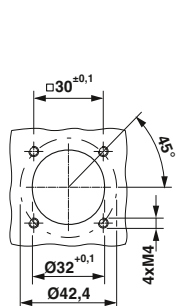
Accessories

Crimp contacts

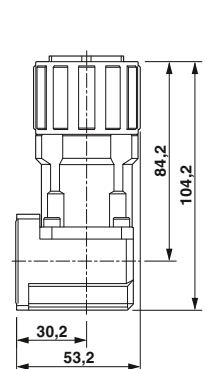
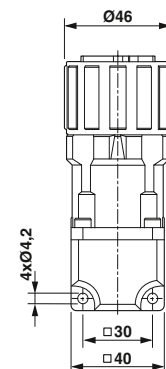
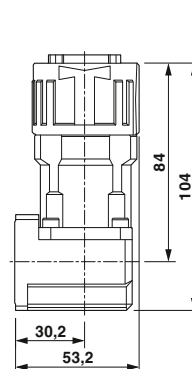
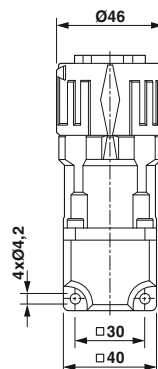
Color rings, 50 pcs. in set (to be ordered separately)

For socket contacts, see page 385
See page 412

For socket contacts, see page 385
See page 412



Installation dimensions



M17 to M58 circular plug-in connectors

M40 - power plug-in connectors

Device plug-in connector,
angled, rotatable

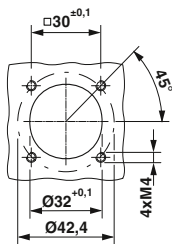
- Compatible with mating plugs with SPEEDCON or M40 standard knurled nuts
- The rotatable angled housing can be rotated freely through 310°
- Individual marking of plug-in connectors with color rings



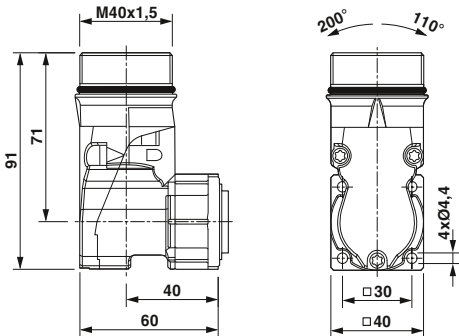
Device plug-in connector,
angled rotatable

Description
Device plug-in connector, angled, rotatable, with contact carrier, without contacts Connection cross section up to 10 mm²
Crimp contacts Color rings, 50 pcs. in set (to be ordered separately)

Ordering data			
Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
2+3+PE-pos.		4+3+PE-pos.	
1620663	1	1620664	1
Accessories			
For pin contacts, see page 385 See page 412			



Installation dimensions



Crimp contacts, turned

The 6-pos. (2+3+PE) versions are equipped with two Ø 2 mm signal contacts and four 3.6 mm contacts (three power, 1 PE contact).

The 8-pos. (4+3+PE) versions are equipped with four 2 mm signal contacts and four 3.6 mm contacts (three power, 1 PE contact).

Note: depending on the litz wire used, the connection cross sections (crimp ranges) can differ from the values mentioned below.



Crimp contacts, socket



Crimp contacts, pin

Ordering data				Ordering data			
Description	Connection cross section [mm²]	Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.
Contacts, socket Ø 3.6 mm, for cable and device plug-in connectors with knurled nuts, power and PE contacts							
	1.0 ... 2.5	SM-36KS001	1605756	20			
	2.5 ... 4.0	SM-36KS002	1605758	20			
	4.0 ... 6.0	SM-36KS003	1605760	20			
	6.0 ... 10.0 (16.0)	SM-36KS004	1605762	20			
Contacts, socket Ø 2.0 mm, for cable and device plug-in connectors with knurled nuts, signal contacts							
	0.25 ... 1.0	SF-7PS2000	1605636	50			
	0.75 ... 1.5	SF-7NS2000	1605631	50			
	1.0 ... 2.5	SF-7QS2000	1605643	50			
	4.0	SF-7MS2000	1605628	50			
Contacts, pin Ø 3.6 mm, for coupler plug-in connectors, power and PE contacts							
	1.0 ... 2.5				SM-36KP005	1605749	20
	2.5 ... 4.0				SM-36KP006	1605750	20
	4.0 ... 6.0				SM-36KP008	1605754	20
	6.0 ... 10.0 (16.0)				SM-36KP007	1605752	20
Contacts, pin Ø 2.0 mm, for coupler plug-in connectors, signal contacts							
	0.25 ... 1.0				SM-20KP006	1605738	50
	0.75 ... 1.5				SM-20KP005	1605736	50
	1.0 ... 2.5				SM-20KP007	1605739	50
	4.0				SM-20KP008	1605741	50
Contacts, pin Ø 3.6 mm, for device plug-in connectors, power and PE contacts							
	0.75 ... 1.5				SM-36KP001	1605743	20
	1.0 ... 2.5				SM-36KP009	1607057	20
	1.0 ... 4.0				SM-36KP002	1605744	20
	4.0 ... 6.0				SM-36KP003	1605745	20
	6.0 ... 10.0				SM-36KP004	1605747	20
Contacts, pin Ø 2.0 mm, for device plug-in connectors, signal contacts							
	0.14 ... 0.25				SF-7RP2000	1605646	50
	0.25 ... 1.0				SF-7PP2000	1605634	50
	0.75 ... 1.5				SF-20KP004	1607376	50
	1.0 ... 2.5				SF-7QP2000	1605639	50
	4.0				SF-7MP2000	1605626	50
Accessories				Accessories			
Crimping tools		Order separately, see page 407		Order separately, see page 407			

Number of positions	Number of contacts	Contact Ø [mm]
6(2+3+PE)	2+3+PE	2+3,6+3,6
8(4+3+PE)	4+3+PE	2+3,6+3,6

M17 to M58 circular plug-in connectors

M58 - power plug-in connectors

Mechanical and electrical data

Mechanical data

Housing material:	Aluminum
Housing surface:	Aluminum, anodized
Insulating body:	Polyamide (PA 66)
Contact surface:	Power and PE contacts: silver-plated (Ag), signal contacts: gold-plated (Au)
Contact connection method:	Crimp version
Sealing and O-ring:	Fluorocarbon rubber (FPM)
Ambient temperature:	-40°C ... 120°C
Cable entry:	Cable and coupler plug-in connectors for cable outside diameter of 17 - 36 mm, shielded
Type of locking:	M58 x 2 screw locking
Mechanical insertion/withdrawal cycles:	Standard: 100
Protection class:	IP67 in the locked state

Electrical data

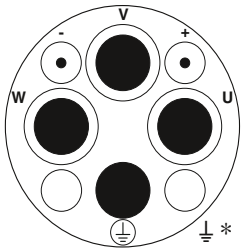
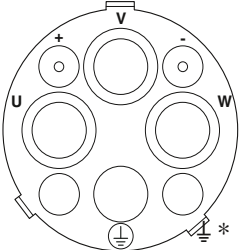
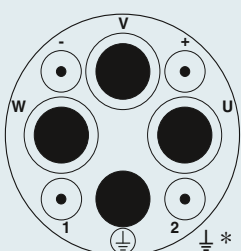
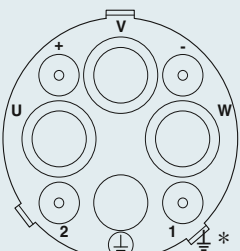
Number of positions	6 (2+3+PE)			8 (4+3+PE)		
Contacts	2	+	3	+	PE	
Contact Ø [mm]	1.6		10		10	
Litz wire cross section						
Crimp contacts, turned [mm²]	0.75 ... 1.5		10 ... 50		10 ... 50	
Nominal current per contact at 25°C ¹⁾ [A]	12		150		150	
Specifications according to DIN EN 61984:2009						
Rated voltage [V AC/DC]	250		630		630	
Test/surge voltage [kV AC]	4		6		6	
Surge voltage category			III		III	
Pollution degree			3		3	
Installation height [m]			Up to 2000		Up to 2000	
Cable clamping area ²⁾ max. Ø [mm]			36		36	

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

²⁾ The cable clamping areas specified on the following pages may vary depending on the cable material/structure. Selecting and testing is the responsibility of the user.

Note:

Unlike plug-in equipment, plug-in connectors must not be plugged or unplugged under load.

Contact chamber numbering (view of plug-in side)		
Number of positions	Pin	Socket
6-pos. (2 + 3 + PE) Crimp		
		

* with grounding spring,
PE leading

M17 to M58 circular plug-in connectors

M58 - power plug-in connectors

Selection guide

M58 power plug-in connectors up to 150 A/630 V, crimp ranges up to 50 mm²

- Cable plug-in connectors
- Coupler plug-in connectors
- Device plug-in connectors, straight

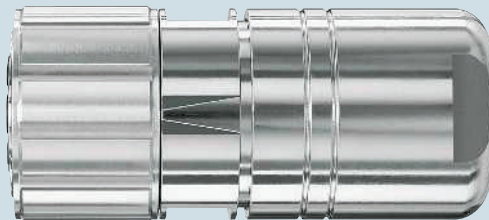
The power plug-in connectors are supplied fully pre-assembled and are complemented by the respective crimp contacts.

The product chart provides an overview of the available components.

Plug-in connector type

Cable plug-in connectors

Shielded



See page 390.

Coupler plug-in connectors

Shielded



See page 390.

Device plug-in connectors

Shielded



See page 391.

Crimp contacts

Socket contacts

Turned, see page 392.



Socket contacts

Pin contacts

Turned, see page 392.



Pin contacts

Pin contacts

Tools/accessories

Crimping tools

Crimping device for power and PE contacts
Ø 10 mm,
see page 408.



Crimping pliers, for signal contacts Ø 1.6 mm,
see page 408.



Note:

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

M17 to M58 circular plug-in connectors

M58 - power plug-in connectors

Cable and coupler plug-in connectors

- High transmission capacities of up to 630 V and 150 A
- Connection cross sections up to 50 mm²
- Cable clamping area from 17 mm to 36 mm

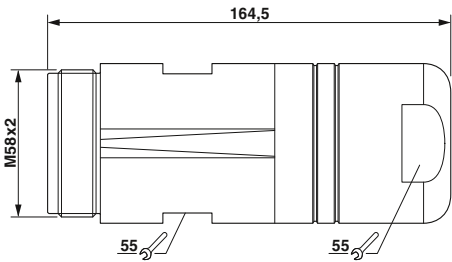
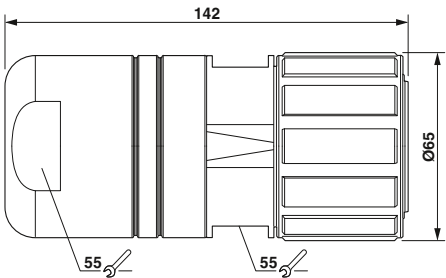


Cable plug-in connector



Coupler plug-in connector

		Ordering data				Ordering data			
Description	Cable clamping area	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
		2+3+PE-pos.		4+3+PE-pos.		2+3+PE-pos.		4+3+PE-pos.	
Plug-in connector housing, with contact carrier, without contacts, for cable diameter:	17 mm ... 25 mm	1607503	1	1607508	1	1607500	1	1607506	1
	25 mm ... 36 mm	1607501	1	1607507	1	1607499	1	1607505	1
		Accessories				Accessories			
Crimp contacts		For socket contacts, see page 392				For pin contacts, see page 392			



Device plug-in connector
for front mounting

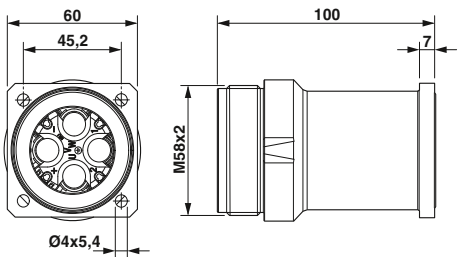
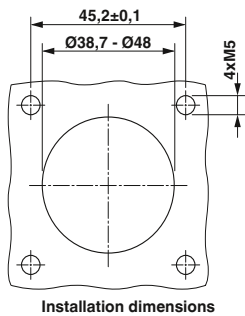
Coupler and device plug-in connectors must be fitted with pin contacts, cable plug-in connectors must be fitted with socket contacts.



Device plug-in connector, straight

Description
Device plug-in connector, straight, with contact carrier, without contacts
Crimp contacts

Ordering data			
Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
2+3+PE-pos.		4+3+PE-pos.	
1615686	1	1615687	1
Accessories			
For pin contacts, see page 392			



M17 to M58 circular plug-in connectors

M58 - power plug-in connectors

Crimp contacts, turned

The 6-pos. (2+3+PE) versions are equipped with two Ø 1.6 mm signal contacts and four 10 mm contacts (three power, 1 PE contact).

The 8-pos. (4+3+PE) versions are equipped with four 1.6 mm signal contacts and four 10 mm contacts (three power, 1 PE contact).

Note: depending on the litz wire used, the connection cross sections (crimp ranges) can differ from the values mentioned below.



Crimp contacts, socket



Crimp contacts, pin

		Ordering data			Ordering data		
Description	Connection cross section [mm²]	Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.
Contacts, socket Ø 10.0 mm for cable plug-in connectors, power and PE contacts	10.0	SL-1CKS010	1607916	4			
	16.0	SL-1CKS020	1607917	4			
	25.0	SL-1CKS030	1607918	4			
	35.0	SL-1CKS040	1607919	4			
	50.0	SL-1CKS050	1607920	4			
Contacts, socket Ø 1.6 mm for cable plug-in connectors, signal contacts	0.75 ... 1.5	SL-16KS010	1607956	4			
Contacts, pin Ø 10.0 mm for coupler and device plug-in connectors, power and PE contacts	10.0				SL-1CKP010	1607911	4
	16.0				SL-1CKP020	1607912	4
	25.0				SL-1CKP030	1607913	4
	35.0				SL-1CKP040	1607914	4
	50.0				SL-1CKP050	1607915	4
Contacts, pin Ø 1.6 mm for coupler and device plug-in connectors, signal contacts	0.75 ... 1.5				SL-16KP010	1607909	4
		Accessories			Accessories		
Crimping tools		Order separately, see page 408 onwards			Order separately, see page 408 onwards		

Number of positions	Number of contacts	Contact Ø [mm]
6(2+3+PE)	2+3+PE	1,6+10+10
8(4+3+PE)	4+3+PE	1,6+10+10

M17 to M58 circular plug-in connectors

Signal/power plug-in connectors, plastic molded

M17 and M23 plastic molded signal plug-in connectors

- Feedback plug-in connectors
- Contact resistance ≤ 0.3 ohms
- Contact material gold-plated CuZn
- Flame-retardant TPU handle material
- Knurl CuZn/Gd-Zn, nickel-plated
- IP67 protection
- Plug head temperature range -40 to +105°C
- Standard and counter direction contact numbering
- M17 and M23 standard thread - SPEEDCON rapid interlock system on request
- Angled versions rotatable

	M17, 17-pos., socket, standard, 60 V, 9 A	M23, 12-pos., socket, reverse, 150 V, 9 A	M23, 12-pos., socket, reverse, 150 V, 9 A
			
	E01	E00	E00
	Ordering data	Ordering data	Ordering data
	Order no.	Order no.	Order no.
	2 m 1624780	2 m 1619247	2 m 1619280
	5 m 1624781	5 m 1619248	5 m 1619281
	10 m 1624782	10 m 1619249	10 m 1619282
Free end			
M17, 17-pos., pin			
	2 m 1624778		
	5 m 1624783		
	10 m 1624784		
M23, 12-pos., pin		2 m 1619289	
		5 m 1619290	
		10 m 1619291	
M23, 12-pos., pin			
M23, 17-pos., pin			

Cable information:

Type/application	Color	Structure	Sheath/core material	Assignment	Temperature range
E00 Feedback	Orange	Shielded, 4 x 2 x 0.25 + 2 x 0.5	TPU/PP	1 - pink 2 - red 3 - black 4 - blue 5 - brown 6 - green 7 - violet 8 - gray 9 - exterior shield 10 - white 11 - n.c. 12 - brown	Flexible: -20°C ... 60°C Fixed: -40°C ... 80°C
E01 Feedback	Green	Shielded, 3 x 2 x 0.14 + 2 x 0.5 + 4 x 0.14 + 4 x 0.22	TPU/TPM	1 - yellow 2 - green 3 - red 4 - n.c. 5 - blue 6 - n.c. 7 - brown-blue (encoder) 8 - green-black (+temp.) 9 - green-red (-temp.) 10 - brown-red (P encoder) 11 - black 12 - brown 13 - orange 14 - white-black 15 - brown-gray (OV sense) 16 - brown-yellow (sense) 17 - interior shields 1 - 3"	Flexible: -30°C ... 60°C Fixed: -30°C ... 80°C

M17 to M58 circular plug-in connectors

Signal/power plug-in connectors, plastic molded

M23, 12-pos., socket,
standard, 150 V, 9 A



E00

Ordering data

Order no.

2 m 1619250
5 m 1619273
10 m 1619274

M23, 12-pos., socket,
standard, 150 V, 9 A



E00

Ordering data

Order no.

2 m 1619285
5 m 1619283
10 m 1619284

M23, 17-pos., socket,
standard, 100 V, 9 A



E01

Ordering data

Order no.

2 m 1619277
5 m 1619278
10 m 1619279

M23, 17-pos., socket,
standard, 100 V, 9 A



E01

Ordering data

Order no.

2 m 1619286
5 m 1619287
10 m 1619288

2 m 1619292
5 m 1619293
10 m 1619294

2 m 1619295
5 m 1619296
10 m 1619297

M17 to M58 circular plug-in connectors

Signal/power plug-in connectors, plastic molded

M17 plastic molded power plug-in connectors

- Contact resistance ≤ 0.3 ohms
- Contact material gold-plated CuZn
- Flame-retardant TPU handle material
- Knurl CuZn/Gd-Zn, nickel-plated
- IP67 protection
- Plug head temperature range -40 to +105°C
- Standard contact numbering
- M17 standard thread - SPEEDCON rapid interlock system on request

	M17, 3+PE-position, Socket, 630 V, 18 A	M17, 3+PE-position, Socket, 630 V, 26 A	M17, 5+PE-position, Socket, 630 V, 12 A
			
	B00	B01	C00
	Ordering data	Ordering data	Ordering data
	Order no.	Order no.	Order no.
	2 m 1619298	2 m 1619301	2 m 1619307
	5 m 1619299	5 m 1619302	5 m 1619308
	10 m 1619300	10 m 1619303	10 m 1619309
Free end 			
M17, 3+PE-pos., pin 	2 m 1619304 5 m 1619305 10 m 1619306	2 m 1619326 5 m 1619327 10 m 1619328	
M17, 5+PE-pos., pin 			2 m 1619316 5 m 1619317 10 m 1619318
M17, 7+PE-pos., pin 			

Cable information:

Type	Color	Structure	Sheath/core material	Assignment	Temperature range
B00 Servo	Orange	Shielded, 4 x 1.50	PUR/TPM	1 - black U 2 - black V 3 - black W PE - green/yellow"	Flexible: -20°C ... 60°C Fixed: -40°C ... 80°C
B01 Servo	Orange	Shielded, 4 x 2.50	TPU/TPM		Flexible: -20°C ... 70°C Fixed: -50°C ... 80°C
C00 Servo	Orange	Shielded, 4 x 0.75 + 2 x 0.5	PUR/TPM	1 - black U 6 - black V 7 - black W PE - green/yellow	Flexible: -30°C ... 70°C Fixed: -40°C ... 80°C
C01 Servo	Orange	Shielded, 4G1 + 2 x 0.5	PUR/TPE	3 - black, 5 (brake) 4 - black, 6 (brake)	Flexible: -5°C ... 70°C Fixed: -30°C ... 70°C
D00 Servo	Orange	Shielded, 4 x 0.75 + 2 x 2 x 0.34	PUR/TPM	1 - black U 2 - black V 3 - black W PE - green/yellow	Flexible: -30°C ... 90°C Fixed: -40°C ... 90°C
D01 Servo	Orange	Shielded, 4 x 1.0 + 2 x 2 x 0.75	PUR/TPM	A - black 5 (brake) B - black 6 (brake) C - black 7 (motor temp. +) D - black 8 (motor temp. -)	Flexible: -20°C ... 60°C Fixed: -40°C ... 80°C

M17 to M58 circular plug-in connectors

Signal/power plug-in connectors, plastic molded

M17, 5+PE-position,
Socket, 630 V, 15 A



C01

Ordering data

Order no.

2 m	1619310
5 m	1619311
10 m	1619312

M17, 7+PE-position,
Socket, 630 V, 12 A



D00

Ordering data

Order no.

2 m	1624785
5 m	1624786
10 m	1624792

M17, 7+PE-position,
Socket, 630 V, 15 A



D01

Ordering data

Order no.

2 m	1619313
5 m	1619314
10 m	1619315

2 m	1619319
5 m	1619321
10 m	1619322

2 m	1624787
5 m	1624788
10 m	1624789

2 m	1619323
5 m	1619324
10 m	1619325

M17 to M58 circular plug-in connectors

Signal/power plug-in connectors, plastic molded

M23 plastic molded power plug-in connectors

- Contact resistance ≤ 0.3 ohms
- Contact material gold-plated CuZn
- Flame-retardant TPU handle material
- Knurl CuZn/Gd-Zn, nickel-plated
- IP67 protection
- Plug head temperature range -40 to +105°C
- Standard contact numbering
- M23 standard thread - SPEEDCON rapid interlock system on request
- Angled version rotatable (only with reinforced device plug-in connector 1620619)

	M23, 3+PE-position, Socket, 630 V, 34 A	M23, 4+PE-position, Socket, 630 V, 34 A	M23, 5+PE-position, Socket, 630 V, 18 A
			
	A00	A01	C02
	Ordering data	Ordering data	Ordering data
	Order no.	Order no.	Order no.
	2 m 1624771 5 m 1619622 10 m 1624772	2 m 1625776 5 m 1625777 10 m 1625775	2 m 1618957 5 m 1618958 10 m 1618959
Free end 			
M23, 3+PE-pos., pin 	2 m 1624773 5 m 1619606 10 m 1624774		
M23, 4+PE-pos., pin 		2 m 1625779 5 m 1625781 10 m 1625780	
M23, 5+PE-pos., pin 			2 m 1618964 5 m 1618965 10 m 1618966

Cable information:

Type	Color	Structure	Sheath/core material	Assignment	Temperature range
A00 Energy	Gray	Shielded, 4 x 4.0	PVC/PVC	1 - nc 2 - black 3 PE - green/yellow 4 - black 1 5 - black 2 6 - nc	Fixed: -40°C ... 90°C
A01 energy	Gray	5 x 4.0	PVC/PVC	1 - black 4 2 - black 3 PE - green/yellow 4 - black 1 5 - black 2 6 - nc	Fixed: -40°C ... 90°C
C02 servo	Orange	Shielded, 4 x 1.50 + 2 x 1.5	PUR/TPM	1 - black U 2 - black V 6 - black W 4 - black, (BR1 brake) 5 - white, (BR2 brake)	Flexible: -20°C ... 60°C Fixed: -40°C ... 80°C
C03 servo	Orange	Shielded, 4 x 2.50 + 2 x 1.5	TPU/TPM	PE - green/yellow	Flexible: -20°C ... 70°C Fixed: -50°C ... 80°C

M17 to M58 circular plug-in connectors

Signal/power plug-in connectors, plastic molded

M23, 5+PE-position,
Socket, 630 V, 18 A



C02

Ordering data

Order no.

2 m	1620415
5 m	1620416
10 m	1620417

M23, 5+PE-position,
Socket, 630 V, 26 A



C03

Ordering data

Order no.

2 m	1620396
5 m	1620397
10 m	1620398

M23, 5+PE-position,
Socket, 630 V, 26 A



C03

Ordering data

Order no.

2 m	1620418
5 m	1620419
10 m	1620420

2 m	1620406
5 m	1620407
10 m	1620408

M17 to M58 circular plug-in connectors

Signal/power plug-in connectors, plastic molded

M23 plastic molded power plug-in connectors

- Contact resistance ≤ 0.3 ohms
- Contact material gold-plated CuZn
- Flame-retardant TPU handle material
- Knurl CuZn/Gd-Zn, nickel-plated
- IP67 protection
- Plug head temperature range -40 to +105°C
- Standard contact numbering
- M23 standard thread - SPEEDCON rapid interlock system on request
- Angled version rotatable (only with reinforced device plug-in connector 1620620)

Free end



M23, 4+3+PE-pos., pin



M23, 4+3+PE-pos., socket, 250 V/630 V, 18 A



D02

Ordering data

Order no.

2 m	1620399
5 m	1620400
10 m	1620401

M23, 4+3+PE-pos., socket, 250 V/630 V, 18 A



D02

Ordering data

Order no.

2 m	1620421
5 m	1620422
10 m	1620423

M23, 4+3+PE-pos., socket, 250 V/630 V, 26 A



D03

Ordering data

Order no.

2 m	1620402
5 m	1620404
10 m	1620405

2 m	1620409
5 m	1620410
10 m	1620411

2 m	1620412
5 m	1620413
10 m	1620414

Cable information:

Type	Color	Structure	Sheath/core material	Assignment		Temperature range
D02 servo	Orange	Shielded, 4 x 1.5 + 2 x 2 x 0.75	PUR/TPM	1 - black U 3 - black V 4 - black W PE - green/yellow	A - black 5 (brake) B - black 6 (brake) C - black 7 (motor temp. +) D - black 8 (motor temp. -)	Flexible: -20°C ... 60°C Fixed: -40°C ... 80°C
D03 servo	Orange	Shielded, 4 x 2.5 + 2 x 2 x 0.75	PUR/TPM			Flexible: -20°C ... 60°C Fixed: -40°C ... 80°C

M23, 4+3+PE-pos., socket,
250 V/630 V, 26 A



D03

Ordering data

Order no.

2 m	1620424
5 m	1620425
10 m	1620426

M17 to M58 circular plug-in connectors

Signal/power plug-in connectors, plastic molded

M40 plastic molded power plug-in connectors

- Contact resistance ≤ 0.3 ohms
- Contact material gold-plated CuZn
- Flame-retardant TPU handle material
- Knurl CuZn/Gd-Zn, nickel-plated
- IP67 protection
- Plug head temperature range -40 to +105°C
- Standard contact numbering
- M40 standard thread - SPEEDCON rapid interlock system on request

Free end



M40, 2+3+PE-pos., pin



M40, 4+3+PE-pos., pin



M40, 2+3+PE-pos., socket,
250 V/630 V, 26 A



C03

Ordering data

Order no.

2 m	1619329
5 m	1620309
10 m	1620310

M40, 2+3+PE-pos., socket,
250 V/630 V, 34 A



C04

Ordering data

Order no.

2 m	1620311
5 m	1620313
10 m	1620314

M40, 2+3+PE-pos., socket,
250 V/630 V, 44 A



C05

Ordering data

Order no.

2 m	1620316
5 m	1620317
10 m	1620318

2 m	1620345
5 m	1620346
10 m	1620347

2 m	1620348
5 m	1620349
10 m	1620375

2 m	1620376
5 m	1620377
10 m	1620378

Cable information:

Type	Color	Structure	Sheath/core material	Assignment		Temperature range
C03 Servo	Orange	Shielded, 4 x 2.50 + 2 x 1.5	TPU/TPM	1 - black U 2 - black V 6 - black W PE - green/yellow	4 - black, (BR1 brake) 5 - white, (BR2 brake)	Flexible: -20°C ... 70°C Fixed: -50°C ... 80°C
C04 Servo	Orange	Shielded, 4 x 4.00 + 2 x 1.5	TPU/TPM			Flexible: -20°C ... 70°C Fixed: -50°C ... 80°C
C05 Servo	Orange	Shielded, 4 x 6.00 + 2 x 1.5	PUR/TPE			Flexible: -40°C ... 80°C Fixed: -50°C ... 90°C
C06 Servo	Orange	Shielded, 4 x 10.0 + 2 x 1.5	TPU/TPM			Flexible: -20°C ... 70°C Fixed: -50°C ... 80°C
D03 Servo	Orange	Shielded, 4 x 2.5 + 2 x 2 x 0.75	PUR/TPM	1 - black U 3 - black V 4 - black W PE - green/yellow	A - black 5 (brake) B - black 6 (brake) C - black 7 (motor temp. +) D - black 8 (motor temp. -)	Flexible: -20°C ... 60°C Fixed: -40°C ... 80°C
D04 Servo	Orange	Shielded, 4 x 4.0 + 2 x 1.5 + 2 x 1.0	PUR/TPM			Flexible: -30°C ... 80°C Fixed: -45°C ... 80°C
D05 Servo	Orange	Shielded, 4 x 6.0 + 2 x 1.5 + 2 x 1.0	PUR/TPM			Flexible: -30°C ... 60°C Fixed: -30°C ... 80°C
D06 Servo	Orange	Shielded, 4 x 10 + 2 x 1.5 + 2 x 1.0	PUR/TPM			Flexible: -20°C ... 60°C Fixed: -40°C ... 80°C

M17 to M58 circular plug-in connectors

Signal/power plug-in connectors, plastic molded

M40, 2+3+PE-pos., socket,
250 V/630 V, 61 A



C06

Ordering data

Order no.

2 m 1620319
5 m 1620320
10 m 1620321

M40, 4+3+PE-pos., socket,
250 V/630 V, 26 A



D03

Ordering data

Order no.

2 m 1620322
5 m 1620323
10 m 1620324

M40, 4+3+PE-pos., socket,
250 V/630 V, 34 A



D04

Ordering data

Order no.

2 m 1620325
5 m 1620337
10 m 1620338

M40, 4+3+PE-pos., socket,
250 V/630 V, 44 A



D05

Ordering data

Order no.

2 m 1620339
5 m 1620340
10 m 1620341

M40, 4+3+PE-pos., socket,
250 V/630 V, 61 A



D06

Ordering data

Order no.

2 m 1620342
5 m 1620343
10 m 1620344

2 m 1620379
5 m 1620380
10 m 1620381

2 m 1620382
5 m 1620383
10 m 1620384

2 m 1620385
5 m 1620386
10 m 1620387

2 m 1620390
5 m 1620391
10 m 1620392

2 m 1620393
5 m 1620394
10 m 1620395

M17 to M58 circular plug-in connectors

Tools and accessories

Tools and accessories
for M23 signal plug-in connectors

For RC crimp contacts, RC-Z2130 and RC-Z2514 crimping pliers are used for rolled or turned crimp contacts.

RC-Z2514 crimping pliers with 4-arbor pressing are suitable for crimping turned RC contacts. Detailed operating instructions are included in the packaging.



Crimping tools for rolled/turned contacts



Contact insertion/contact removal tool

Description	Ordering data			Ordering data		
	Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.
Crimping pliers for rolled RC crimp contacts Ø 1 mm	RC-Z2130	1604267	1			
Litz wire cross section of 0.08 ... 0.56 mm²						
Crimping pliers for turned RC crimp contacts Ø 1 mm / Ø 1.5 mm / Ø 2 mm	RC-Z2514	1614590	1			
Litz wire cross section of 0.08 ... 2.5 mm²						
Insertion and contact removal tool for RC crimp contacts						
Socket/plug Ø 1 mm				RC-Z2494	1614123	1
Socket/plug Ø 1.5 mm				RC-Z2274	1604409	1
Socket/plug Ø 2 mm				RC-Z2490	1611803	1

M17 to M58 circular plug-in connectors

Tools and accessories

Crimping tools for punched-rolled C-HC crimp contacts

The manual crimping pliers are suitable for single processing. For processing taped products, a bench-mounted electric crimping device with integrated feed mechanism is available.

- The SF-Z0041 adapter enables tools for the manual crimping pliers for single processing to be used with the electric crimping device.



Manual crimping tools
for punched-rolled C-HC crimp contacts



Electrical crimping device
for punched-rolled C-HC crimp contacts

	Ordering data			Ordering data		
Description	Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.
Manual crimping pliers , basic tool for individual processing						
for C-HC crimp contacts	SF-Z0029	1607458	1			
Tool head for crimping pliers SF-Z0029 , for C-HC crimp contacts						
Contacts Ø 2 mm	SF-Z0030	1607459	1			
Contacts Ø 1 mm	SF-Z0031	1607461	1			
Electric crimping device , for processing taped products						
for C-HC crimp contacts				SF-Z0032	1607462	1
Tool head for electrical crimping device SF-Z0032 , for C-HC crimp contacts, processing for taped products						
Contacts Ø 2.0 mm / connection 1.0 mm²				SF-Z0033	1607463	1
Contacts Ø 2.0 mm / connection 1.5 mm²				SF-Z0047	1614689	1
Contacts Ø 2.0 mm / connection 2.5 mm²				SF-Z0035	1607465	1
Contacts Ø 1.0 mm / connection 0.08 ... 0.2 mm²				SF-Z0039	1607470	1
Contacts Ø 1.0 mm / connection 0.2 ... 0.56 mm²				SF-Z0040	1607471	1
Media hub for electrical crimping device SF-Z0032 for accommodating rolls up to Ø 60 cm						
				SF-Z0052	1615413	1
Adapter for electrical crimping device SF-Z0032 , for accommodating tool heads for single processing						
				SF-Z0041	1607472	1

Crimping tools for turned contacts

The crimping pliers are suitable for crimping turned contacts with Ø 0.6 mm, Ø 1 mm, Ø 2 mm, and Ø 3.6 mm (excl. M23 signal plug-in connectors). For large litz wire cross sections, a pneumatic crimping tool is available.

Notes:

For crimping tools for M23 signal plug-in connectors, see page 404



Manual crimping pliers



Crimping tool, pneumatic

Ordering data		Ordering data		
Description	Litz wire cross section [mm²]	Type	Order No.	Pcs. / Pkt.
Manual crimping pliers with digital display for turned crimp contacts with Ø 1 mm, Ø 2 mm, Ø 3.6 mm	0.06 ... 6	SF-Z0025	1607452	1
Positioners for crimping the SF-6FS2000 / SF-6DP2000 contacts with a connection cross section of 1.5 mm²		SF-Z0042	1613666	1
Manual crimping pliers with digital display for turned crimp contacts with Ø 2 mm, Ø 3.6 mm	1.5 ... 10	SF-Z0026	1607454	1
Manual crimping pliers with digital display for turned crimp contacts with Ø 0.6 mm, Ø 1 mm, Ø 2 mm	0.06 ... 2.5	SF-Z0054	1615585	1
Crimping tool, pneumatic for turned crimp contacts with Ø 3.6 mm	6.0 ... 16			
Crimp head for crimping tool, pneumatic				
Positioner for crimp head SF-Z0003, for device plug-in connectors				
Positioner for crimp head SF-Z0003, for cable and coupler plug-in connectors				
	"D" marking			
	"F" marking			
		SF-Z0014	1607446	1
		SF-Z0003	1605657	1
		SF-Z0011	1605675	1
		SF-Z0013	1605681	1

M17 to M58 circular plug-in connectors

Tools and accessories

Crimping tools for turned contacts for M58 power plug-in connectors

For turned crimp contacts with Ø 1.6 mm for M58 power plug-in connectors, SF-Z0025 manual crimping pliers are used. For user-friendly crimping of contacts with Ø 10 mm, the SL-Z0007 electric crimping tool is available.

Crimping stamps for processing contacts with Ø 10 mm are used in pairs. The stamps are tailored to the connection cross sections and marked.



Electro-hydraulic crimping device



Manual crimping pliers

		Ordering data			Ordering data		
Description	Connection cross section [mm²]	Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.
Electro-hydraulic crimping device incl. charger and rechargeable battery , for Litz wire cross section of 10 ... 50 mm² (power and PE contacts Ø 10 mm)		SL-Z0007	1613484	1			
Crimping stamp for crimping device SL-Z0007	10	SL-Z0011	1613488	1			
Crimping stamp for crimping device SL-Z0007	16	SL-Z0012	1613489	1			
Crimping stamp for crimping device SL-Z0007	25	SL-Z0013	1613490	1			
Crimping stamp for crimping device SL-Z0007	35	SL-Z0014	1613491	1			
Crimping stamp for crimping device SL-Z0007	50	SL-Z0015	1613492	1			
Crimping tool with digital display	0.06 ... 6				SF-Z0025	1607452	1
Accessories for electro-hydraulic crimping device SL-Z0007							
	Replacement battery	SL-Z0008	1613485	1			
	Table bracket incl. foot actuation switch	SL-Z0010	1613487	1			

Notes:

The manual crimping pliers SF-Z0025 with digital display are also suitable for crimping turned crimp contacts ST / SF / SM.

Special wrench

The torque screwdriver is specially adapted to the M23 circular plug-in connectors and simplifies the process of tightening and loosening the knurled nut safely even in places where space is restricted.

The tool consists of a hook wrench as well as a torque screwdriver with a fixed torque of 2.5 Nm.



Torque screwdriver for M23 plug-in connectors with knurled nuts



Special wrench for screwing the adapter

Ordering data		Ordering data		
Description	Wrench size [mm]	Type	Order No.	Pcs. / Pkt.
Torque screwdriver incl. hook wrench				
For M23 plug-in connectors with knurled nuts		SF-Z0028	1607456	1
Replacement hook wrench for torque screwdriver				
		SF-Z0027	1607455	1
Special wrench for cable/coupler plug-in connectors for screwing the adapter. Connection dimensions for torque wrench: 8.9 mm x 11.9 mm				
For M17 plug-in connectors, WAF 19		ST-Z0012	1613667	1
For M23 plug-in connectors, WAF 24		RF-Z0007	1614347	1
For M40 plug-in connectors, WAF 41		SM-Z0012	1614349	1
For M58 plug-in connectors, WAF 55		SL-Z0016	1614348	1

M17 to M58 circular plug-in connectors

Tools and accessories

Contact removal tools, square mounting flange

The removal tool is used for contact carriers which are snapped into the housing without rear support. They are removed from the plug-in side using the removal tool.

The square mounting flange is used for cable and coupler plug-in connectors. In this way, the product range is easily extended to include plug-in connectors as panel feed-throughs.



Contact removal tool
for snap-in contact carriers



Square mounting flange for cable/coupler
plug-in connector for wall mounting

			Ordering data			Ordering data		
Description	Wall mounting	Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.	
Contact removal tool for contact carriers, device plug-in connectors								
	For M17 signal/power plug-in connectors	ST-Z0001	1607770	1				
	For M23 feedback plug-in connectors	RF-Z0001	1607904	1				
	For M23 signal plug-in connectors	CA-Z0001	1620699	1				
Square mounting flange, metal, with O-ring seal , for M17 (excl. M17 Compact) cable and coupler plug-in connectors for wall mounting								
	4 x Ø 2.7 mm 4 x M3				ST-Z0002 ST-Z0003	1607771 1607772	1 1	
Square mounting flange, metal, without seal , for M17 (excl. M17 Compact) cable and coupler plug-in connectors for wall mounting								
	4 x Ø 2.7 mm 4 x M3				ST-Z0004 ST-Z0005	1607773 1607775	1 1	
Square mounting flange, metal, with O-ring seal , for M23 feedback, cable, and coupler plug-in connectors for wall mounting								
	4 x M3				RF-Z0003	1607905	1	
Square mounting flange, metal, with O-ring seal , for M58 cable and coupler plug-in connectors for wall mounting								
	4 x Ø 4.3 mm				SM-Z0003	1607935	1	
Square mounting flange, metal, without seal , for M58 cable and coupler plug-in connectors for wall mounting								
	4 x Ø 4.3 mm				SM-Z0004	1607937	1	

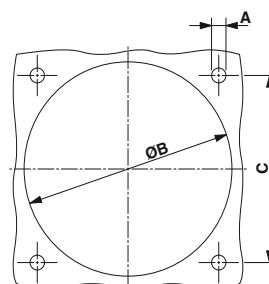
Installation dimensions for square mounting flanges

Type	Installation dimensions			Flange dimensions					
	A	B	C	D	E	F	G	H	J
ST-Z0002 ST-Z0003 ST-Z0004 ST-Z0005	4 x M2.5/Ø 3.2	Ø 22.9 +0.2	□ 22.6 ±0.1	Ø 21.6	□ 22.6 ±0.1	4 x M3/Ø 2.7	M2.5	□ 28.0 ±0.1	5
RF-Z0003	4 x Ø 3.2	Ø 27.9 ±0.1	□ 28.3 ±0.1	Ø 26.2	□ 28.3 ±0.1	4 x M3	M3	□ 35.0	6
SM-Z0003 SM-Z0004	4 x M4/Ø 4.2	Ø 46.1 ±0.1	□ 42.4 ±0.1	Ø 45.0	□ 42.4 ±0.1	4 x Ø 4.3	M3	□ 55.0 ±0.1	5.5

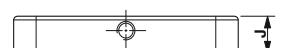
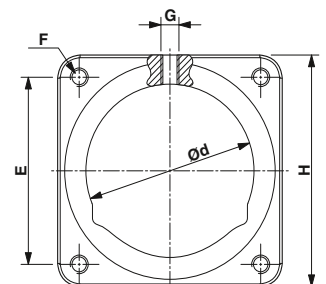
Note:

For insulating wall mounting, plastic mounting flanges are available on request.

Installation dimensions



Flange dimensions



M17 to M58 circular plug-in connectors

Tools and accessories

Color rings

The color rings are used for individually marking the plug-in connectors



Color rings for marking plug-in connectors with cable entry



Color rings for marking device plug-in connectors

		Ordering data			Ordering data		
Description	Color	Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.
Color rings for M17 plug-in connectors, 50 pcs. in set							
	Green	ST-Z0016	1617993	50	ST-Z0019	1620621	50
	Orange	ST-Z0017	1618049	50	ST-Z0020	1620622	50
	Black	ST-Z0018	1618050	50	ST-Z0021	1620623	50
Color rings for M23 signal plug-in connectors, 50 pcs. in set							
	Green	RF-Z0014	1620588	50			
	Orange	RF-Z0015	1620592	50			
	Black	RF-Z0016	1620593	50			
Color rings for M23 signal device plug-in connectors, front mounting, Pg13.5 and M20 fastening thread/rear mounting, central fastening thread, 50 pcs. in set							
	Green				CA-Z0110	1620700	50
	Orange				CA-Z0111	1620701	50
	Black				CA-Z0112	1620702	50
Color rings for M23 signal device plug-in connectors, front mounting, flange dimensions: 25 mm x 25 mm, 50 pcs. in set							
	Green				CA-Z0120	1620704	50
	Orange				CA-Z0121	1620705	50
	Black				CA-Z0122	1620706	50
Color rings for M23 feedback plug-in connectors, 50 pcs. in set							
	Green	RF-Z0014	1620588	50	RF-Z0017	1620624	50
	Orange	RF-Z0015	1620592	50	RF-Z0018	1620625	50
	Black	RF-Z0016	1620593	50	RF-Z0019	1620626	50
Color rings for M23 power plug-in connectors, 50 pcs. in set							
	Green	SF-Z0064	1620585	50	RF-Z0017	1620624	50
	Orange	SF-Z0065	1620586	50	RF-Z0018	1620625	50
	Black	SF-Z0066	1620587	50	RF-Z0019	1620626	50
Color rings for M40 plug-in connectors, 50 pcs. in set							
	Green	SM-Z0025	1620558	50	SM-Z0028	1620627	50
	Orange	SM-Z0026	1620559	50	SM-Z0029	1620628	50
	Black	SM-Z0027	1620560	50	SM-Z0030	1620629	50

M17 to M58 circular plug-in connectors

Tools and accessories

Dust protection caps, plastic

A range of protective caps is available for signal and power plug-in connectors to protect the contact elements in the case of a separate plug connection.

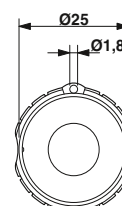
These prevent penetration of dust and humidity.

Plastic protective caps enable IP40 protection to be achieved when locked.



Plastic dust protection caps

		Ordering data		
Description	Degree of protection when locked	Type	Order No.	Pcs. / Pkt.
Plastic dust protection cap, for signal/power plug-in connectors, with M17 external thread	IP40	ST-Z0006	1607776	25
Plastic dust protection cap, for signal/power plug-in connectors, with M17 knurled nut (SPEEDCON and standard)	IP40	ST-Z0007	1607777	25
Plastic dust protection cap with lug for signal/power plug-in connectors with M23 external thread	IP40	SF-Z0019	1607449	25
Plastic dust protection cap, for signal/power plug-in connectors, with M23 knurled nut	IP40	RC-Z2058	1604223	25
Plastic dust protection cap, for signal/power plug-in connectors, with M23 external thread	IP40	RC-Z2059	1604225	25
Plastic dust protection cap, anti-static, black, for signal/power plug-in connectors, with M23 knurled nut	IP40	RC-Z2468	1611796	25
Plastic dust protection cap, anti-static, black, for signal/power plug-in connectors with M23 external thread	IP40	RC-Z2469	1611797	25
Plastic dust protection cap for power plug-in connectors with M40 external thread	IP40	SM-Z0001	1605866	25
Plastic dust protection cap for power plug-in connectors with M58 external thread	IP40	SL-Z0005	1607926	25



SF-Z0019, eye for fixing rope

Dust protection caps, metal

Metal protective caps are available for applications that require a higher degree of protection. These enable IP67 protection to be achieved when locked.

The wire is fixed to the housing panel and prevents the metal protective caps from being lost.



Metal dust protection caps

		Ordering data		
Description	Degree of protection when locked	Type	Order No.	Pcs. / Pkt.
Metal dust protection cap , for power plug-in connectors with M23 external thread	IP67	SC-Z2319	1605456	10
Metal dust protection cap with steel wire , for power plug-in connectors with M23 external thread	IP67	SC-Z2320	1605457	10
Metal dust protection cap with steel wire , for power plug-in connectors with M23 knurled nut	IP67	SC-Z2322	1605459	10
Metal dust protection cap , for signal plug-in connectors, with M23 external thread	IP67	RC-Z2104	1604260	10
Metal dust protection cap with steel wire , for signal plug-in connectors with M23 external thread	IP67	RC-Z2068	1604236	10
Metal dust protection cap with steel wire , for signal plug-in connectors, with M23 knurled nut	IP67	RC-Z2062	1604228	10

