

Circular connectors

The circular connector range from Phoenix Contact covers the entire scope of industrial applications. From M5 to M58, straight or angled, unshielded or shielded: our extensive portfolio always provides the right connector for your application.

Sensor/actuator connectors

Do you want to wire different cable lengths quickly on site? Our M12 connectors for assembly provide the best connection technology for every application:

- IDC insulation displacement connection
- Push-in connection
- Crimp connection
- Pierce connection
- Screw connection
- Solder connection

Shielded connectors for free assembly are available for more stringent requirements.

Sensor/actuator device connectors

In industrial applications, a wide range of requirements are placed on the sensor/actuator cabling. The products from Phoenix Contact are just as varied. You'll find the right device connector – whether in M5, M8 or M12 format, and for front or rear mounting. Customer-specific developments enable optimum adaptation to your individual device concept.

Signal, feedback, hybrid, and power connectors

The product portfolio for M17 to M58 connectors covers all common applications in industrial environments for signal, hybrid, and power plug-in connections up to 630 V/150 A. This also includes requirements relating to tightness of seal, vibration resistance, and shielding against EMI. A complete choice of plastic-molded connectors rounds off the circular connector range.

 Your web code: **#0368**

Sensor/actuator connectors

M8 connectors	16
M12 connectors	19
Valve connectors	28

Sensor/actuator device connectors

M5 device connectors	32
M8 device connectors	33
M12 device connectors	35
Accessories	54

Signal connectors

M17 signal connectors	60
M23 PRO series signal connectors	72
M23 signal connectors	80

Feedback connectors

M23 feedback connectors	106
-------------------------	-----

Hybrid connectors

M23 hybrid connectors	114
M40 hybrid connectors	122

Power connectors

M17 power connectors	130
M23 PRO series power connectors	142
M23 power connectors	150
M40 power connectors	162
M58 power connectors	170

Tools and accessories	176
-----------------------	-----

Circular connectors

M8 sensor/actuator connectors

Insulation displacement connection



Connection cross section:
0.08 mm² ... 0.25 mm²,
3 and 4-pos.



Connection cross section:
0.25 mm² ... 0.5 mm²,
3 and 4-pos.



Technical data

3-pos. 4-pos.

General data	
M8 circular connector in accordance with:	IEC 61076-2-104
Degree of pollution	3
Degree of protection	IP65 / IP67
Connection method	Insulation displacement connection
Cable diameter	2.5 mm ... 5 mm ±0.2 mm
Connection cross section	0.08 mm ² ... 0.25 mm ²
Electrical data	
Rated voltage	48 V AC / 60 V DC
Rated current	4 A
Insulation resistance	≥ 100 MΩ
Material data	
Material contact/contact surface	CuSn / Ni/Au
Contact carrier material	TPU GF
Flammability rating in accordance with UL 94	HB
Temperature data	
Male connector/female connector	-25 ... 80

Ordering data

Description	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
	3-pos.		4-pos.	
Connector, color-coded and numbered connection area				
Female, straight	1441040	1	1441053	1
Male, straight	1441008	1	1441011	1



Technical data

3-pos. 4-pos.

General data	
M8 circular connector in accordance with:	IEC 61076-2-104
Degree of pollution	3
Degree of protection	IP65 / IP67
Connection method	Insulation displacement connection
Cable diameter	2.5 mm ... 5 mm ±0.2 mm
Connection cross section	0.25 mm ² ... 0.5 mm ²
Electrical data	
Rated voltage	48 V AC / 60 V DC
Rated current	4 A
Insulation resistance	≥ 100 MΩ
Material data	
Material contact/contact surface	CuSn / Ni/Au
Contact carrier material	TPU GF
Flammability rating in accordance with UL 94	HB
Temperature data	
Male connector/female connector	-25 ... 80

Ordering data

Description	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
	3-pos.		4-pos.	
Connector, color-coded and numbered connection area				
Female, straight	1441066	1	1441079	1
Male, straight	1441024	1	1441037	1

Screw connection

Unshielded,
3-, 4-pos.Shielded,
3-, 4-pos.

Technical data	
3-pos.	4-pos.
IEC 61076-2-104	
3	
IP67	
Screw connection	
3.5 mm ... 5 mm	
0.14 mm² ... 0.5 mm²	
48 V AC / 60 V DC	30 V AC / 30 V DC
4 A	
≥ 100 MΩ	
CuZn / Au	
PA	
HB	
-40 ... 85	

Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
3-pos.		4-pos.	
1506888	1	1506891	1
1501252	1	1501265	1
1407582	1	1407584	1
1407583	1	1407585	1

Accessories			
Pressure screw and seal, for cable diameters:			
2.5 mm ... 3.5 mm	SACC-M 8-SET/2,2-3,5	1436945	5



Technical data	
3-pos.	4-pos.
IEC 61076-2-104	
3	
IP67	
Screw connection	
3.5 mm ... 5.5 mm	
0.14 mm² ... 0.5 mm²	
48 V AC / 60 V DC	30 V AC / 30 V DC
4 A	
≥ 100 MΩ	
CuZn / Au	
PA	
HB	
-40 ... 85	

Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
3-pos.		4-pos.	
1542907	1	1542910	1
1542884	1	1542897	1

Accessories			
Pressure screw and seal, for cable diameters:			
2.5 mm ... 3.5 mm	SACC-M 8-SET/2,2-3,5	1436945	5

Circular connectors

M8 sensor/actuator connectors

Solder connection



Unshielded,
3-, 4-pos.



Shielded,
3-, 4-pos.



Technical data	
3-pos.	4-pos.
IEC 61076-2-104	
3	
IP67	
Solder connection	
3.5 mm ... 5 mm	
0.08 mm² ... 0.25 mm²	
48 V AC / 60 V DC	30 V AC / 30 V DC
4 A	
≥ 100 MΩ	
CuZn / Au	
PA	
HB	
-40 ... 85	

Ordering data			
Order No.		Pcs./Pkt.	
3-pos.		4-pos.	
1529399	1	1513444	1
1699902	1	1554209	1
1681172	1	1681185	1
1681156	1	1681169	1

Accessories		
Pressure screw and seal, for cable diameters:		
2.5 mm ... 3.5 mm	SACC-M 8-SET/2,2-3,5	1436945



Technical data	
3-pos.	4-pos.
IEC 61076-2-104	
3	
IP67	
Solder connection	
3.5 mm ... 5 mm	
0.08 mm² ... 0.25 mm²	
48 V AC / 60 V DC	30 V AC / 30 V DC
4 A	
≥ 100 MΩ	
CuZn / Au	
PA	
HB	
-40 ... 85	

Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
3-pos.		4-pos.	
1436479	1	1436482	1
1436453	1	1436466	1
1506927	1	1506930	1
1506901	1	1506914	1

Accessories		
Pressure screw and seal, for cable diameters:		
2.5 mm ... 3.5 mm	SACC-M 8-SET/2,2-3,5	1436945

Push-in connection

Notes:

M12 connectors for assembly for networks and fieldbuses can be found in the data connectors and cables section from page 337



Unshielded,
4-, 5-pos.



Shielded,
4-, 5-pos.



Technical data

	4-pos.	5-pos.
General data	IEC 61076-2-101	
M12 circular connector in accordance with:	3	
Degree of pollution	IP65 / IP67	
Degree of protection	Push-in connection	
Connection method	4 mm ... 8 mm	
Cable diameter	0.14 mm ² ... 0.75 mm ²	
Connection cross section [mm ²]		
Electrical data		
Rated voltage	250 V AC / 250 V DC	48 V AC / 60 V DC
Rated current	4 A	
Insulation resistance	≥ 100 MΩ	
Material data		
Material contact/contact surface	CuSn / Ni/Au	
Contact carrier material	PA 6.6	
Flammability rating in accordance with UL 94	V0	
Temperature data		
Male connector/female connector	-40 ... 85	

Ordering data

Description	Coding	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
		4-pos.		5-pos.	
Connector, with metal knurl, color-coded and numbered connection area					
Female, angled	A - standard	1424656	1	1424653	1
Male, angled	A - standard	1424654	1	1424651	1
Female, straight	A - standard	1424655	1	1424652	1
Male, straight	A - standard	1424657	1	1424649	1
Connector, with plastic knurl, color-coded and numbered connection area					
Female, angled	A - standard	1424694	1	1424690	1
Male, angled	A - standard	1424692	1	1424688	1
Female, straight	A - standard	1424693	1	1424689	1
Male, straight	A - standard	1424691	1	1424686	1
Connector, with metal knurl, color-coded and numbered connection area					
Female, angled	B - inverse				1424665 1
Male, angled	B - inverse				1424663 1
Female, straight	B - inverse				1424664 1
Male, straight	B - inverse				1424662 1



Technical data

	4-pos.	5-pos.
General data	IEC 61076-2-101	
M12 circular connector in accordance with:	3	
Degree of pollution	IP65 / IP67	
Degree of protection	Push-in connection	
Connection method	4 mm ... 8 mm	
Cable diameter	0.14 mm ² ... 0.75 mm ²	
Connection cross section [mm ²]		
Electrical data		
Rated voltage	48 V AC / 60 V DC	
Rated current	4 A	
Insulation resistance	≥ 100 MΩ	
Material data		
Material contact/contact surface	CuSn / Ni/Au	
Contact carrier material	PA 6.6	
Flammability rating in accordance with UL 94	V0	
Temperature data		
Male connector/female connector	-40 ... 85	

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
4-pos.		5-pos.	
1424669	1	1424661	1
1424667	1	1424659	1
1424668	1	1424660	1
1424666	1	1424658	1

Notes:
M12 connectors for assembly for networks and fieldbuses can be found in the data connectors and cables section from page 337



Unshielded,
4-pos.



		Technical data			
		4-pos.		4-pos.	
General data					
M12 circular connector in accordance with:		in accordance with IEC 61076-2-101			
Degree of pollution		3			
Degree of protection		IP65 / IP67			
Connection method		Insulation displacement connection			
Cable diameter		3.5 mm ... 6 mm		4 mm ... 8 mm	
Connection cross section [mm²]		0.14 mm² ... 0.34 mm²		0.34 mm² ... 0.75 mm²	
Electrical data					
Rated voltage		125 V AC / 125 V DC		250 V AC / 250 V DC	
Rated current		4 A			
Insulation resistance		≥ 100 MΩ			
Material data					
Material contact/contact surface		CuSn / Ni/Au			
Contact carrier material		TPU			
Flammability rating in accordance with UL 94		V0			
Temperature data					
Male connector/female connector		-25 ... 80			

Insulation displacement connection



Shielded,
4-, 5-, 8-pos.



Shielded,
4-, 5-, 8-pos.

EAC

Technical data		
4-pos.	5-pos.	8-pos.
in accordance with IEC 61076-2-101		
3		
IP65 / IP67		
Insulation displacement connection		
0.14 mm ² ... 0.75 mm ²		0.14 mm ² ... 0.5 mm ²
250 V AC / 250 V DC	48 V AC / 60 V DC	30 V AC / 30 V DC
4 A		2 A
≥ 100 MΩ		
CuSn / Ni/Au		
PA 6.6		
V0		
-40 ... 85		

Ordering data					
Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
4-pos.		5-pos.		8-pos.	

1413994	1	1413992	1	1414611	1
1413993	1	1413991	1	1414610	1

EAC

Technical data		
4-pos.	5-pos.	8-pos.
	-	
	3	
IP65 / IP67		
Insulation displacement connection		
0.14 mm ² ... 0.75 mm ²		0.14 mm ² ... 0.5 mm ²
250 V AC / 250 V DC	48 V AC / 60 V DC	30 V AC / 30 V DC
4 A		2 A
≥ 100 MΩ		
	CuSn / Ni/Au	
	PA 6.6	
	V0	
	-40 ... 85	

Ordering data					
Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
4-pos.		5-pos.		8-pos.	

1414418	1	1414417	1	1414612	1
---------	---	---------	---	---------	---

General data	
M12 circular connector in accordance with:	
Degree of pollution	
Degree of protection	
Connection method	
Connection cross section [mm ²]	
Electrical data	
Rated voltage	
Rated current	
Insulation resistance	
Material data	
Material contact/contact surface	
Contact carrier material	
Flammability rating in accordance with UL 94	
Temperature data	
Male connector/female connector	[°C]

Description	Coding
-------------	--------

Connector, shielded, with metal knurl, color-coded and numbered connection area,
cable diameter: 5 mm ... 9.7 mm

Female, straight	A - standard
Male, straight	A - standard

Cable connector, shielded, color-coded and numbered connection area,
cable diameter: 5 mm ... 9.7 mm

Circular connectors

M12 sensor/actuator connectors

Screw connection

Notes:

M12 connectors for assembly for networks and fieldbuses can be found in the data connectors and cables section from page 337



Plastic knurl,
4, 5-pos.



Metal knurl,
4, 5, 8-pos.



Technical data

	4-pos.	5-pos.
General data	IEC 61076-2-101	
M12 circular connector in accordance with:	3	
Degree of pollution	IP67	
Degree of protection	Screw connection	
Connection method	0.25 mm ² ... 0.75 mm ²	
Connection cross section [mm ²]	250 V AC / 250 V DC	
Electrical data	48 V AC / 60 V DC	
Rated voltage	4 A	
Rated current	≥ 100 MΩ	
Insulation resistance	CuZn / CuSnZn	
Material data	PA	
Material contact/contact surface	HB	
Contact carrier material	Flammability rating in accordance with UL 94	
Temperature data	-40 ... 85	
Male connector/female connector	[°C]	

Ordering data

Description	Coding
-------------	--------

**Connector, with Pg7 screw connection,
cable diameter: 4 mm ... 6 mm**

Female, angled	A - standard	1681130	1	1662308	1
Male, angled	A - standard	1681091	1	1662269	1
Female, straight	A - standard	1681114	1	1662298	1
Male, straight	A - standard	1681088	1	1662256	1

**Connector, with Pg9 screw connection,
cable diameter: 6 mm ... 8 mm**

Female, angled	A - standard	1500790	1
Male, angled	A - standard	1513431	1
Female, straight	A - standard	1500787	1
Male, straight	A - standard	1500774	1

**Connector, with Pg11 screw connection,
cable diameter: 8 mm ... 10 mm**

Female, straight	A - standard	1410665	1
Male, straight	A - standard	1410666	1

**Power connector, with Pg11 screw connection,
cable diameter: 8 mm ... 10 mm, rated current:
up to 8 A (5th pos. max. 2 A) with 1.5 mm² wires/litz wires**

Female, angled	A - standard	1408991	1	1408993	1
Male, angled	A - standard	1408990	1	1408992	1
Female, straight	A - standard	1404416	1	1404418	1
Male, straight	A - standard	1404415	1	1404417	1

Accessories

**Pressure screw and seal, for connectors with
Pg7 screw connection, for cable diameters:**

2.5 mm ... 3.5 mm

SACC-M12-SET/2,5-3,5

1436505

5



Technical data

	4-pos.	5-pos.	8-pos.
General data	IEC 61076-2-101		
M12 circular connector in accordance with:	3		
Degree of pollution	IP67		
Degree of protection	Screw connection		
Connection method	0.25 mm ² ... 0.75 mm ²		
Connection cross section [mm ²]	250 V AC / 250 V DC		
Electrical data	48 V AC / 60 V DC		
Rated voltage	30 V AC / 30 V DC		
Rated current	4 A		
Insulation resistance	≥ 100 MΩ		
Material data	CuZn / CuSnZn		
Material contact/contact surface	PA		
Contact carrier material	HB		
Flammability rating in accordance with UL 94	CuZn / Au		
Temperature data	-40 ... 85		
Male connector/female connector	[°C]		

Ordering data

Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
-----------	---------------	-----------	---------------	-----------	---------------

4-pos.	1681143	1	1662984	1	
5-pos.	1681101	1	1663129	1	
	1681127	1	1662968	1	
	1662528	1	1663116	1	
			1681499	1	
			1681473	1	
	1696439	1	1681486	1	1513347
	1523230	1	1681460	1	1513334

Accessories

SACC-M12-SET/2,5-3,5	1436505	5
----------------------	---------	---

Screw connection

Notes:

M12 connectors for assembly for networks and fieldbuses can be found in the data connectors and cables section from page 337



Metal knurl, 4, 5-pos.,
with SKINTOP® screw connection



Stainless steel knurl,
4, 5-pos.

ERC

Technical data

	4-pos.	5-pos.
General data	IEC 61076-2-101	
M12 circular connector in accordance with:	3	
Degree of pollution	IP67	
Degree of protection	Screw connection	
Connection method	0.25 mm ² ... 0.75 mm ²	
Connection cross section [mm ²]		
Electrical data		
Rated voltage	250 V AC / 250 V DC	48 V AC / 60 V DC
Rated current	4 A	
Insulation resistance	≥ 100 MΩ	
Material data		
Material contact/contact surface	CuZn / CuSnZn	
Contact carrier material	PA	
Flammability rating in accordance with UL 94	HB	
Temperature data		
Male connector/female connector	-20 ... 80	

Ordering data

Description	Coding	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
		4-pos.		5-pos.	
Connector, with Pg7 screw connection, cable diameter: 4 mm ... 6 mm					
Female, angled	A - standard				
Male, angled	A - standard				
Female, straight	A - standard	1430381	1	1559000	1
Male, straight	A - standard	1556870	1	1456466	1
Connector, with Pg9 screw connection, cable diameter: 6 mm ... 8 mm					
Female, angled	A - standard			1556812	1
Male, angled	A - standard			1561742	1
Female, straight	A - standard			1556838	1
Male, straight	A - standard			1556825	1

Pressure screw and seal, for connectors with Pg7 screw connection, for cable diameters:

2.5 mm ... 3.5 mm

UL 94 ERC

Technical data

	4-pos.	5-pos.
General data	IEC 61076-2-101	
M12 circular connector in accordance with:	3	
Degree of pollution	IP65/IP67/IP69K	
Degree of protection	Screw connection	
Connection method	0.25 mm ² ... 0.75 mm ²	
Connection cross section [mm ²]		
Electrical data		
Rated voltage	250 V AC / 250 V DC	48 V AC / 60 V DC
Rated current	4 A	
Insulation resistance	≥ 100 MΩ	
Material data		
Material contact/contact surface	CuZn / Au	
Contact carrier material	PA	
Flammability rating in accordance with UL 94	-	
Temperature data		
Male connector/female connector	-40 ... 85	

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
4-pos.		5-pos.	
1553284	1	1553297	1
1553200	1	1553213	1
1553242	1	1553255	1
1553161	1	1553187	1
1553226	1	1553307	1
1553268	1	1553239	1
1553174	1	1553271	1
		1553190	1

Accessories

--	--	--

Accessories

SACC-M12-SET/2,5-3,5	1436505	5
----------------------	---------	---

Circular connectors

M12 sensor/actuator connectors

Screw connection, shielded

Notes:

M12 connectors for assembly for networks and fieldbuses can be found in the data connectors and cables section from page 337



**Metal housing,
4-, 5-, 8-pos.**



**Stainless steel housing,
5-pos.**



Technical data

	4-pos.	5-pos.	8-pos.
General data			
M12 circular connector in accordance with:	IEC 61076-2-101		
Degree of pollution	3		
Degree of protection	IP67		
Connection method	Screw connection		
Connection cross section [mm²]	0.25 mm² ... 0.75 mm²		0.25 mm² ... 0.5 mm²
Electrical data			
Rated voltage	48 V AC / 60 V DC		30 V AC / 30 V DC
Rated current	4 A		2 A
Insulation resistance	≥ 100 MΩ		
Material data			
Material contact/contact surface	CuZn / Au		
Contact carrier material	PA		
Flammability rating in accordance with UL 94	HB		
Temperature data			
Male connector/female connector	-40 ... 85		

Ordering data

Description	Coding
-------------	--------

Connector, cable diameter: 4 mm ... 6 mm

Male, angled	A - standard	1694279	1	1693429	1
Female, straight	A - standard	1694295	1	1694305	1
Male, straight	A - standard	1693830	1	1693416	1

Connector, cable diameter: 6 mm ... 8 mm

Female, angled	A - standard			1430433	1
Male, angled	A - standard			1694282	1
Female, straight	A - standard	1515170	1	1694318	1
Male, straight	A - standard	1501540	1	1694266	1

Connector, cable diameter: 6 mm ... 8.5 mm

Female, straight	A - standard			1508365	1
Male, straight	A - standard			1508352	1

Connector, cable diameter: 3 mm ... 5.5 mm

Female, straight	A - standard				
Male, straight	A - standard				

Connector, cable diameter: 5.5 mm ... 8.6 mm

Female, straight	A - standard				
Male, straight	A - standard				



Technical data

	5-pos.
General data	
IEC 61076-2-101	
3	
IP65 / IP67 / IP69K	
Screw connection	
0.25 mm² ... 0.75 mm²	
Electrical data	
48 V AC / 60 V DC	
4 A	
≥ 100 MΩ	
Material data	
CuZn / Au	
PA	
V0	
Temperature data	
-40 ... 85	

Ordering data

Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
-----------	------------	-----------	------------	-----------	------------

Connector, cable diameter: 4 mm ... 6 mm

Male, angled	A - standard	1694279	1	1693429	1
Female, straight	A - standard	1694295	1	1694305	1
Male, straight	A - standard	1693830	1	1693416	1

Connector, cable diameter: 6 mm ... 8 mm

Female, angled	A - standard			1430433	1
Male, angled	A - standard			1694282	1
Female, straight	A - standard	1515170	1	1694318	1
Male, straight	A - standard	1501540	1	1694266	1

Connector, cable diameter: 6 mm ... 8.5 mm

Female, straight	A - standard			1508365	1
Male, straight	A - standard			1508352	1

Connector, cable diameter: 3 mm ... 5.5 mm

Female, straight	A - standard			1440038	1
Male, straight	A - standard			1440012	1

Connector, cable diameter: 5.5 mm ... 8.6 mm

Female, straight	A - standard			1440041	1
Male, straight	A - standard			1440025	1

DUO connectors, screw connection

Notes:

Plastic knurl without wrench flats.

Metal knurl,
4-, 5-pos.Plastic and stainless steel knurl,
5-pos.

Technical data

	4-pos.	5-pos.
General data	IEC 61076-2-101	
M12 circular connector in accordance with:	3	
Degree of pollution	IP67	
Degree of protection	Screw connection	
Connection method	2x 2.1 mm ... 3 mm (when using the seal for small outer cable diameters)	
Cable diameter	2x 4 mm ... 5.2 mm (when using the seal for large outer cable diameters)	
Cable diameter	0.25 mm ² ... 0.75 mm ²	
Connection cross section [mm ²]		
Electrical data		
Rated voltage	250 V AC / 250 V DC	48 V AC / 60 V DC
Rated current	4 A	
Insulation resistance	≥ 100 MΩ	
Material data		
Material contact/contact surface	CuZn / CuSnZn	
Contact carrier material	PA	
Flammability rating in accordance with UL 94	-	
Temperature data		
Male connector/female connector	-40 ... 85	

Ordering data

Description	Coding	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
		4-pos.		5-pos.	
Connector , with metal knurl, for connecting two cables					
Male, straight	A - standard	1507052	1	1662748	1
Connector , with plastic knurl, for connecting two cables					
Female, straight	A - standard				
Male, straight	A - standard				
Male, angled	A - standard				
Connector , with stainless steel knurl, for connecting two cables					
Female, straight	A - standard				
Male, straight	A - standard				



Technical data

	Plastic knurl	Stainless steel knurl
General data	IEC 61076-2-101	
M12 circular connector in accordance with:	3	
Degree of pollution	IP67	
Degree of protection	Screw connection	
Connection method	2x 2.1 mm ... 3 mm (when using the seal for small outer cable diameters)	
Cable diameter	2x 4 mm ... 5.2 mm (when using the seal for large outer cable diameters)	
Cable diameter	0.25 mm ² ... 0.75 mm ²	
Connection cross section [mm ²]		
Electrical data		
Rated voltage	48 V AC / 60 V DC	
Rated current	4 A	
Insulation resistance	≥ 100 MΩ	
Material data		
Material contact/contact surface	CuZn / CuSnZn	CuZn / Au
Contact carrier material	PA	
Flammability rating in accordance with UL 94	-	
Temperature data		
Male connector/female connector	-40 ... 85	

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
Plastic knurl		Stainless steel knurl	
1694596	1		
1662285	1		
1531044	1		
		1403372	1
		1403371	1

Circular connectors

M12 sensor/actuator connectors

Solder and Piercecon® connection



Solder connection,
12-pos.



Piercecon® connection,
12, 17-pos.



		Technical data				Technical data					
		unshielded		shielded		12-pos.		17-pos.			
General data											
M12 circular connector in accordance with:		IEC 61076-2-101				IEC 61076-2-101					
Degree of pollution		3				3					
Degree of protection		IP67				IP67					
Connection method		Solder connection				Piercecon® fast connection					
Cable diameter		6 mm ... 8 mm				5.4 mm ... 8.2 mm					
Connection cross section [mm²]		0.08 mm² ... 0.25 mm²				0.14 mm² ... 0.14 mm²					
Electrical data											
Rated voltage		30 V AC / 30 V DC				30 V AC / 30 V DC					
Rated current		1.5 A (up to 40°C)				1.5 A					
Insulation resistance		> 10 GΩ				≥ 100 MΩ					
Material data											
Material contact/contact surface		CuZn / Au				CuZn / Ni/Au					
Contact carrier material		PA				PA					
Flammability rating in accordance with UL 94		HB				V0					
Temperature data											
Male connector/female connector		[°C]				-25 ... 85					
		-40 ... 85									
		Ordering data				Ordering data					
Description		Coding		Order No.		Pcs./Pkt.		Order No.		Pcs./Pkt.	
		unshielded		shielded		12-pos.		17-pos.			
Connector											
Female, angled		A - standard		1404423		1		1404413		1	
Male, angled		A - standard		1404421		1		1404412		1	
Female, straight		A - standard		1404420		1		1404411		1	
Male, straight		A - standard		1404419		1		1404410		1	
Connector, unshielded, color-coded connection area											
Female, straight		A - standard						1559631		1	
Male, straight		A - standard						1559592		1	
								1559644		1	
								1559602		1	

Crimp connection, shielded

new

PROFI[®]
NET

4-, 5-, 8-pos.

PROFI[®]
NETPush-pull locking,
4-, 5-, 8-pos.

EAC

Technical data		
4-pos.	5-pos.	8-pos.
IEC 61076-2-101		IEC 61076-2-109
	M12	
	3	
IP65		IP65 / IP67
Crimp connection		
4.5 mm ... 7.5 mm		6.5 mm ... 10 mm
48 V AC / 60 V DC		
4 A		0.5 A
	≥ 100 Ω	
PA 6.6		
Zinc die-cast, nickel-plated		
V0		
	-40 ... 85	

Ordering data					
Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
4-pos.		5-pos.		8-pos.	
Connector, without contacts, color-coded and numbered contact manager					
Female, angled	D - data	1422849	1		
Male, angled	D - data	1422847	1		
Female, straight	D - data	1422848	1		
Male, straight	D - data	1422846	1		
Connector, without contacts, color-coded and numbered contact manager					
Female, angled	A - standard	1422853	1		
Male, angled	A - standard	1422851	1		
Female, straight	A - standard	1422852	1		
Male, straight	A - standard	1422850	1		

Male, angled	X - data	1422845	1
Male, straight	X - data	1422844	1

Accessories			
CC1,0-TS-0,34F AU	1064041	100	
CC1,0-TS-1,00F AU	1423646	100	
CC1,0-TS-0,34M AU	1064040	100	
CC1,0-TS-1,00M AU	1423645	100	
CC0,6-TS-0,34M AU	1423643	100	
CRIMPFOX-TC MP	1212510	1	

EAC

Technical data		
4-pos.	5-pos.	8-pos.
	-	
	M12 push-pull	
	3	
	IP65 / IP67 / IP68 / IP69K	
	Crimp connection	
	4.5 mm ... 7.5 mm	6.5 mm ... 10 mm
	48 V AC / 60 V DC	
	4 A	0.5 A
	≥ 100 Ω	
	PA 6.6	
	PA 6.6	
	V0	
	-40 ... 85	

Ordering data					
Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
4-pos.		5-pos.		8-pos.	
Connector, without contacts, color-coded and numbered contact manager					
Female, angled	D - data	1021831	1		
Male, angled	D - data	1021830	1		
Connector, without contacts, color-coded and numbered contact manager					
Female, angled	A - standard	1021816	1		
Male, angled	A - standard	1021815	1		

Male, angled	X - data	1021784	1
Male, straight	X - data	1021783	1

Accessories			
CC1,0-TS-0,34M AU	1064040	100	
CC1,0-TS-1,00M AU	1423645	100	
CC0,6-TS-0,34M AU	1423643	100	
CRIMPFOX-TC MP	1212510	1	

Crimp contact, turned, gold-plated	
Female, for A/D-coded, 0.14 mm ² ... 0.34 mm ²	
Female, for A/D-coded, 0.34 mm ² ... 1.0 mm ²	
Male, for A/D-coded, 0.14 mm ² ... 0.34 mm ²	
Male, for A/D-coded, 0.34 mm ² ... 1.0 mm ²	
Male, for X-coded, 0.14 mm ² ... 0.34 mm ²	
Crimping pliers, for turned contacts, universal cross section setting, up to a maximum of 2.5 mm ² , digital display with 0.01 mm increments, unlockable pressure lock, lateral entry, including positioning tool	
for turned contacts, four-mandrel crimping	

Circular connectors

Valve connectors

Valve connectors, type A, screw connection

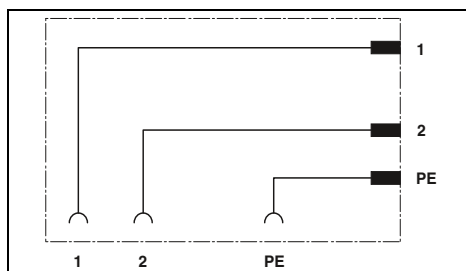


Without protective circuit



Protective circuit: varistor

ERC



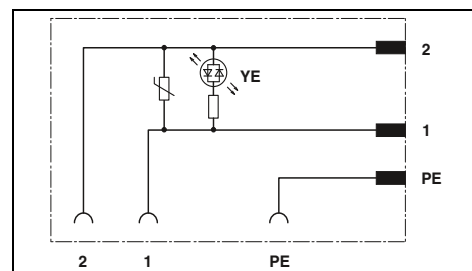
Technical data

General data	
Valve connector in accordance with:	EN 175301-803
Degree of pollution	3
Degree of protection	IP65
Connection method	Screw connection
Electrical data	
Rated current	10 A
Insulation resistance	> 2 GΩ
Material data	
Material contact valve connector	CuZn
Material contact surface valve connector	CuSn
Flammability rating in accordance with UL 94	HB
Temperature data	
Valve connectors	[-25 ... 60 °C]

Ordering data

Description	Type	Order No.	Pcs./Pkt.
Valve connector , without protective circuit, rated voltage: 230 V			
3-pos.	SACC-VB-3CON-M16/A	1452123	1
4-pos.	SACC-VB-4CON-M16/A	1452136	1
Valve connector , with protective circuit, rated voltage:			
24 V			
110 V			
230 V			
Valve connector , 5-pos., type A for pressure switch, 2 LEDs, without protective circuit, M16 cable gland, rated voltage:			
24 V			
Valve connector , with protective circuit, rated voltage: 24 V, cable gland:			
Pg9			
M16			

ERC



Technical data

EN 175301-803
3
IP65
Screw connection
1.5 A
> 2 GΩ
CuZn
CuSn
HB
-25 ... 60

Ordering data

Type	Order No.	Pcs./Pkt.
SACC-VB-3CON-M16/A-1L-SV 24V	1452149	1
SACC-VB-3CON-M16/A-1L-SV 110V	1452152	1
SACC-VB-3CON-M16/A-1L-SV 230V	1452165	1



Protective circuit: varistor and rectifier

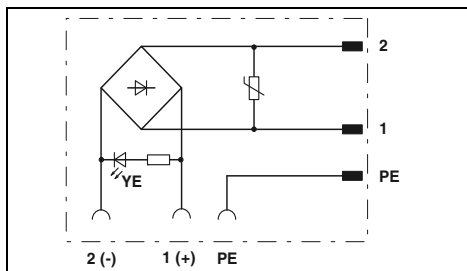


Pressure switch



Protective circuit: Z diode

ERC



Technical data

EN 175301-803
3
IP65
Screw connection

1.5 A
> 2 GΩ

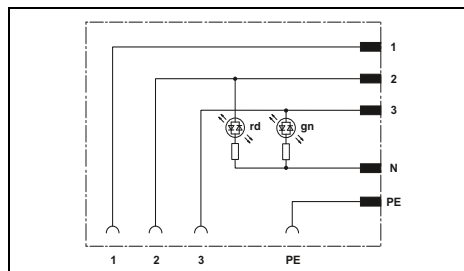
CuZn
CuSn
HB

-25 ... 60

Ordering data

Type	Order No.	Pcs./Pkt.
SACC-VB-3CON-M16/A-GVL 12/24V	1452178	1
SACC-VB-3CON-M16/A-GVL 110V	1452181	1
SACC-VB-3CON-M16/A-GVL 230V	1452194	1

ERC



Technical data

EN 175301-803
3
IP65
Screw connection

1.5 A
> 2 GΩ

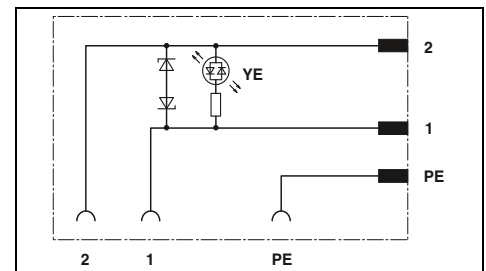
CuZn
CuSn
HB

-25 ... 60

Ordering data

Type	Order No.	Pcs./Pkt.
SACC-VB-5CON-M16/AD-2L 24V	1457908	1

ERC



Technical data

EN 175301-803
3
IP65
Screw connection

4 A
> 2 GΩ

CuSn
Ag
HB

-25 ... 60

Ordering data

Type	Order No.	Pcs./Pkt.
SACC-V-3CON-PG9/A-1L-S	1671137	1
SACC-V-3CON-M16/A-1L-S	1544714	1

Circular connectors

Valve connectors

Valve connectors, types B and BI, screw connection

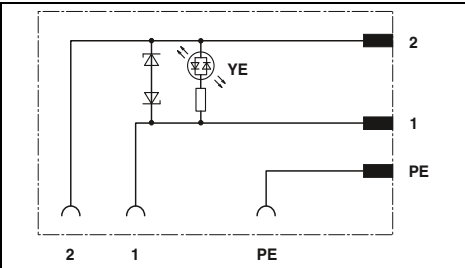


Protective circuit: Z diode

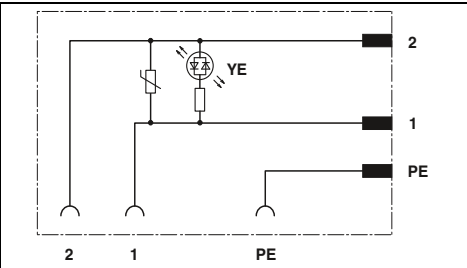


Protective circuit: varistor

ERC



ERC



General data
Valve connector in accordance with:
Degree of pollution
Degree of protection
Connection method
Electrical data
Rated current
Insulation resistance
Material data
Material contact surface valve connector
Material housing valve connector
Flammability rating in accordance with UL 94
Temperature data
Valve connectors

Technical data			
Type B		Type BI	
EN 175301-803		-	
3		3	
IP65		IP65	
Screw connection		Screw connection	
4 A		1.5 A	
> 2 GΩ		> 2 GΩ	
Ag		CuSn	
PA		PA	
HB		HB	
-25 ... 60		-25 ... 60	

Technical data			
Type B		Type BI	
EN 175301-803		-	
3		3	
IP65		IP65	
Screw connection		Screw connection	
1.5 A		1.5 A	
> 2 GΩ		> 2 GΩ	
CuSn		CuSn	
PA		PA	
HB		HB	
-25 ... 60		-25 ... 60	

Description
Valve connector, 3-pos., with protective circuit, cable gland Pg9, rated voltage:
24 V
Valve connector, with protective circuit, yellow LED, rated voltage:
24 V
110 V
230 V

Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
Type B		Type BI	
1671153	1	1671140	1

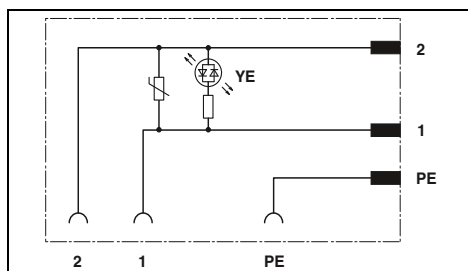
Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
Type B		Type BI	
1452204	1	1452233	1
1452217	1	1452246	1
1452220	1	1452259	1

Valve connectors, type C and CI, screw connection



Protective circuit: varistor

EAC



Technical data

General data	Type C	Type CI
Valve connector in accordance with:	EN 175301-803	-
Degree of pollution	3	
Degree of protection	IP65	
Connection method	Screw connection	
Electrical data		
Rated current	1.5 A	
Insulation resistance	> 2 GΩ	
Material data		
Material contact valve connector	CuZn	
Material contact surface valve connector	CuSn	
Flammability rating in accordance with UL 94	HB	
Temperature data		
Valve connectors	-25 ... 60	

Ordering data

Description	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
	Type C		Type CI	
Valve connector , with protective circuit, yellow LED, rated voltage:				
24 V	1452262	1	1452291	1
110 V	1452275	1	1452301	1
230 V	1452288	1	1452314	1

Circular connectors

M5 sensor/actuator device connectors, front mounting

M5 fastening thread,
with 0.5 m long litz wires

Notes:
Flat nut recommended for housing wall thicknesses < 2.5 mm.



M5,
3-, 4-pos.

ERC

		Technical data			
		3-pos.		4-pos.	
General data					
M5 circular connector in accordance with:		IEC 61076-2-105		IEC 61076-2-105	
Degree of pollution		3		3	
Degree of protection		IP67		IP67	
Connection method		Individual wires		Individual wires	
Electrical data					
Rated voltage		60 V		60 V	
Rated current		1 A		1 A	
Material data					
Material contact/contact surface		CuSn / Au		CuSn / Au	
Contact carrier material		PA 6.6		PA 6.6	
Flammability rating in accordance with UL 94		HB		HB	
Cable type		TPE litz wire		TPE litz wire	
Temperature data					
Male connector/female connector		-25 ... 85		-25 ... 85	
		[°C]			
Ordering data					
Description		Coding			
		Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
		3-pos.		4-pos.	
Device connector					
Female	A - standard	1530605	1	1530618	1
Male	A - standard	1530582	1	1530595	1
Accessories					
Flat nut, with: M5 thread		SACC-E-MU-M 5		1535901	100

M8 sensor/actuator device connectors, front mounting

**M8 fastening thread,
with 0.5 m long litz wires**



**M8,
3-, 4-, 5-pos.**



**M8,
6-, 8-pos.**



Technical data		
3-pos.	4-pos.	5-pos.
General data		
M8 circular connector in accordance with:	IEC 61076-2-104	IEC 61076-2-104
Degree of pollution	3	3
Degree of protection	IP67	IP67
Connection method	Individual wires	Individual wires
Electrical data		
Rated voltage	50 V AC / 60 V DC	50 V AC / 60 V DC
Rated current	4 A	3 A
Material data		
Material contact/contact surface	Cu alloy / Au	Cu alloy / Au
Contact carrier material	PA 6.6	PA 6.6
Flammability rating in accordance with UL 94	HB	HB
Cable type	PVC litz wire	PVC litz wire
Temperature data		
Male connector/female connector	-25 ... 85	-25 ... 85

Ordering data					
Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
3-pos.		4-pos.		5-pos.	
Female	A - standard	1500350	1	1500363	1
Male	A - standard	1500334	1	1500347	1
Female	B - inverse			1424233	1
Male	B - inverse			1424234	1
Flat nut, with:					
M8 thread		1504071	100	1504071	100



Technical data		
6-pos.	8-pos.	
General data		
M8 circular connector in accordance with:	IEC 61076-2-104	IEC 61076-2-104
Degree of pollution	3	3
Degree of protection	IP67	IP67
Connection method	Individual wires	Individual wires
Electrical data		
Rated voltage	30 V AC / 30 V DC	30 V AC / 30 V DC
Rated current	2 A	1.5 A
Material data		
Material contact/contact surface	Cu alloy / Au	Cu alloy / Au
Contact carrier material	PA 6.6	PA 6.6
Flammability rating in accordance with UL 94	HB	HB
Cable type	PVC litz wire	PVC litz wire
Temperature data		
Male connector/female connector	-25 ... 85	-25 ... 85

Ordering data					
Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
6-pos.		8-pos.			
Female	A - standard	1542677	1	1424231	1
Male	A - standard	1542664	1	1424232	1
Female	B - inverse				
Male	B - inverse				
Flat nut, with:					
M8 thread		1504071	100		

Circular connectors

M8 sensor/actuator device connectors, rear mounting

**M8, M10, M12 fastening thread,
with 0.5 m long litz wires**



3-, 4-pos.



6, 8-pos.



Technical data

General data	
M8 circular connector in accordance with:	
Degree of pollution	3
Degree of protection	IP67
Connection method	Individual wires
Electrical data	
Rated voltage	50 V AC / 60 V DC
Rated current	4 A
Material data	
Material contact/contact surface	Cu alloy / Au
Contact carrier material	PUR / PA 6.6
Flammability rating in accordance with UL 94	HB
Cable type	PVC litz wire
Temperature data	
Male connector/female connector	[-25 ... 85 °C]

Ordering data

Description	Coding
Device connector, M8 fastening thread	
Male	A - standard
Device connector, M10 fastening thread	
Female	A - standard
Device connector, M12 fastening thread	
Female	A - standard

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
3-pos.		4-pos.	
1453478	1	1453481	1
1456080	1	1456093	1
1453449	1	1453452	1



Technical data

General data	
M8 circular connector in accordance with:	
Degree of pollution	3
Degree of protection	IP67
Connection method	Individual wires
Electrical data	
Rated voltage	30 V AC / 30 V DC
Rated current	2 A
Material data	
Material contact/contact surface	Cu alloy / Au
Contact carrier material	PUR / PA 6.6
Flammability rating in accordance with UL 94	HB
Cable type	PVC litz wire
Temperature data	
Male connector/female connector	[-25 ... 85 °C]

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
6-pos.		8-pos.	
1453494	1	1424230	1
1456103	1	1424229	1
1453465	1		

M12 sensor/actuator device connectors, front mounting

**Pg9 fastening thread,
with 0.5 m long litz wires**



4-, 5-, 8-pos.

can be positioned,
4-, 5-, 8-pos.

Technical data			
	4-pos.	5-pos.	8-pos.
General data			
M12 circular connector in accordance with:	IEC 61076-2-101	IEC 61076-2-101	IEC 61076-2-101
Degree of pollution	3	3	3
Degree of protection	IP67	IP67	IP67
Connection method	Individual wires	Individual wires	Individual wires
Electrical data			
Rated voltage	250 V	60 V	30 V
Rated current	4 A	4 A	2 A
Material data			
Material contact/contact surface	CuZn / Ni/Au	CuZn / Ni/Au	CuZn / Ni/Au
Contact carrier material	PA66	PA66	PA66
Flammability rating in accordance with UL 94	V0	V0	V0
Cable type	TPE litz wire	TPE litz wire	TPE litz wire
Temperature data			
Male connector/female connector	-25 ... 85	-25 ... 85	-25 ... 85

Ordering data					
Description	Coding	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
		4-pos.		5-pos.	

Device connector					
Female	A - standard	1693788	1	1671098	1
Male	A - standard	1693762	1	1671111	1
Female	B - inverse			1513758	1
Male	B - inverse			1513774	1

Accessories			
Flat nut, with: Pg9 thread	SACC-E-MU-PG9	1504084	100



Technical data			
	4-pos.	5-pos.	8-pos.
General data			
M12 circular connector in accordance with:	IEC 61076-2-101	IEC 61076-2-101	IEC 61076-2-101
Degree of pollution	3	3	3
Degree of protection	IP67	IP67	IP67
Connection method	Individual wires	Individual wires	Individual wires
Electrical data			
Rated voltage	250 V	60 V	30 V
Rated current	4 A	4 A	2 A
Material data			
Material contact/contact surface	CuZn / Ni/Au	CuZn / Ni/Au	CuZn / Ni/Au
Contact carrier material	PA66	PA66	PA66
Flammability rating in accordance with UL 94	V0	V0	V0
Cable type	TPE litz wire	TPE litz wire	TPE litz wire
Temperature data			
Male connector/female connector	-25 ... 85	-25 ... 85	-25 ... 85

Ordering data					
Description	Coding	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
		4-pos.		5-pos.	

Device connector					
Female	A - standard	1693791	1	1671108	1
Male	A - standard	1693775	1	1671124	1
Female	B - inverse			1515044	1
Male	B - inverse			1515057	1

Accessories			
Flat nut, with: Pg9 thread			

M12 sensor/actuator device connectors, front mounting

**M16 fastening thread,
with 0.5 m long litz wires**



4-, 5-, 8-pos.



12-, 17-pos.



Technical data			
4-pos.	5-pos.	8-pos.	
General data			
M12 circular connector in accordance with:	IEC 61076-2-101	IEC 61076-2-101	IEC 61076-2-101
Degree of pollution	3	3	3
Degree of protection	IP65/IP67	IP65/IP67	IP65/IP67
Connection method	Individual wires	Individual wires	Individual wires
Electrical data			
Rated voltage	250 V	60 V	30 V
Rated current	4 A	4 A	2 A
Material data			
Material contact/contact surface	CuZn / Ni/Au	CuZn / Ni/Au	CuZn / Ni/Au
Contact carrier material	PA 6.6	PA 6.6	PA 6.6
Flammability rating in accordance with UL 94	V0	V0	V0
Cable type	TPE litz wire	TPE litz wire	TPE litz wire
Temperature data			
Male connector/female connector	-25 ... 85	-25 ... 85	-25 ... 85

Ordering data					
Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
4-pos.		5-pos.		8-pos.	
1523434	1	1520039	1	1523476	1
1523450	1	1520055	1	1523492	1
1535202	1				
1551558	1				
		1520000	1		
		1520013	1		

Accessories		
SACC-E-MU-M16	1504097	100



Technical data			
12-pos.	17-pos.		
General data			
M12 circular connector in accordance with:	IEC 61076-2-101	IEC 61076-2-101	
Degree of pollution	3	3	
Degree of protection	IP65/IP67	IP65/IP67	
Connection method	Individual wires	Individual wires	
Electrical data			
Rated voltage	30 V	30 V	
Rated current	1.5 A	1.5 A	
Material data			
Material contact/contact surface	CuZn / Ni/Au	CuZn / Ni/Au	
Contact carrier material	PA 6.6	PA 6.6	
Flammability rating in accordance with UL 94	V0	V0	
Cable type	TPE litz wire	TPE litz wire	
Temperature data			
Male connector/female connector	-25 ... 85	-25 ... 85	

Ordering data					
Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
12-pos.		17-pos.			
Female	A - standard	1556252	1	1556294	1
Male	A - standard	1556265	1	1556304	1

Accessories		
SACC-E-MU-M16	1504097	100

Flat nut, with:	
M16 thread	

Circular connectors

M12 sensor/actuator device connectors, front mounting

M16 fastening thread,
with 0.5 m long litz wires,
can be positioned



can be positioned,
4-, 5-pos.



can be positioned,
8-pos.



Technical data

General data
M12 circular connector in accordance with:
Degree of pollution
Degree of protection
Connection method
Electrical data
Rated voltage
Rated current
Material data
Material contact/contact surface
Contact carrier material
Flammability rating in accordance with UL 94
Cable type
Temperature data
Male connector/female connector

4-pos.	5-pos.
IEC 61076-2-101	IEC 61076-2-101
3	3
IP67	IP67
Individual wires	Individual wires
250 V	60 V
4 A	4 A
CuZn / Ni/Au	CuZn / Ni/Au
PA 6.6	PA 6.6
V0	V0
TPE litz wire	TPE litz wire
-25 ... 85	-25 ... 85



Technical data

8-pos.
IEC 61076-2-101
3
IP67
Individual wires
30 V
2 A
CuZn / Ni/Au
PA 6.6
V0
TPE litz wire
-25 ... 85

Ordering data

Description	Coding
Device connector	
Female	A - standard
Male	A - standard
Female	D - data
Male	D - data
Female	B - inverse
Male	B - inverse

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
4-pos.		5-pos.	
1523447	1	1520042	1
1523463	1	1520068	1
1535215	1		
1552256	1		
		1519998	1
		1520026	1

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
8-pos.			
1523489	1		
1523502	1		

M12 sensor/actuator device connectors, front mounting

**XL device connectors,
M16 fastening thread,
with 0.5 m long litz wires**

- Tightening limitation
- Wrench size 19



4-, 5-, 8-pos.



12-, 17-pos.



Technical data			
4-pos.	5-pos.	8-pos.	
General data			
M12 circular connector in accordance with:	IEC 61076-2-101	IEC 61076-2-101	IEC 61076-2-101
Degree of pollution	3	3	3
Degree of protection	IP65/IP67	IP65/IP67	IP65/IP67
Connection method	Individual wires	Individual wires	Individual wires
Electrical data			
Rated voltage	250 V	60 V	30 V
Rated current	4 A	4 A	2 A
Material data			
Material contact/contact surface	CuZn / Au	CuZn / Au	CuZn / Au
Contact carrier material	PA 6.6	PA 6.6	PA 6.6
Flammability rating in accordance with UL 94	V0	V0	V0
Cable type	TPE litz wire	TPE litz wire	TPE litz wire
Temperature data			
Male connector/female connector	-25 ... 85	-25 ... 85	-25 ... 85

Ordering data					
Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
4-pos.		5-pos.		8-pos.	

Device connector					
Female	A - standard	1411568	1	1411571	1
Male	A - standard	1411577	1	1411579	1
Female	D - data	1411569	1	1411581	1
Male	D - data	1411578	1		
Female	B - inverse			1411572	1
Male	B - inverse			1411580	1

Accessories		
SACC-E-MU-M16	1504097	100



Technical data			
12-pos.	17-pos.		
General data			
IEC 61076-2-101	IEC 61076-2-101		
3	3		
IP65/IP67	IP65/IP67		
Individual wires	Individual wires		
Electrical data			
30 V	30 V		
1.5 A	1.5 A		
Material data			
CuZn / Au	CuZn / Au		
PA 6.6	PA 6.6		
V0	V0		
TPE litz wire	TPE litz wire		
Temperature data			
-25 ... 85	-25 ... 85		

Ordering data					
Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
12-pos.		17-pos.			

Device connector					
Female	A - standard	1411574	1	1411576	1
Male	A - standard	1411582	1	1411583	1

Accessories		
SACC-E-MU-M16	1504097	100

Flat nut, with:	
M16 thread	

Circular connectors

M12 sensor/actuator device connectors, front mounting

M20 fastening thread, with 0.5 m long litz wires

– Housing material: brass, nickel-plated



4-, 5-, 8-pos.



Technical data

	4-pos.	5-pos.	8-pos.
General data			
M12 circular connector in accordance with:	IEC 61076-2-101	IEC 61076-2-101	IEC 61076-2-101
Degree of pollution	3	3	3
Degree of protection	IP67/IP69K	IP67/IP69K	IP67/IP69K
Connection method	Individual wires	Individual wires	Individual wires
Electrical data			
Rated voltage	250 V	60 V	30 V
Rated current	4 A	4 A	2 A
Material data			
Material contact/contact surface	CuZn / Au	CuZn / Au	CuZn / Au
Contact carrier material	PA 6.6	PA 6.6	PA 6.6
Flammability rating in accordance with UL 94	V0	V0	V0
Cable type	TPE litz wire	TPE litz wire	TPE litz wire
Temperature data			
Male connector/female connector	-25 ... 85	-25 ... 85	-25 ... 85

Ordering data

Description	Coding	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
		4-pos.		5-pos.		8-pos.	
Device connector							
Female	A - standard	1408436	1	1408454	1	1408453	1
Male	A - standard	1408451	1	1408446	1	1408442	1

Circular connectors

M12 sensor/actuator device connectors, front mounting

One-piece, 20 mm square flange,
with 0.5 m long litz wires

- 4x fixing hole, 3.2 mm
- With form seal for M3 screws



4-, 5-, 8-pos.



12-, 17-pos.



Technical data		
4-pos.	5-pos.	8-pos.
General data		
M12 circular connector in accordance with:	IEC 61076-2-101	IEC 61076-2-101
Degree of pollution	3	3
Degree of protection	IP67	IP67
Connection method	Individual wires	Individual wires
Electrical data		
Rated voltage	250 V	60 V
Rated current	4 A	4 A
Material data		
Material contact/contact surface	CuZn / Ni/Au	CuZn / Ni/Au
Contact carrier material	PA 6.6	PA 6.6
Flammability rating in accordance with UL 94	V0	V0
Cable type	TPE litz wire	TPE litz wire
Temperature data		
Male connector/female connector	-25 ... 85	-25 ... 85

Ordering data		
Order No.	Pcs./ Pkt.	Order No.
4-pos.	5-pos.	8-pos.
Female	A - standard	1419797
Male	A - standard	1419784
Female	D - data	1441639
Male	D - data	1441626
Female	B - inverse	1441671
Male	B - inverse	1441668



Technical data	
12-pos.	17-pos.
General data	
M12 circular connector in accordance with:	IEC 61076-2-101
Degree of pollution	3
Degree of protection	IP67
Connection method	Individual wires
Electrical data	
Rated voltage	30 V
Rated current	1.5 A
Material data	
Material contact/contact surface	CuZn / Ni/Au
Contact carrier material	PA 6.6
Flammability rating in accordance with UL 94	V0
Cable type	TPE litz wire
Temperature data	
Male connector/female connector	-25 ... 85

Ordering data	
Order No.	Pcs./ Pkt.
12-pos.	17-pos.
Female	A - standard
Male	A - standard
Female	D - data
Male	D - data
Female	B - inverse
Male	B - inverse

M12 sensor/actuator device connectors, front mounting

One-piece, 25 mm square flange, with 0.5 m long litz wires

- 4 x fixing hole, 2.7 mm
- With form seal for M2.5 screws



4-, 5-, 8-pos.



12-, 17-pos.



Technical data		
4-pos.	5-pos.	8-pos.
General data		
M12 circular connector in accordance with:	IEC 61076-2-101	IEC 61076-2-101
Degree of pollution	3	3
Degree of protection	IP67	IP67
Connection method	Individual wires	Individual wires
Electrical data		
Rated voltage	250 V	60 V
Rated current	4 A	2 A
Material data		
Material contact/contact surface	CuZn / Ni/Au	CuZn / Ni/Au
Contact carrier material	PA 6.6	PA 6.6
Flammability rating in accordance with UL 94	V0	V0
Cable type	TPE litz wire	TPE litz wire
Temperature data		
Male connector/female connector	-25 ... 85	-25 ... 85

Ordering data		
Order No.	Pcs./ Pkt.	Order No.
4-pos.	5-pos.	8-pos.
Female	A - standard	1420003
Male	A - standard	1419991
Female	D - data	1440960
Male	D - data	1440957
Female	B - inverse	1441558
Male	B - inverse	1440999



Technical data		
12-pos.	17-pos.	
General data		
M12 circular connector in accordance with:	IEC 61076-2-101	IEC 61076-2-101
Degree of pollution	3	3
Degree of protection	IP67	IP67
Connection method	Individual wires	Individual wires
Electrical data		
Rated voltage	30 V	30 V
Rated current	1.5 A	1.5 A
Material data		
Material contact/contact surface	CuZn / Ni/Au	CuZn / Ni/Au
Contact carrier material	PA 6.6	PA 6.6
Flammability rating in accordance with UL 94	V0	V0
Cable type	TPE litz wire	TPE litz wire
Temperature data		
Male connector/female connector	-25 ... 85	-25 ... 85

Ordering data		
Order No.	Pcs./ Pkt.	Order No.
12-pos.	17-pos.	
Female	A - standard	1441590
Male	A - standard	1441587
Female	D - data	1441613
Male	D - data	1441600
Female	B - inverse	
Male	B - inverse	

Circular connectors

M12 sensor/actuator device connectors, front mounting

**Modular, 25 mm square flange,
pre-assembled**



**Flange housing,
housing bore holes 3.2 mm**



**With 0.5 m long litz wires,
assembled contact carrier
and insulating body**

ERC

Technical data

General data			
M12 circular connector in accordance with:	IEC 61076-2-101		
Degree of pollution	-		
Degree of protection	-		
Connection method	-		
Electrical data			
Rated voltage			
Rated current	-		
Material data			
Material contact/contact surface	- / -		
Contact carrier material	-		
Cable gland material	Zinc die-cast, nickel-plated		
Flammability rating in accordance with UL 94	-		
Cable type	-		
Temperature data			
Male connector/female connector	[°C]	-40 ... 85	

Ordering data

Description	Coding	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
Square flange housing, with O-ring		1419959	10				
Assembled contact carrier and insulating body, with 0.5 m litz wires and crimp contacts							
Male	A - standard						
Male	D - data						
Male	B - inverse						

ERC

Technical data

4-pos.	5-pos.	8-pos.
IEC 61076-2-101	IEC 61076-2-101	IEC 61076-2-101
3	3	3
IP67	IP67	IP67
Crimp contacts	Crimp contacts	Crimp contacts
250 V	60 V	30 V
4 A	4 A	2 A
CuZn / Au	CuZn / Au	CuZn / Au
PA 6.6	PA 6.6	PA 6.6
-	-	-
V0	V0	V0
TPE litz wire	TPE litz wire	TPE litz wire
-25 ... 85	-25 ... 85	-25 ... 85

Ordering data

Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
4-pos.		5-pos.		8-pos.	
1440805	1	1440818	1	1457827	1
1440821	1	1440759	1		

**Modular, 25 mm square flange,
for free assembly**



**Flange housing,
housing bore holes 3.2 mm**



**Contact carriers and
insulating bodies for assembly**

ERC

Technical data					
IEC 61076-2-101					
-					
-					
-					
-					
-					
Zinc die-cast, nickel-plated					
-					
-40 ... 85					
Ordering data					
Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
1419959	10				
Accessories					

ERC

Technical data					
4-pos.		5-pos.		8-pos.	
IEC 61076-2-101		IEC 61076-2-101		IEC 61076-2-101	
3		3		3	
IP67		IP67		IP67	
Crimp contacts		Crimp contacts		Crimp contacts	
250 V		60 V		30 V	
4 A		4 A		2 A	
PA 6.6		PA 6.6		PA 6.6	
-		-		-	
V0		V0		V0	
-25 ... 85		-25 ... 85		-25 ... 85	
Ordering data					
Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
4-pos.		5-pos.		8-pos.	
1440931	10	1419988	10	1440928	10
1440944	10	1440915	10		
1452356		1452356			
				1452372	
Accessories					
CRIMPFOX-TC MP			1212510		1

Circular connectors

M12 sensor/actuator device connectors, rear mounting

**Pg9 fastening thread,
with 0.5 m long litz wires**



4-, 5-, 8-pos.



12-, 17-pos.



Technical data			
	4-pos.	5-pos.	8-pos.
General data			
M12 circular connector in accordance with:	IEC 61076-2-101	IEC 61076-2-101	IEC 61076-2-101
Degree of pollution	3	3	3
Degree of protection	IP67	IP67	IP67
Connection method	Individual wires	Individual wires	Individual wires
Electrical data			
Rated voltage	250 V	60 V	30 V
Rated current	4 A	4 A	2 A
Material data			
Material contact/contact surface	CuZn / Au	CuZn / Au	CuZn / Au
Contact carrier material	PA 6.6	PA 6.6	PA 6.6
Flammability rating in accordance with UL 94	V0	V0	V0
Cable type	TPE litz wire	TPE litz wire	TPE litz wire
Temperature data			
Male connector/female connector	-25 ... 85	-25 ... 85	-25 ... 85



Technical data			
	12-pos.	17-pos.	
General data			
M12 circular connector in accordance with:	IEC 61076-2-101	IEC 61076-2-101	
Degree of pollution	3	3	
Degree of protection	IP67	IP67	
Connection method	Individual wires	Individual wires	
Electrical data			
Rated voltage	30 V	30 V	
Rated current	1.5 A	1.5 A	
Material data			
Material contact/contact surface	CuZn / Au	CuZn / Au	
Contact carrier material	PA 6.6	PA 6.6	
Flammability rating in accordance with UL 94	V0	V0	
Cable type	TPE litz wire	TPE litz wire	
Temperature data			
Male connector/female connector	-25 ... 85	-25 ... 85	

Ordering data					
		4-pos.	5-pos.	8-pos.	
Description	Coding	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.

Ordering data					
		12-pos.	17-pos.		
Description	Coding	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.

Device connector

Female	A - standard
Male	A - standard
Female	D - data
Male	D - data
Female	B - inverse
Male	B - inverse

1556621	1	1542729	1	1542732	1
1556618	1	1542703	1	1542716	1
1551529	1				
1551532	1				
		1543676	1		
		1543663	1		

1430446	1	1430462	1
1430459	1	1430475	1

M12 sensor/actuator device connectors, rear mounting

**M12 fastening thread,
with 0.5 m long litz wires**



4-, 5-, 8-pos.



12-, 17-pos.



Technical data			
	4-pos.	5-pos.	8-pos.
General data			
M12 circular connector in accordance with:	IEC 61076-2-101	IEC 61076-2-101	IEC 61076-2-101
Degree of pollution	3	3	3
Degree of protection	IP67	IP67	IP67
Connection method	Individual wires	Individual wires	Individual wires
Electrical data			
Rated voltage	250 V	60 V	30 V
Rated current	4 A	4 A	2 A
Material data			
Material contact/contact surface	CuZn / Au	CuZn / Au	CuZn / Au
Contact carrier material	PA 6.6	PA 6.6	PA 6.6
Flammability rating in accordance with UL 94	V0	V0	V0
Cable type	TPE litz wire	TPE litz wire	TPE litz wire
Temperature data			
Male connector/female connector	-25 ... 85	-25 ... 85	-25 ... 85

Ordering data					
Description	Coding	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
		4-pos.		5-pos.	
Device connector					
Male	A - standard	1551875	1	1551888	1
Male	D - data	1551901	1		
Male	B - inverse			1551891	1



Technical data			
	12-pos.	17-pos.	
General data			
M12 circular connector in accordance with:	IEC 61076-2-101	IEC 61076-2-101	
Degree of pollution	3	3	
Degree of protection	IP67	IP67	
Connection method	Individual wires	Individual wires	
Electrical data			
Rated voltage	30 V	30 V	
Rated current	1.5 A	1.5 A	
Material data			
Material contact/contact surface	CuZn / Au	CuZn / Au	
Contact carrier material	PA 6.6	PA 6.6	
Flammability rating in accordance with UL 94	V0	V0	
Cable type	TPE litz wire	TPE litz wire	
Temperature data			
Male connector/female connector	-25 ... 85	-25 ... 85	

Ordering data					
Description	Coding	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
		12-pos.		17-pos.	
Device connector					
Male	A - standard	1437122	1	1437135	1

M12 sensor/actuator device connectors, rear mounting

**M16 fastening thread,
with 0.5 m long litz wires**



4-, 5-, 8-pos.



12-, 17-pos.



Technical data		
4-pos.	5-pos.	8-pos.
General data		
M12 circular connector in accordance with:	IEC 61076-2-101	IEC 61076-2-101
Degree of pollution	3	3
Degree of protection	IP65/IP67	IP65/IP67
Connection method	Individual wires	Individual wires
Electrical data		
Rated voltage	250 V	60 V
Rated current	4 A	4 A
Material data		
Material contact/contact surface	CuZn / Au	CuZn / Au
Contact carrier material	PA 6.6	PA 6.6
Flammability rating in accordance with UL 94	V0	V0
Cable type	TPE litz wire	TPE litz wire
Temperature data		
Male connector/female connector	-25 ... 85	-25 ... 85

Ordering data					
Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
4-pos.		5-pos.		8-pos.	
Female	A - standard	1419632	1	1419658	1
Male	A - standard	1419629	1	1419645	1
Female	D - data	1419616	1		
Male	D - data	1419603	1		
Female	B - inverse			1419674	1
Male	B - inverse			1419661	1



Technical data		
12-pos.	17-pos.	
General data		
M12 circular connector in accordance with:	IEC 61076-2-101	IEC 61076-2-101
Degree of pollution	3	3
Degree of protection	IP65/IP67	IP65/IP67
Connection method	Individual wires	Individual wires
Electrical data		
Rated voltage	30 V	30 V
Rated current	1.5 A	1.5 A
Material data		
Material contact/contact surface	CuZn / Au	CuZn / Au
Contact carrier material	PA 6.6	PA 6.6
Flammability rating in accordance with UL 94	V0	V0
Cable type	TPE litz wire	TPE litz wire
Temperature data		
Male connector/female connector	-25 ... 85	-25 ... 85

Ordering data					
Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
12-pos.		17-pos.			
Female	A - standard	1419713	1	1419739	1
Male	A - standard	1419700	1	1419726	1

Circular connectors

M12 sensor/actuator device connectors, rear mounting

**XL device connectors,
M16 fastening thread,
with 0.5 m long litz wires**

- Tightening limitation
- Wrench size 19



4-, 5-, 8-pos.



12-, 17-pos.



Technical data		
4-pos.	5-pos.	8-pos.
General data		
M12 circular connector in accordance with:	IEC 61076-2-101	IEC 61076-2-101
Degree of pollution	3	3
Degree of protection	IP65/IP67	IP65/IP67
Connection method	Individual wires	Individual wires
Electrical data		
Rated voltage	250 V	60 V
Rated current	4 A	4 A
Material data		
Material contact/contact surface	CuZn / Au	CuZn / Au
Contact carrier material	PA 6.6	PA 6.6
Flammability rating in accordance with UL 94	V0	V0
Cable type	TPE litz wire	TPE litz wire
Temperature data		
Male connector/female connector	-25 ... 85	-25 ... 85

Ordering data		
Order No.	Pcs./ Pkt.	Order No.
4-pos.	5-pos.	8-pos.
Female	A - standard	1411584
Male	A - standard	1411591
Female	D - data	1411585
Male	D - data	1411592
Female	B - inverse	1411587
Male	B - inverse	1411594



Technical data	
12-pos.	17-pos.
General data	
M12 circular connector in accordance with:	IEC 61076-2-101
Degree of pollution	3
Degree of protection	IP65/IP67
Connection method	Individual wires
Electrical data	
Rated voltage	30 V
Rated current	1.5 A
Material data	
Material contact/contact surface	CuZn / Au
Contact carrier material	PA 6.6
Flammability rating in accordance with UL 94	V0
Cable type	TPE litz wire
Temperature data	
Male connector/female connector	-25 ... 85

Ordering data	
Order No.	Pcs./ Pkt.
12-pos.	17-pos.
Female	A - standard
Male	A - standard
Female	D - data
Male	D - data
Female	B - inverse
Male	B - inverse

**M16 fastening thread,
with assembled cable, shielded**



**PUR cable, 4-, 5-, 8-pos.,
shielded**



**PVC cable, 12-, 17-pos.,
shielded**

EAC

Technical data			
4-pos.	5-pos.	8-pos.	
General data			
M12 circular connector in accordance with:	IEC 61076-2-101	IEC 61076-2-101	IEC 61076-2-101
Degree of pollution	3	3	3
Degree of protection	IP67	IP67	IP67
Connection method	Individual wires	Individual wires	Individual wires
Electrical data			
Rated voltage	250 V	60 V	30 V
Rated current	4 A	4 A	2 A
Material data			
Material contact/contact surface	CuZn / Au	CuZn / Au	CuZn / Au
Contact carrier material	PA 6.6	PA 6.6	PA 6.6
Flammability rating in accordance with UL 94	V0	V0	V0
Cable type	PUR halogen-free black	PUR halogen-free black	PUR halogen-free black
Temperature data			
Male connector/female connector	-25 ... 85	-25 ... 85	-25 ... 85

Ordering data					
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
4-pos.		5-pos.		8-pos.	

1419302	1	1419328	1	1419357	1
1419399	1	1419409	1	1419425	1
1419315	1	1419331	1	1419344	1
1419386	1	1419412	1	1419438	1

EAC

Technical data			
12-pos.	17-pos.		
General data			
M12 circular connector in accordance with:	IEC 61076-2-101	IEC 61076-2-101	
Degree of pollution	3	3	
Degree of protection	IP67	IP67	
Connection method	Individual wires	Individual wires	
Electrical data			
Rated voltage	30 V	30 V	
Rated current	1.5 A	1.5 A	
Material data			
Material contact/contact surface	CuZn / Au	CuZn / Au	
Contact carrier material	PA 6.6	PA 6.6	
Flammability rating in accordance with UL 94	V0	V0	
Cable type	PVC black	PVC black	
Temperature data			
Male connector/female connector	-25 ... 85	-25 ... 85	

Ordering data					
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
12-pos.		17-pos.			

Device connector, A-coded					
Female	1 m	1442188	1	1442269	1
Male	1 m	1442227	1	1442308	1
Female	2 m	1442191	1	1442272	1
Male	2 m	1442230	1	1442311	1

Circular connectors

M12 sensor/actuator device connectors, rear mounting

Pg9 fastening thread, plastic,
with 0.5 m long litz wires



5-, 8-pos.

ERC

		Technical data			
		5-pos.	8-pos.		
General data					
M12 circular connector in accordance with:		IEC 61076-2-101	IEC 61076-2-101		
Degree of pollution		3	3		
Degree of protection		IP67	IP67		
Electrical data					
Rated voltage		60 V	30 V		
Rated current		4 A	2 A		
Material data					
Material contact/contact surface		CuZn / Au	CuZn / Au		
Contact carrier material		PA 6.6	PA 6.6		
Flammability rating in accordance with UL 94		HB	HB		
Temperature data					
Male connector/female connector		-25 ... 85	-25 ... 85		
		[°C]			
		Ordering data			
Description	Coding	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
		5-pos.		8-pos.	
Device connector					
Female	A - standard	1436356	1	1436369	1

EAC

Technical data		
4-pos.	5-pos.	8-pos.
IEC 61076-2-101	IEC 61076-2-101	IEC 61076-2-101
3	3	3
IP67	IP67	IP67
60 V	60 V	30 V
4 A	4 A	2 A
CuZn	CuZn	CuZn
Au	Au	Au
PA 6.6	PA 6.6	PA 6.6
HB	HB	HB
-25 ... 85	-25 ... 85	-25 ... 85

Ordering data					
Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
4-pos.		5-pos.		8-pos.	

Control cabinet feed-through, M16 fastening thread		1	1	1
Male to female	A - standard	1551671	1	1551697
Male to female	B - inverse	1551684	1	
Female to female	D - data	1424326	1	

Sealing elements

During transport or when in the field, unused plug-in connections must be protected or sealed. Plastic or metal screw plugs, sealing caps, and sealing plugs can be used for this. IP65/IP67 and IP69K protection is achieved.



Description	Ordering data		
	Type	Order No.	Pcs./Pkt.
M5 screw plug ① for unused M5 sockets of sensor/actuator cables, boxes, and device connectors	PROT-M5	1533288	10
M8 screw plug ② for unused M8 sockets of sensor/actuator cables, boxes, and device connectors	PROT-M8	1682540	5
M12 screw plug ③ for unused M12 sockets of sensor/actuator cables, boxes, and device connectors	PROT-M12	1680539	5
M12 screw plug fast locking system ④ for unused M12 sockets of sensor/actuator cables, boxes, and device connectors	PROT-MS SCO	1553129	5
M12 sealing cap ⑤ for unused M12 connectors of sensor/actuator cables, device connectors, and I/O devices in the field	PROT-M12 FS	1560251	5
M12 screw plug, metal ⑥ for unused M12 sockets of shielded sensor/actuator cables, boxes, and device connectors	PROT-M12 SH	1503302	5
Metal M12 sealing cap ⑦ for unused M12 connectors of sensor/actuator cables, device connectors, and I/O devices in the field	PROT-M12 FS-M	1430488	10
for unused M12 sockets	PROT-M12 MS-M	1414148	10
Stainless steel M12 screw plug ⑧ for unused M12 sockets of sensor/actuator cables, boxes, and device connectors	PROT-M12 FB	1555538	5
Closing cap ⑨ for Pg9/ Pg11, to close unoccupied connections	Q-PROT 9/11	1670235	10
M16 screw plug ⑩ With flat nut for oval housing cutouts	SACC-M16-SEALING PLUG SET	1453368	10

Sealing elements with holding band or fixing chain

All IP67 interfaces can be closed tightly using the screw plugs and sealing caps in the sizes M8, M12 and 7/8". The holding bands are fastened on the cable or the housing and are thus held captive.

The M12 metal protective cap with fixing chain is suitable for all male versions. It is used in harsh industrial environments or for EMC applications.



Ordering data			
Description	Type	Order No.	Pcs./Pkt.
Screw plug made from plastic with retaining strap, for sealing unused sockets ① M8 for SAC cables M8 with 3 mm fastening eye M8 with 12 mm fastening eye M12 for SAC cables M12 with 15 mm fastening eye 7/8" for SAC cables			
	PROT-M 8 MS-PA-CHAIN	1430860	10
	PROT-M 8 MS-PA-CHAIN-EYE-DM3	1441105	10
	PROT-M 8 MS-PA-CHAIN-EYE	1441095	10
	PROT-M12 MS-PA-CHAIN	1430899	5
	PROT-M12 MS-PA-CHAIN-EYE-DM14	1456200	5
	PROT-MINMS-PA-CHAIN	1430925	10
Plastic sealing cap with holding band, for closing unoccupied connectors ② M8 for SAC cables M8 with 8 mm fastening eye M12 for SAC cables M12 with 12 mm fastening eye M12 with 15 mm fastening eye 7/8" for SAC cables			
	PROT-M 8 FS-PA-CHAIN	1430857	10
	PROT-M 8 FS-PA-CHAIN-EYE	1441082	10
	PROT-M12 FS-PA-CHAIN	1430873	5
	PROT-M12 FS-PA-CHAIN-EYE-DM12	1456187	5
	PROT-M12 FS-PA-CHAIN-EYE-DM14	1456190	5
	PROT-MINFS-PA-CHAIN	1430912	10
Sealing cap made of metal with fixing chain and 16 mm fastening eye, for sealing: ③ unused M12 male connectors unused M12 female connectors			
	PROT-M12 FS-M-CHAIN	1430491	10
	PROT-M12 MS-M-CHAIN	1414147	1

Accessories for device connectors

Special fixing nuts are available for the EMC-compliant installation of M12 device connectors for coated or painted housing surfaces. When tightened they cut through the surface coating and establish contact between the housing and the connector.

Alternatively, flat gaskets can be used to provide the seal between the housing panel and device connector. This means that the housing cutouts no longer need to be chamfered for thin panels.



Ordering data			
Description		Type	Order No. Pcs./Pkt.
EMC hexagonal nut with fine toothing, for all device connectors with: M12 fastening thread	①	SACC-M12-KD-NUT-SH	1440151 10
EMC hexagonal nut with fine toothing, for all device connectors with: M16 fastening thread	②	SACC-M16-KD-NUT-SH	1440164 10
Pg9 fastening thread		SACC-PG9-KD-NUT-SH	1440177 10
Flat gasket for all device connectors with:	③		
M16 fastening thread		SACC-M16-SEAL CLM	1430394 10
Pg9 fastening thread		SACC-PG9-SEAL CLM	1556320 10

Assembly tools for sensor/actuator cables

To achieve tight plug-in connections, we recommend using assembly tools. M12 and 7/8" circular connectors can be assembled using a torque screwdriver and plug attachment.

The benefits of the plug attachment become particularly clear when connecting the connectors to distributor boxes. Thanks to the open design, it enables quick adjustment and installation even when space is at a premium.

The version for M12 connectors with hexagonal high-grade steel knurl is also made from high-grade steel. This prevents the connector knurls from being contaminated by corrosive materials.

For greater flexibility, screwdrivers with adjustable torque are available. When used in conjunction with the adapter insert, the available nuts can also be accommodated.



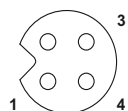
Description	
Torque screwdriver With a preset torque of 0.8 Nm and a 4 mm hexagonal drive	①
Nut for assembling 7/8" connectors, with a knurl diameter of 25 mm, with 4 mm hexagonal drive	②
Torque screwdriver With preset torque of 0.4 Nm and 4 mm hexagonal drive	③
Nut for assembling sensor/actuator cables with M12 connector and M12 connectors for assembly, with a hexagonal knurl wrench size of 14 mm, with 4 mm hexagonal drive	④
Torque screwdriver , accuracy in accordance with standard EN ISO 6789 adjustable from 0.3 ... 1.2 Nm adjustable from 1.2 ... 3 Nm adjustable from 3 ... 6 Nm	⑤
Adapter insert For torque screwdrivers with adjustable torque, for accommodating plug attachments with 4 mm hexagonal drive	⑥

Ordering data			
Type	Order No.	Pcs./Pkt.	
TSD 08 SAC	1212597	1	
SAC BIT MIN-D25	1212512	1	
TSD 04 SAC	1208429	1	
SAC BIT M12-W14	1212513	1	
TSD-M 1,2NM	1212224	1	
TSD-M 3NM	1212225	1	
TSD-M 6NM	1212226	1	
TSD-M SAC-BIT ADAPTER	1212600	1	

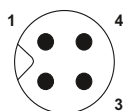
Circular connectors

Pin assignments

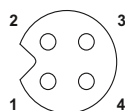
M5 device connectors



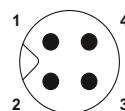
Female, 3-pos.



Male, 3-pos.



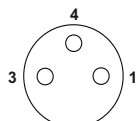
Female, 4-pos.



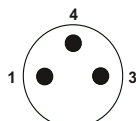
Male, 4-pos.

Pin	3-pos.		4-pos.	
1	BN		BN	
2	–		WH	
3	BU		BU	
4	BK		BK	

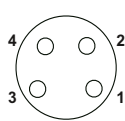
M8 device connectors



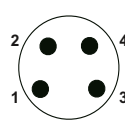
Female, 3-pos.



Male, 3-pos.

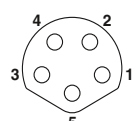


Female, 4-pos.

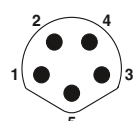


Male, 4-pos.

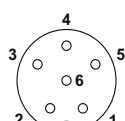
Pin	3-pos., A-coded		4-pos., A-coded	
1	BN		BN	
2	–		WH	
3	BU		BU	
4	BK		BK	



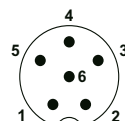
Female, 5-pos., B-coded



Male, 5-pos., B-coded

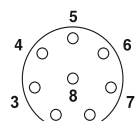


Female, 6-pos.

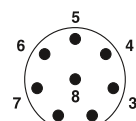


Male, 6-pos.

Pin	5-pos. B-coded		6-pos., A-coded	
1	GY		BN	
2	RD		WH	
3	WH		BU	
4	BK		BK	
5	BU		GY	
6	–		PK	



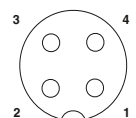
Female, 8-pos.



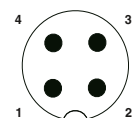
Male, 8-pos.

Pin	8-pos., A-coded	
1	WH	
2	BN	
3	GN	
4	YE	
5	GY	
6	PK	
7	BU	
8	RD	

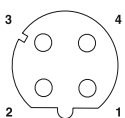
M12 device connectors



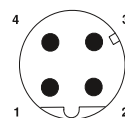
Female, 4-pos., A-coded



Male, 4-pos., A-coded

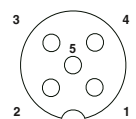


Female, 4-pos., D-coded

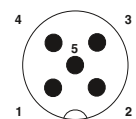


Male, 4-pos., D-coded

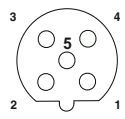
Pin	4-pos., A-coded		4-pos., D-coded	
1	BN		YE	
2	WH		WH	
3	BU		OG	
4	BK		BU	



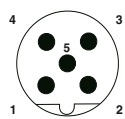
Female, 5-pos., A-coded



Male, 5-pos., A-coded

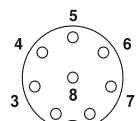


Female, 5-pos., B-coded

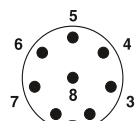


Male, 5-pos., B-coded

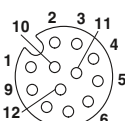
Pin	5-pos., A-coded		5-pos., B-coded	
1	BN		BN	
2	WH		WH	
3	BU		BU	
4	BK		BK	
5	GY		GY	



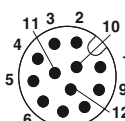
Female, 8-pos.



Male, 8-pos.



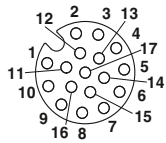
Female, 12-pos.



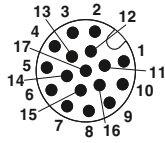
Male, 12-pos.

Pin	8-pos.		12-pos.	
1	WH		BN	
2	BN		BU	
3	GN		WH	
4	YE		GN	
5	GY		PK	
6	PK		YE	
7	BU		BK	
8	RD		GY	
9	–		RD	
10	–		VT	
11	–		GYPK	
12	–		RDBU	

M12 device connectors



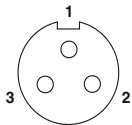
Female, 17-pos.



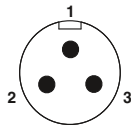
Male, 17-pos.

Pin	17-pos.	Pin	17-pos.
1	BN	9	RD
2	BU	10	VT
3	WH	11	GYPK
4	GN	12	RDBU
5	PK	13	WHGN
6	YE	14	BNGN
7	BK	15	WHYE
8	GY	16	YEEN
		17	WHGY

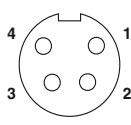
7/8" device connectors



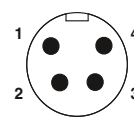
Female, 3-pos.



Male, 3-pos.

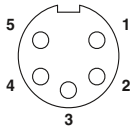


Female, 4-pos.

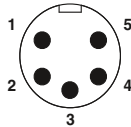


Male, 4-pos.

Pin	3-pos.	4-pos.
1	BK	BK
2	BN	BU
3	BU	BN
4	–	WH



Female, 5-pos.



Male, 5-pos.

Pin	5-pos.
1	BK
2	BU
3	GNYE
4	BN
5	WH

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)
Connection technology:	Crimp connection
Sealing and O-ring:	Fluororubber (FPM)
Ambient temperature:	-40°C ... 125°C
Cable entry:	Cable and coupler connectors for an outer cable diameter of 3.5 to 11 mm, shielded (M17 Compact) 5 to 12.5 mm, shielded (M17)
Type of locking:	M17 SPEEDCON fast locking system, cable connector With M17 x 1 coarse-pitch thread as an option
Mechanical insertion cycles:	Standard: 100, punched-rolled C-HC crimp contacts: up to 500
Protection class:	IP67 when locked

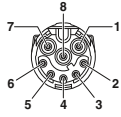
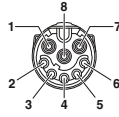
Electrical data			
Number of positions		8	17
Contacts		8	17
Contact Ø	[mm]	1	0.6
Litz wire cross section, turned crimp contacts	[mm²]	0.06 ... 1.0	0.06 ... 0.5
Litz wire cross section, C-HC punched-rolled crimp contacts	[mm²]	0.06 ... 0.56	–
Nominal current per contact at 25°C ¹⁾	[A]	8.0	3.6
Specifications in accordance with DIN EN 61984:2009			
Rated voltage	[V AC/DC]	60	60
Test/surge voltage	[kV AC]	1.5	1.5
Overvoltage category		III	III
Pollution degree ²⁾		3	3
Installation altitude	[m]	Up to 3000	Up to 3000
Cable clamping area ³⁾	Max. Ø [mm]	12.5	12.5

¹⁾ Determine the effective current carrying capacity depending on the application, if necessary, using a derating curve.

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

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

Contact chamber numbering
(view of plug-in side)

Number of positions	Male	Female
8-pos. Crimp		
17-pos. Crimp		

Note:

The connectors can be assembled with male or female contacts depending on the application.

For safety reasons, only use female contacts in the live part of the connector.

Circular connectors

M17 signal connectors

Selection guide

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

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

The connectors are delivered pre-assembled. The connectors can be furnished with the corresponding crimp contacts.

Every housing type can be assembled with male or female contacts. The connectors with knurled nuts can be equipped with the SPEEDCON fast locking system or with M17 x 1 coarse-pitch thread as an option. The connectors with external thread are fully compatible with standard threads and the SPEEDCON fast locking system.

The product chart provides an overview of the available components.

Connector type

Cable connectors

SPEEDCON fast locking system, M17 Compact, see page 64.



M17, see page 66.



M17 x 1 standard locking, M17, see page 66.



Square mounting flange for M17 cable and coupler connectors for wall mounting, see page 179.



Shielded

Coupler connectors / panel feed-throughs

Coupler connector M17 Compact, see page 64.



Panel feed-through M17 Compact, see page 65.



M17, see page 67.



Shielded

Device connectors

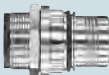
Straight, M17 Compact, see page 65.



Straight, M17, see page 67.



Straight, with central fastening thread, front mounting, M17, see page 69.



Straight, with central fastening thread, rear mounting, M17, see page 69.



Shielded

Angled, rotatable, M17, see page 68.



Crimp contacts

Female contacts

Turned, see page 70.



All housings can be fitted with male or female crimp contacts

Male contacts

Turned, see page 70.



Tools/accessories

Crimping tools

Crimping pliers with digital display for turned crimp contacts, see page 177.



Tools/accessories

Unlocking tool for device connectors with contact carriers for snapping in from the device side, see page 179.



Color rings for individually marking the connectors, see page 180.

**Note:**

For safety reasons, only use female contacts in the live part of the connector.

Circular connectors

M17 signal connectors

Cable connectors, M17 Compact

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



Cable connector,
female assembly



Cable connector,
male assembly

Ordering data

Description	Cable clamping area
Cable connector, with contact carrier, without contacts	
	3.5 mm ... 5.5 mm
	5 mm ... 9.2 mm
	9 mm ... 11.2 mm

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
8-pos.		17-pos.	
1613370	1	1613288	1
1613371	1	1613324	1
1613372	1	1613325	1

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
8-pos.		17-pos.	
1618641	1	1618682	1
1618648	1	1618683	1
1618649	1	1618684	1

Accessories

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

For female contacts, see page 70 onwards
See page 180
See page 181

Accessories

For male contacts, see page 70 onwards
See page 180
See page 181

Coupler connectors, M17 Compact

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



Coupler connector,
female assembly



Coupler connector,
male assembly

Ordering data

Description	Cable clamping area
Coupler connector, with contact carrier, without contacts	
	3.5 mm ... 5.5 mm
	5 mm ... 9.2 mm
	9 mm ... 11.2 mm

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
8-pos.		17-pos.	
1618724	1	1618756	1
1618725	1	1618757	1
1618726	1	1618758	1

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
8-pos.		17-pos.	
1617799	1	1613497	1
1617813	1	1613896	1
1617830	1	1614532	1

Accessories

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

For female contacts, see page 70 onwards
See page 180
See page 181

Accessories

For male contacts, see page 70 onwards
See page 180
See page 181

Panel feed-throughs, M17 Compact

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



Panel feed-through,
female assembly



Panel feed-through,
male assembly

Description		Ordering data				Ordering data			
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 female contacts, see page 70 onwards				For male contacts, see page 70 onwards			
Color rings, 50 pcs. in set (to be ordered separately)		See page 180				See page 180			
Protective caps (to be ordered separately)		See page 181				See page 181			

Device connectors, M17 Compact, front mounting

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



Device connector, straight,
female assembly



Device connector, straight,
male assembly

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 connector, with contact carrier, without contacts, contact insert for support on the device									
		1619039	1	1607654	1	1613286	1	1607636	1
Device connector, with contact carrier, without contacts, contact insert can be snapped in									
		1619038	1	1607653	1	1619037	1	1607634	1
		Accessories				Accessories			
Crimp contacts		For female contacts, see page 70 onwards				For male contacts, see page 70 onwards			
Color rings, 50 pcs. in set (to be ordered separately)		See page 180				See page 180			
Protective caps (to be ordered separately)		See page 181				See page 181			
Unlocking tool for contact carriers		See page 179				See page 179			

Circular connectors

M17 signal connectors

Cable connectors, SPEEDCON fast locking system

- Individual marking of connectors with color rings



Cable connector,
female assembly



Cable connector,
male assembly

Description		Cable clamping area	
Cable connector, with contact carrier, without contacts			
		5 mm ... 8 mm	
		8 mm ... 10 mm	
		10 mm ... 12.5 mm	

Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
8-pos.		17-pos.	
1619007	1	1607642	1
1619008	1	1607644	1
1619009	1	1624532	1

Accessories			
For female contacts, see page 70 onwards			
See page 180			
See page 181			

Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
8-pos.		17-pos.	
1618999	1	1607625	1
1619000	1	1607627	1
1619001	1	1624529	1

Accessories			
For male contacts, see page 70 onwards			
See page 180			
See page 181			

Cable connectors, M17 standard locking

- Standard knurled nut compatible with mating connectors with SPEEDCON and M17 standard external thread
- Individual marking of connectors with color rings



Cable connector,
female assembly



Cable connector,
male assembly

Description		Cable clamping area	
Cable connector, with contact carrier, without contacts			
		5 mm ... 8 mm	
		8 mm ... 10 mm	
		10 mm ... 12.5 mm	

Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
8-pos.		17-pos.	
1619003	1	1607641	1
1619004	1	1607643	1
1619005	1	1624531	1

Accessories			
For female contacts, see page 70 onwards			
See page 180			
See page 181			

Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
8-pos.		17-pos.	
1618995	1	1607624	1
1618996	1	1607626	1
1618997	1	1624528	1

Accessories			
For male contacts, see page 70 onwards			
See page 180			
See page 181			

Coupler connectors

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



Coupler connector, female assembly



Coupler connector, male assembly

Description		Ordering data				Ordering data			
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 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 female contacts, see page 70 onwards				For male contacts, see page 70 onwards			
Color rings, 50 pcs. in set (to be ordered separately)		See page 180				See page 180			
Protective caps (to be ordered separately)		See page 181				See page 181			

Device connectors, straight, front mounting

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



Device connector, straight, female assembly



Device connector, straight, male assembly

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 connector , with contact carrier, without contacts, contact insert for support on the device									
Flange dimensions: 25.75 mm x 25.75 mm		1619197	1	1619206	1	1619196	1	1619202	1
Device connector , with contact carrier, without contacts, contact insert can be snapped in									
Flange dimensions: 25.75 mm x 25.75 mm		1619220	1	1619226	1	1619219	1	1619225	1
		Accessories				Accessories			
Crimp contacts		For female contacts, see page 70 onwards				For male contacts, see page 70 onwards			
Color rings, 50 pcs. in set (to be ordered separately)		See page 180				See page 180			
Protective caps (to be ordered separately)		See page 181				See page 181			
Unlocking tool for contact carriers		See page 179				See page 179			

Circular connectors

M17 signal connectors

Device connectors,
angled, rotatable,
front mounting

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



Device connector, angled, rotatable,
female assembly



Device connector, angled, rotatable,
male assembly

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 connector, angled, rotatable, with contact carrier, without contacts								
Fixing with M2.5	1620440	1	1620442	1	1620439	1	1620441	1
Device connector, angled, rotatable, with contact carrier, without contacts								
Fixing with M3	1620455	1	1620457	1	1620456	1	1620458	1
	Accessories				Accessories			
Crimp contacts	For female contacts, see page 70 onwards				For male contacts, see page 70 onwards			
Color rings, 50 pcs. in set (to be ordered separately)	See page 180				See page 180			
Protective caps (to be ordered separately)	See page 181				See page 181			

Device connectors, central fastening thread, front and rear mounting

- Compatible with mating connectors with SPEEDCON or M17 standard knurled nuts
- Snapping in the contact carriers from the device side
- Individual marking of connectors with color rings



Device connector, central fixing,
female assembly



Device connector, central fixing,
male assembly

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 connector, front mounting, M18 x 0.75 fastening thread, with contact carrier, without contacts	1619036	1	1613542	1	1618584	1	1613540	1
Device connector, rear mounting, M20 x 1.5 fastening thread, with contact carrier, without contacts	1619035	1	1613543	1	1619034	1	1613541	1
Description	Accessories				Accessories			
	Type	Order No.	Pcs./Pkt.		Type	Order No.	Pcs./Pkt.	
	ST-E2015151 RC-13041	1613831 1600417	10 10		ST-E2015151 RC-13041	1613831 1600417	10 10	
Crimp contacts	For female contacts, see page 70 onwards				For male contacts, see page 70 onwards			
Color rings, 50 pcs. in set (to be ordered separately)	See page 180				See page 180			
Protective caps (to be ordered separately)	See page 181				See page 181			
Unlocking tool for contact carriers	See page 179				See page 179			

Circular connectors

M17 signal connectors

Crimp contacts, turned

Depending on the number of positions, assemble the M17 signal connectors with Ø 1.0 mm or Ø 0.6 mm contacts.

- 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) can differ from the values listed below.



Crimp contact, female



Crimp contact, male

		Ordering data			Ordering data		
Description	Connection cross section [mm²]	Type	Order No.	Pcs./Pkt.	Type	Order No.	Pcs./Pkt.
Contact female Ø 0.6 mm	0.06 ... 0.25	ST-06KS010	1607580	100			
	0.14 ... 0.34	ST-06KS020	1607581	100			
	0.34 ... 0.50	ST-06KS030	1607582	100			
Contact, Ø 1.0 mm, for signal	0.06 ... 0.25	ST-10KS010	1618239	100			
	0.34 ... 0.50	ST-10KS020	1618251	100			
	0.25 ... 1.0	ST-10KS035	1618464	100			
Contact male Ø 0.6 mm	0.06 ... 0.25				ST-06KP010	1607577	100
	0.14 ... 0.34				ST-06KP020	1607578	100
	0.34 ... 0.50				ST-06KP030	1607579	100
Contact, Ø 1.0 mm, for signal	0.06 ... 0.25				ST-10KP010	1618255	100
	0.34 ... 0.50				ST-10KP020	1618256	100
	0.25 ... 1.0				ST-10KP035	1618458	100
		Accessories			Accessories		
Crimping tools		Order separately, see page 177			Order separately, see page 177		

Notes:

Each connector housing type can be assembled with male or female contacts.

For safety reasons, only use female contacts in the live part of the connector.

Circular connectors

M23 PRO series signal connectors

Mechanical and electrical data

Mechanical data	
Housing material:	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)
Connection technology:	Crimp connection
Sealing and O-ring:	Fluororubber (FPM)
Temperature range:	-40°C ... 125°C
Cable entry:	External cable diameter 3 to 15 mm
Type of locking:	M23 ONECLICK fast locking system, Cable connector with optional M23 x 1 standard locking
Mechanical insertion cycles:	Standard: 100, punched-rolled crimp contacts: up to 500
Protection class:	IP66/IP68

Electrical data							
Number of positions	6	7	9 (8+1)		12	17	
Contacts	6	7	8	+	1	12	17
Contact Ø [mm]	2	2	1	2	1	1	
Litz wire cross section							
Crimp connection: contacts x [mm²] max.	6 x 2.5	7 x 2.5	8 x 0.56 + 1 x 2.5		12 x 1.0	17 x 1.0	
Nominal current per contact at 25°C ¹⁾ [A]	20	20	8	20	8	8	
Specifications in accordance with DIN EN 61984:2009							
Rated voltage [V AC/DC]	300	300	300		150	125	
Test/surge voltage [kV AC]	2.5	2.5	2.5		1.5	2	
Overvoltage category	II	II	II		II	II	
Pollution degree ²⁾	3	3	3		3	3	
Installation altitude [m]	Up to 2000	Up to 2000	Up to 2000		Up to 2,000	Up to 2000	
Cable clamping area ³⁾ Max. Ø [mm]	14.5	14.5	14.5		14.5	15	

¹⁾ Determine the effective current carrying capacity depending on the application, if necessary, using a derating curve.

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

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

Note:

In contrast to connecting equipment, connectors may only be plugged in / unplugged when the power supply is disconnected.

Contact chamber numbering
(view of plug-in side)

**Direction of rotation for
contact chamber numbering**
(view of plug-in side)



Forward running (standard)



Reverse running (standard)

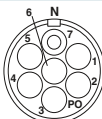
Number of positions

Male

Female

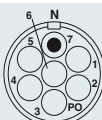
6-pos.

Crimp



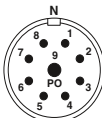
7-pos.

Crimp



9-pos. (8 + 1)

Crimp



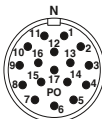
12-pos.

Crimp



17-pos.

Crimp



Note:

The connectors can be assembled with male or female contacts depending on the application.

For safety reasons, only use female contacts in the live part of the connector.

Circular connectors

M23 PRO series signal connectors

Selection guide

M23 PRO series signal connectors
12- and 17-pos., up to 8 A 150 V,
crimp connection.

- Cable connectors
- Device connectors (device flanges)

The connectors can be furnished with
the corresponding crimp contacts.

Every housing type can be assembled
with male or female contacts. The product
chart provides an overview of the available
components.

Connector type

Cable connectors, short design

M23 ONECLICK fast locking system,
see page 76.



M23 x 1 standard locking,
see page 76.



ONECLICK Technology [®]
Designed by PHOENIX CONTACT

Shielded

Device connectors

Front mounting,
angled, rotatable,
flange dimensions: 26 mm x 26 mm,
see page 77.



Front mounting,
angled, rotatable,
flange dimensions: 28 mm x 28 mm,
see page 77.



Shielded

For crimp connection:**Tools/accessories****Female contacts**

Turned, see page 78.



Punched-rolled, taped, see page 78.

**Crimping tools**

Crimping pliers for rolled crimp contacts, see page 176.



Crimping pliers with digital display for turned crimp contacts, see page 176.

**Tools/accessories**

Unlocking tool for device connectors for releasing the contact carriers from the plug-in side, see page 179.

**Male contacts**

Turned, see page 78.



Punched-rolled, taped, see page 78.

**Note:**

For safety reasons, only use female contacts in the live part of the connector.

Female contact
Male contact

Female contact
Male contact

All housings can be fitted with male or female crimp contacts

Circular connectors

M23 PRO series signal connectors

Cable connectors, short design, ONECLICK fast locking system

- Cross-manufacturer connection compatibility
- All housings can be fitted with male or female contacts



6-, 7-, 8+1-pos.



12-, 17-pos.

Ordering data

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

Cable connector, short, with contact carrier, **without** contacts, for **female assembly**, crimp connection

Universal gasket	3 mm ... 15 mm
	4 mm ... 8.5 mm
	6 mm ... 10 mm
	9 mm ... 15 mm

Cable connector, short, with contact carrier, **without** contacts, for **male assembly**, crimp connection

Universal gasket	3 mm ... 15 mm
	4 mm ... 8.5 mm
	6 mm ... 10 mm
	9 mm ... 15 mm

Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
6-pos.		7-pos.		8+1-pos.	

1629184	1	1629180	1	1629172	1
1629187	1	1629183	1	1629175	1
1629186	1	1629182	1	1629174	1
1629185	1	1629181	1	1629173	1

1629188	1	1629176	1	1629168	1
1629191	1	1629179	1	1629171	1
1629190	1	1629178	1	1629170	1
1629189	1	1629177	1	1629169	1

Accessories

Crimp contacts

Order separately, see page 78 onwards

Ordering data

Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
12-pos.		17-pos.			

1629164	1	1629156	1
1629167	1	1629159	1
1629166	1	1629158	1
1629165	1	1629157	1

1629160	1	1629152	1
1629163	1	1629155	1
1629162	1	1629154	1
1629161	1	1629153	1

Accessories

Order separately, see page 78 onwards

Cable connectors, short design, standard locking

- Cross-manufacturer connection compatibility
- All housings can be fitted with male or female contacts



6-, 7-, 8+1-pos.



12-, 17-pos.

Ordering data

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

Cable connector, short, with contact carrier, **without** contacts, for **female assembly**, crimp connection

Universal gasket	3 mm ... 15 mm
	4 mm ... 8.5 mm
	6 mm ... 10 mm
	9 mm ... 15 mm

Cable connector, short, with contact carrier, **without** contacts, for **male assembly**, crimp connection

Universal gasket	3 mm ... 15 mm
	4 mm ... 8.5 mm
	6 mm ... 10 mm
	9 mm ... 15 mm

Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
6-pos.		7-pos.		8+1-pos.	

1629236	1	1629228	1	1629220	1
1629239	1	1629231	1	1629223	1
1629238	1	1629230	1	1629222	1
1629237	1	1629229	1	1629221	1

1629232	1	1629224	1	1629216	1
1629235	1	1629227	1	1629219	1
1629234	1	1629226	1	1629218	1
1629233	1	1629225	1	1629217	1

Accessories

Crimp contacts

Order separately, see page 78 onwards

Ordering data

Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
12-pos.		17-pos.			

1629212	1	1629204	1
1629215	1	1629207	1
1629214	1	1629206	1
1629213	1	1629205	1

1629208	1	1629200	1
1629211	1	1629203	1
1629210	1	1629202	1
1629209	1	1629201	1

Accessories

Order separately, see page 78 onwards

**Device connectors,
angled, rotatable**

- Cross-manufacturer connection compatibility
- All housings can be fitted with male or female contacts



new

Flange dimensions: 26 mm x 26 mm,
12-pos., 17-pos.



new

Flange dimensions: 28 mm x 28 mm,
12-pos., 17-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.
		12-pos.		17-pos.		12-pos.		17-pos.	
Device connector, angled, rotatable, with contact carrier, without contacts, for female assembly, crimp connection		1628499	1	1628497	1	1628495	1	1628493	1
Device connector, angled, rotatable, with contact carrier, without contacts, for male assembly, crimp connection		1628498	1	1628496	1	1628494	1	1628492	1
		Accessories				Accessories			
Crimp contacts		Order separately, see page 78 onwards				Order separately, see page 78 onwards			

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



Punched-rolled crimp contacts



Turned crimp contacts

78 | PHOENIX CONTACT Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveneng.com - www.stevenengineering.com

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)
Connection technology:	Solder cup, crimp connection, solder pin
Sealing and O-ring:	NBR
Flat gasket:	NBR, fiber-reinforced NBR
Temperature range:	-40°C ... 125°C
Cable entry:	Cable and coupler connectors for an outer cable diameter of 3 to 14.5 mm, shielded
Type of locking:	M23 SPEEDCON fast locking system, cable connector with M23 x 1 coarse-pitch thread as an option
Mechanical insertion cycles:	Standard: 100, punched-rolled C-HC crimp contacts: up to 500
Protection class:	IP67 when locked

Electrical data									
Number of positions	6	7	9 (8+1)		12	17	19 (16+3)		19 (16+2+PE)
Contacts	6	7	8 + 1		12	17	16 + 3		16 + 2+PE
Contact Ø [mm]	2	2	1 2		1	1	1 1.5		1 1.5
Litz wire cross section									
Solder connection: contacts x [mm²] max.	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] max.	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⁾ [A]	20	20	8 20		8	8	8 10		8 10
Specifications in accordance with DIN EN 61984:2009									
Rated voltage [V AC/DC]	300	300	300		150	150	150		150
Test/surge voltage [kV AC]	2.5	2.5	2.5		1.5	1.5	1.5		1.5
Overvoltage category	II	II	II		II	II	II		II
Pollution degree ²⁾	3	3	3		3	3	3		3
Installation altitude [m]	Up to 2000	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		14.5

¹⁾ Determine the effective current carrying capacity depending on the application, if necessary, using a derating curve.

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

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

Note:

In contrast to connecting equipment, connectors may only be plugged in / unplugged when the power supply is disconnected.

Contact chamber numbering (view of plug-in side)		
Direction of rotation for contact chamber numbering (view of plug-in side)		
	Forward running (standard)	Reverse running (standard)
Number of positions	Male	Female
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		
19-pos. (16 + 2 + PE) Crimp		

Note:

The connectors can be assembled with male or female contacts depending on the application.

For safety reasons, only use female contacts in the live part of the connector.

Circular connectors

M23 signal connectors

Selection guide

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

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

In the case of crimp connection, the
respective crimp contacts must be added
depending on the connection cross
section.

Every housing type can be assembled
with male or female contacts. The product
chart provides an overview of the available
components.

Connector type

Cable connectors

SPEEDCON fast locking system,
see page 84.

M23 x 1 standard locking,
see page 86.



Coupler connectors

See page 88.



Device connectors

Front mounting,
Pg13.5 fastening thread,
see page 94.

Front mounting,
M20 fastening thread,
see phoenixcontact.net/products



Front mounting,
flange dimensions: 25 mm x 25 mm,
see page 100.

Front mounting, solder-in connection,
flange dimensions: 25 mm x 25 mm,
see phoenixcontact.net/products



Front mounting,
angled, rotatable,
flange dimensions: 26 mm x 26 mm,
see page 104.



Rear mounting,
central fixing nut,
see page 102.



For crimp connection:**Female contacts**

Turned, see page 105.



Punched-rolled, taped,
see page 105.

**Male contacts**

Turned, see page 105.



Punched-rolled, taped,
see page 105.

**Note:**

For safety reasons, only use female contacts in the live part of the connector.

Tools/accessories**Crimping tools**

Crimping pliers for rolled
crimp contacts,
see page 176.



Crimping pliers with digital display for
turned crimp contacts,
see page 176.

**Tools/accessories**

Unlocking tool for device connectors for releasing
the contact carriers from the plug-in side,
see page 179.



Color rings for individually marking the connectors,
see page 180.



All housings can be fitted with male or female crimp contacts

Circular connectors

M23 signal connectors

Cable connectors, SPEEDCON fast locking system

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



6- and 7-pos.



8+1-pos., 12-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.
		6-pos.		7-pos.		8+1-pos.		12-pos.	
Cable connector, with contact carrier, with female contacts, solder connection									
Universal gasket	3 mm ... 14.5 mm	1619605	1	1619601	1	1619597	1	1619593	1
	4 mm ... 6 mm	1619579	1	1619575	1	1619571	1	1619567	1
	6 mm ... 10 mm	1619534	1	1619530	1	1619526	1	1619522	1
	10 mm ... 14.5 mm	1619508	1	1619504	1	1619500	1	1619496	1
Cable connector, with contact carrier, with male contacts, solder connection									
Universal gasket	3 mm ... 14.5 mm	1619604	1	1619600	1	1619596	1	1619592	1
	4 mm ... 6 mm	1619578	1	1619574	1	1619570	1	1619548	1
	6 mm ... 10 mm	1619533	1	1619529	1	1619525	1	1619521	1
	10 mm ... 14.5 mm	1619507	1	1619503	1	1619499	1	1619495	1
Cable connector, with contact carrier, without contacts, for female assembly, crimp connection									
Universal gasket	3 mm ... 14.5 mm	1619603	1	1619599	1	1619595	1	1619591	1
	4 mm ... 6 mm	1619577	1	1619573	1	1619569	1	1619547	1
	6 mm ... 10 mm	1619532	1	1619528	1	1619524	1	1619520	1
	10 mm ... 14.5 mm	1619506	1	1619502	1	1619498	1	1619489	1
Cable connector, with contact carrier, without contacts, for male assembly, crimp connection									
Universal gasket	3 mm ... 14.5 mm	1619602	1	1619598	1	1619594	1	1619590	1
	4 mm ... 6 mm	1619576	1	1619572	1	1619568	1	1619546	1
	6 mm ... 10 mm	1619531	1	1619527	1	1619523	1	1619519	1
	10 mm ... 14.5 mm	1619505	1	1619501	1	1619497	1	1619488	1
		Accessories				Accessories			
For crimp connection: crimp contacts		Order separately, see page 105 onwards				Order separately, see page 105 onwards			
Color rings, 50 pcs. in set (to be ordered separately)		See page 180				See page 180			
Protective caps (to be ordered separately)		See page 181				See page 181			



17-pos., 16+3-pos.



16+2+PE-pos.

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
17-pos.		16+3-pos.	

1619585	1	1619581	1
1619541	1	1619537	1
1619514	1	1619510	1
1619483	1	1619479	1

1619584	1	1619580	1
1619540	1	1619536	1
1619513	1	1619509	1
1619482	1	1619478	1

1619583	1
1619539	1
1619512	1
1619481	1

1619582	1
1619538	1
1619511	1
1619480	1

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
16+2+PE-pos.			

1623838	1
1623836	1
1623834	1
1623832	1

1623837	1
1623835	1
1623833	1
1623831	1

Accessories

Order separately, see page 105 onwards
See page 180
See page 181

Accessories

Order separately, see page 105 onwards
See page 180
See page 181

Circular connectors

M23 signal connectors

Cable connectors, M23 standard locking

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



6- and 7-pos.



8+1-pos., 12-pos.

Description		Ordering data				Ordering data			
		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.	
Cable connector, with contact carrier, with female contacts, solder connection									
Universal gasket	3 mm ... 14.5 mm	1619776	1	1619772	1	1619768	1	1619764	1
	4 mm ... 6 mm	1619750	1	1619746	1	1619742	1	1619738	1
	6 mm ... 10 mm	1619724	1	1619720	1	1619716	1	1619710	1
	10 mm ... 14.5 mm	1619659	1	1619655	1	1619651	1	1619647	1
Cable connector, with contact carrier, with male contacts, solder connection									
Universal gasket	3 mm ... 14.5 mm	1619775	1	1619771	1	1619767	1	1619763	1
	4 mm ... 6 mm	1619749	1	1619745	1	1619741	1	1619737	1
	6 mm ... 10 mm	1619723	1	1619719	1	1619715	1	1619709	1
	10 mm ... 14.5 mm	1619658	1	1619654	1	1619650	1	1619646	1
Cable connector, with contact carrier, without contacts, for female assembly, crimp connection									
Universal gasket	3 mm ... 14.5 mm	1619774	1	1619770	1	1619766	1	1619762	1
	4 mm ... 6 mm	1619748	1	1619744	1	1619740	1	1619736	1
	6 mm ... 10 mm	1619722	1	1619718	1	1619714	1	1619708	1
	10 mm ... 14.5 mm	1619657	1	1619653	1	1619649	1	1619645	1
Cable connector, with contact carrier, without contacts, for male assembly, crimp connection									
Universal gasket	3 mm ... 14.5 mm	1619773	1	1619769	1	1619765	1	1619761	1
	4 mm ... 6 mm	1619747	1	1619743	1	1619739	1	1619735	1
	6 mm ... 10 mm	1619721	1	1619717	1	1619711	1	1619707	1
	10 mm ... 14.5 mm	1619656	1	1619652	1	1619648	1	1619644	1
		Accessories				Accessories			
For crimp connection: crimp contacts		Order separately, see page 105 onwards				Order separately, see page 105 onwards			
Color rings, 50 pcs. in set (to be ordered separately)		See page 180				See page 180			
Protective caps (to be ordered separately)		See page 181				See page 181			



17-pos., 16+3-pos.



16+2+PE-pos.

Ordering data				Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
17-pos.		16+3-pos.		16+2+PE-pos.			
1619756	1	1619752	1				
1619730	1	1619726	1				
1619702	1	1619661	1				
1619639	1	1619635	1				
1619755	1	1619751	1				
1619729	1	1619725	1				
1619701	1	1619660	1				
1619638	1	1619634	1				
1619754	1			1623846	1		
1619728	1			1623844	1		
1619700	1			1623842	1		
1619637	1			1623840	1		
1619753	1			1623845	1		
1619727	1			1623843	1		
1619699	1			1623841	1		
1619636	1			1623839	1		
Accessories				Accessories			
Order separately, see page 105 onwards				Order separately, see page 105 onwards			
See page 180				See page 180			
See page 181				See page 181			

Circular connectors

M23 signal connectors

Coupler connectors

- Compatible with mating connectors with SPEEDCON and M23 standard knurled nut
- 6- to 19-pos. versions, solder or crimp connection
- Individual marking of connectors with color rings



6- and 7-pos.



8+1-pos., 12-pos.

Description		Ordering data				Ordering data			
		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.	
Coupler connector, with contact carrier, with female contacts, solder connection									
Universal gasket	3 mm ... 14.5 mm	1620172	1	1620168	1	1620164	1	1620160	1
	4 mm ... 6 mm	1620145	1	1620141	1	1620137	1	1620133	1
	6 mm ... 10 mm	1620119	1	1620115	1	1620079	1	1620075	1
	10 mm ... 14.5 mm	1620046	1	1620042	1	1620036	1	1620032	1
Coupler connector, with contact carrier, with male contacts, solder connection									
Universal gasket	3 mm ... 14.5 mm	1620171	1	1620167	1	1620163	1	1620159	1
	4 mm ... 6 mm	1620144	1	1620140	1	1620136	1	1620132	1
	6 mm ... 10 mm	1620118	1	1620114	1	1620078	1	1620074	1
	10 mm ... 14.5 mm	1620045	1	1620041	1	1620035	1	1620031	1
Coupler connector, with contact carrier, without contacts, for female assembly, crimp connection									
Universal gasket	3 mm ... 14.5 mm	1620170	1	1620166	1	1620162	1	1620158	1
	4 mm ... 6 mm	1620143	1	1620139	1	1620135	1	1620131	1
	6 mm ... 10 mm	1620117	1	1620081	1	1620077	1	1620073	1
	10 mm ... 14.5 mm	1620044	1	1620038	1	1620034	1	1620030	1
Coupler connector, with contact carrier, without contacts, for male assembly, crimp connection									
Universal gasket	3 mm ... 14.5 mm	1620169	1	1620165	1	1620161	1	1620157	1
	4 mm ... 6 mm	1620142	1	1620138	1	1620134	1	1620130	1
	6 mm ... 10 mm	1620116	1	1620080	1	1620076	1	1620072	1
	10 mm ... 14.5 mm	1620043	1	1620037	1	1620033	1	1620029	1
		Accessories				Accessories			
For crimp connection: crimp contacts		Order separately, see page 105 onwards				Order separately, see page 105 onwards			
Color rings, 50 pcs. in set (to be ordered separately)		See page 180				See page 180			
Protective caps (to be ordered separately)		See page 181				See page 181			



17-pos., 16+3-pos.



16+2+PE-pos.

Ordering data				Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
17-pos.		16+3-pos.		16+2+PE-pos.			
1620151	1	1620147	1				
1620125	1	1620121	1				
1620052	1	1620048	1				
1620024	1	1620020	1				
1620150	1	1620146	1				
1620124	1	1620120	1				
1620051	1	1620047	1				
1620023	1	1620019	1				
1620149	1			1624006	1		
1620123	1			1624009	1		
1620050	1			1624008	1		
1620022	1			1624007	1		
1620148	1			1624010	1		
1620122	1			1624013	1		
1620049	1			1624012	1		
1620021	1			1624011	1		
Accessories				Accessories			
Order separately, see page 105 onwards				Order separately, see page 105 onwards			
See page 180				See page 180			
See page 181				See page 181			

Circular connectors

M23 signal connectors

Cable connectors, angled, SPEEDCON fast locking system

- 6- to 19-pos. versions, solder or crimp connection
- Individual marking of connectors with color rings
- 8 different cable outlet directions can be set



6- and 7-pos.



8+1-pos., 12-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.
		6-pos.		7-pos.		8+1-pos.		12-pos.	
Cable connector, angled, with contact carrier, with female contacts, solder connection									
Universal gasket	3 mm ... 14.5 mm	1619450	1	1619446	1	1619442	1	1619438	1
	4 mm ... 6 mm	1619424	1	1619420	1	1619416	1	1619412	1
	6 mm ... 10 mm	1619398	1	1619394	1	1619390	1	1619386	1
	10 mm ... 14.5 mm	1619372	1	1619366	1	1619362	1	1619358	1
Cable connector, angled, with contact carrier, with male contacts, solder connection									
Universal gasket	3 mm ... 14.5 mm	1619449	1	1619445	1	1619441	1	1619437	1
	4 mm ... 6 mm	1619423	1	1619419	1	1619415	1	1619411	1
	6 mm ... 10 mm	1619397	1	1619393	1	1619389	1	1619385	1
	10 mm ... 14.5 mm	1619371	1	1619365	1	1619361	1	1619357	1
Cable connector, angled, with contact carrier, without contacts, for female assembly, crimp connection									
Universal gasket	3 mm ... 14.5 mm	1619448	1	1619444	1	1619440	1	1619436	1
	4 mm ... 6 mm	1619422	1	1619418	1	1619414	1	1619410	1
	6 mm ... 10 mm	1619396	1	1619392	1	1619388	1	1619384	1
	10 mm ... 14.5 mm	1619368	1	1619364	1	1619360	1	1619356	1
Cable connector, angled, with contact carrier, without contacts, for male assembly, crimp connection									
Universal gasket	3 mm ... 14.5 mm	1619447	1	1619443	1	1619439	1	1619435	1
	4 mm ... 6 mm	1619421	1	1619417	1	1619413	1	1619409	1
	6 mm ... 10 mm	1619395	1	1619391	1	1619387	1	1619383	1
	10 mm ... 14.5 mm	1619367	1	1619363	1	1619359	1	1619354	1
Accessories									
For crimp connection: crimp contacts		Order separately, see page 105 onwards				Order separately, see page 105 onwards			
Color rings, 50 pcs. in set (to be ordered separately)		See page 180				See page 180			
Protective caps (to be ordered separately)		See page 181				See page 181			



17-pos., 16+3-pos.



16+2+PE-pos.

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
17-pos.		16+3-pos.	

1619430	1	1619426	1
1619404	1	1619400	1
1619378	1	1619374	1
1619349	1	1619345	1

1619429	1	1619425	1
1619403	1	1619399	1
1619377	1	1619373	1
1619348	1	1619344	1

1619428	1
1619402	1
1619376	1
1619347	1

1619427	1
1619401	1
1619375	1
1619346	1

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
-----------	-----------	-----------	-----------

1624080	1
1624081	1
1624082	1
1624083	1

1624084	1
1624085	1
1624086	1
1624087	1

Accessories

Order separately, see page 105 onwards
See page 180
See page 181

Accessories

Order separately, see page 105 onwards
See page 180
See page 181

Circular connectors

M23 signal connectors

Cable connectors, angled, M23 standard locking

- Standard knurled nut compatible with mating connectors with SPEEDCON and M23 standard external thread
- 6- to 19-pos. versions, solder or crimp connection
- Individual marking of connectors with color rings
- 8 different cable outlet directions can be set



6- and 7-pos.



8+1-pos., 12-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.
		6-pos.		7-pos.		8+1-pos.		12-pos.	
Cable connector, with contact carrier, with female contacts, solder connection									
Universal gasket	3 mm ... 14.5 mm	1619343	1	1619339	1	1619335	1	1619331	1
	4 mm ... 6 mm	1620291	1	1620287	1	1620283	1	1620279	1
	6 mm ... 10 mm	1620262	1	1620258	1	1620254	1	1620250	1
	10 mm ... 14.5 mm	1620212	1	1620208	1	1620190	1	1620186	1
Cable connector, angled, with contact carrier, with male contacts, solder connection									
Universal gasket	3 mm ... 14.5 mm	1619342	1	1619338	1	1619334	1	1619330	1
	4 mm ... 6 mm	1620290	1	1620286	1	1620282	1	1620278	1
	6 mm ... 10 mm	1620261	1	1620257	1	1620253	1	1620249	1
	10 mm ... 14.5 mm	1620211	1	1620207	1	1620189	1	1620185	1
Cable connector, angled, with contact carrier, without contacts, for female assembly, crimp connection									
Universal gasket	3 mm ... 14.5 mm	1619341	1	1619337	1	1619333	1	1620303	1
	4 mm ... 6 mm	1620289	1	1620285	1	1620281	1	1620277	1
	6 mm ... 10 mm	1620260	1	1620256	1	1620252	1	1620248	1
	10 mm ... 14.5 mm	1620210	1	1620192	1	1620188	1	1620184	1
Cable connector, angled, with contact carrier, without contacts, for male assembly, crimp connection									
Universal gasket	3 mm ... 14.5 mm	1619340	1	1619336	1	1619332	1	1620302	1
	4 mm ... 6 mm	1620288	1	1620284	1	1620280	1	1620276	1
	6 mm ... 10 mm	1620259	1	1620255	1	1620251	1	1620247	1
	10 mm ... 14.5 mm	1620209	1	1620191	1	1620187	1	1620183	1
		Accessories				Accessories			
For crimp connection: crimp contacts		Order separately, see page 105 onwards				Order separately, see page 105 onwards			
Color rings, 50 pcs. in set (to be ordered separately)		See page 180				See page 180			
Protective caps (to be ordered separately)		See page 181				See page 181			



17-pos., 16+3-pos.



16+2+PE-pos.

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
17-pos.		16+3-pos.	

1620297	1	1620293	1
1620268	1	1620264	1
1620218	1	1620214	1
1620178	1	1620174	1

1620296	1	1620292	1
1620267	1	1620263	1
1620217	1	1620213	1
1620177	1	1620173	1

1620295	1
1620266	1
1620216	1
1620176	1

1620294	1
1620265	1
1620215	1
1620175	1

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
-----------	-----------	-----------	-----------

1624071	1
1624072	1
1624073	1
1624074	1

1624075	1
1624076	1
1624077	1
1624078	1

Accessories

Order separately, see page 105 onwards
See page 180
See page 181

Accessories

Order separately, see page 105 onwards
See page 180
See page 181

Circular connectors

M23 signal connectors

Device connectors, front mounting

– Pg13.5 fastening thread

- Compatible with mating connectors with SPEEDCON and M23 standard knurled nut
- 6- to 19-pos. versions, solder or crimp connection
- Individual marking of connectors with color rings



6- and 7-pos.



8+1-pos., 12-pos.

Description	Ordering data				Ordering data			
	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.	
Device connector, with contact carrier, with female contacts, solder connection, Pg13.5 central fastening thread, axial seal	1619903	1	1619899	1	1619895	1	1619891	1
Device connector, with contact carrier, with male contacts, solder connection, Pg13.5 central fastening thread, axial seal	1619902	1	1619898	1	1619894	1	1619890	1
Device connector, with contact carrier, without contacts, for female assembly, crimp connection, Pg13.5 central fastening thread, axial seal	1619901	1	1619897	1	1619893	1	1619889	1
Device connector, with contact carrier, without contacts, for male assembly, crimp connection, Pg13.5 central fastening thread, axial seal	1619900	1	1619896	1	1619892	1	1619888	1
	Accessories				Accessories			
For crimp connection: crimp contacts	Order separately, see page 105 onwards				Order separately, see page 105 onwards			
Color rings, 50 pcs. in set (to be ordered separately)	See page 180				See page 180			
Protective caps (to be ordered separately)	See page 181				See page 181			



17-pos., 16+3-pos.



16+2+PE-pos.

Ordering data				Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
17-pos.		16+3-pos.		16+2+PE-pos.			
1619883	1	1619879	1				
1619882	1	1619878	1				
1619881	1			1624019	1		
1619880	1			1624018	1		
Accessories				Accessories			
Order separately, see page 105 onwards				Order separately, see page 105 onwards			
See page 180				See page 180			
See page 181				See page 181			

Circular connectors

M23 signal connectors

Device connectors, front mounting

– M20 fastening thread

- Compatible with mating connectors with SPEEDCON and M23 standard knurled nut
- 6- to 19-pos. versions, solder or crimp connection
- Individual marking of connectors with color rings



6- and 7-pos.



8+1-pos., 12-pos.

Description	Ordering data				Ordering data			
	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.	
Device connector, with contact carrier, with female contacts, solder connection, M20 central fastening thread, axial seal	1619877	1	1619873	1	1619869	1	1619865	1
Device connector, with contact carrier, with male contacts, solder connection, M20 central fastening thread, axial seal	1619876	1	1619872	1	1619868	1	1619864	1
Device connector, with contact carrier, without contacts, for female assembly, crimp connection, M20 central fastening thread, axial seal	1619875	1	1619871	1	1619867	1	1619863	1
Device connector, with contact carrier, without contacts, for male assembly, crimp connection, M20 central fastening thread, axial seal	1619874	1	1619870	1	1619866	1	1619862	1
Description	Accessories				Accessories			
	Type	Order No.	Pcs./Pkt.		Type	Order No.	Pcs./Pkt.	
	Locking nut, for mounting bore holes and polarization	RC-13041	1600417	10	RC-13041	1600417	10	
M20 x 1.5								
For crimp connection: crimp contacts	Order separately, see page 105 onwards				Order separately, see page 105 onwards			
Color rings, 50 pcs. in set (to be ordered separately)	See page 180				See page 180			
Protective caps (to be ordered separately)	See page 181				See page 181			



17-pos., 16+3-pos.



16+2+PE-pos.

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
17-pos.		16+3-pos.	

1619857

1

1619853

1

1619856

1

1619852

1

1619855

1

1619854

1

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
16+2+PE-pos.			

1624017

1

1624016

1

Accessories

Type	Order No.	Pcs./Pkt.
RC-13041	1600417	10

Order separately, see page 105 onwards

See page 180

See page 181

Accessories

Type	Order No.	Pcs./Pkt.
RC-13041	1600417	10

Order separately, see page 105 onwards

See page 180

See page 181

Circular connectors

M23 signal connectors

Device connectors, front mounting, can be positioned

– M20 fastening thread

- Compatible with mating connectors with SPEEDCON and M23 standard knurled nut
- 6- to 19-pos. versions, solder or crimp connection
- Individual marking of connectors with color rings



6- and 7-pos.



8+1-pos., 12-pos.

Description	Ordering data				Ordering data			
	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.	
Device connector, with contact carrier, with female contacts, solder connection, M20 central fastening thread, axial seal	1624045	1	1624047	1	1624049	1	1624051	1
Device connector, with contact carrier, with male contacts, solder connection, M20 central fastening thread, axial seal	1624044	1	1624046	1	1624048	1	1624050	1
Device connector, with contact carrier, without contacts, for female assembly, crimp connection, M20 central fastening thread, axial seal	1624030	1	1624031	1	1624032	1	1624033	1
Device connector, with contact carrier, without contacts, for male assembly, crimp connection, M20 central fastening thread, axial seal	1624022	1	1624023	1	1624024	1	1624026	1
Description	Accessories				Accessories			
	Type	Order No.	Pcs./Pkt.		Type	Order No.	Pcs./Pkt.	
	Locking nut, for mounting bore holes and polarization							
M20 x 1.5	RC-13041	1600417	10		RC-13041	1600417	10	
For crimp connection: crimp contacts	Order separately, see page 105 onwards				Order separately, see page 105 onwards			
Color rings, 50 pcs. in set (to be ordered separately)	See page 180				See page 180			
Protective caps (to be ordered separately)	See page 181				See page 181			



17-pos., 16+3-pos.



16+2+PE-pos.

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
17-pos.		16+3-pos.	

1624056

1

1624058

1

1624055

1

1624057

1

1624035

1

1624029

1

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
16+2+PE-pos.			

1623629

1

1623630

1

Accessories

Type	Order No.	Pcs./Pkt.
RC-13041	1600417	10

Order separately, see page 105 onwards

See page 180

See page 181

Accessories

Type	Order No.	Pcs./Pkt.
RC-13041	1600417	10

Order separately, see page 105 onwards

See page 180

See page 181

Circular connectors

M23 signal connectors

Device connectors, front mounting

- **Flange dimensions: 25 mm x 25 mm**
- Compatible with mating connectors with SPEEDCON and M23 standard knurled nut
- 6- to 19-pos. versions, solder or crimp connection
- Individual marking of connectors with color rings



6- and 7-pos.



8+1-pos., 12-pos.

Description	Ordering data				Ordering data			
	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.	
Device connector, with contact carrier, with female contacts, solder connection, flat gasket	1619993	1	1619989	1	1619973	1	1619969	1
Device connector, with contact carrier, with male contacts, solder connection, flat gasket	1619992	1	1619988	1	1619972	1	1619968	1
Device connector, with contact carrier, without contacts, for female assembly, crimp connection, flat gasket	1619991	1	1619987	1	1619971	1	1619967	1
Device connector, with contact carrier, without contacts, for male assembly, crimp connection, flat gasket	1619990	1	1619986	1	1619970	1	1619966	1
	Accessories				Accessories			
For crimp connection: crimp contacts	Order separately, see page 105 onwards				Order separately, see page 105 onwards			
Color rings, 50 pcs. in set (to be ordered separately)	See page 180				See page 180			
Protective caps (to be ordered separately)	See page 181				See page 181			



17-pos., 16+3-pos.



16+2+PE-pos.

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
17-pos.		16+3-pos.	

1619961	1	1619957	1
---------	---	---------	---

1619960	1	1619956	1
---------	---	---------	---

1619959	1
---------	---

1619958	1
---------	---

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
16+2+PE-pos.			

1624015	1
---------	---

1624014	1
---------	---

Accessories

Order separately, see page 105 onwards
See page 180
See page 181

Accessories

Order separately, see page 105 onwards
See page 180
See page 181

Circular connectors

M23 signal connectors

Device connectors, rear mounting

- Compatible with mating connectors with SPEEDCON and M23 standard knurled nut
- 6- to 19-pos. versions, solder or crimp connection
- Individual marking of connectors with color rings



6- and 7-pos.



8+1-pos., 12-pos.

Description	Ordering data				Ordering data			
	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.	
Device connector, with contact carrier, with female contacts, solder connection, central fixing nut, axial seal	1619851	1	1619847	1	1619843	1	1619790	1
Device connector, with contact carrier, with male contacts, solder connection, central fixing nut, axial seal	1619850	1	1619846	1	1619842	1	1619789	1
Device connector, with contact carrier, without contacts, for female assembly, crimp connection, central fixing nut, axial seal	1619849	1	1619845	1	1619841	1	1619788	1
Device connector, with contact carrier, without contacts, for male assembly, crimp connection, central fixing nut, axial seal	1619848	1	1619844	1	1619791	1	1619787	1
Accessories				Accessories				
For crimp connection: crimp contacts	Order separately, see page 105 onwards				Order separately, see page 105 onwards			
Color rings, 50 pcs. in set (to be ordered separately)	See page 180				See page 180			
Protective caps (to be ordered separately)	See page 181				See page 181			



17-pos., 16+3-pos.



16+3-pos., 16+2+PE-pos.

Ordering data				Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
17-pos.		16+3-pos.		16+2+PE-pos.			
1619782	1	1619778	1				
1619781	1	1619777	1				
1619780	1			1624021	1		
1619779	1			1624020	1		
Accessories				Accessories			
Order separately, see page 105 onwards				Order separately, see page 105 onwards			
See page 180				See page 180			
See page 181				See page 181			

Circular connectors

M23 signal connectors

Device connectors,
angled, rotatable,
front mounting

- Compatible with mating connectors with SPEEDCON and M23 standard knurled nut
- Flange dimensions: 26 mm x 26 mm



8+1-, 12-, 17-pos.

Description
Device connector, with contact carrier, with male contacts, solder connection, angled, rotatable, axial seal
Device connector, with contact carrier, without contacts, for male assembly, crimp connection, angled, rotatable, axial seal

Ordering data					
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
8+1-pos.		12-pos.		17-pos.	
1621746	1	1621741	1	1621745	1
1621735	1	1621738	1	1621744	1
Accessories					
For crimp connection: crimp contacts			Order separately, see page 105 onwards		
Color rings, 50 pcs. in set (to be ordered separately)			See page 180		

Crimp contacts

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



Punched-rolled crimp contacts



Turned crimp contacts

ERC

Ordering data		
Type	Order No.	Pcs./Pkt.
Crimp contact for contact carriers, 6-pos., 6 x Ø2.0 mm		
	Male Ø 2.0 mm / 1.0 ... 1.5	
	Female Ø 2.0 mm / 1.0 ... 1.5	
	Male Ø 2.0 mm / 1.5 ... 2.5	
Crimp contact for contact carriers, 7-pos., 7 x Ø2.0 mm		
	Male Ø 2.0 mm / 1.0 ... 1.5	
	Female Ø 2.0 mm / 1.0 ... 1.5	
	Male Ø 2.0 mm / 1.5 ... 2.5	
Crimp contact for contact carriers, 9-pos. (8+1), 8 x Ø1.0 mm, 1 x Ø2.0 mm		
	Male Ø1.0 mm / 0.14 ... 0.56	
	Female Ø1.0 mm / 0.14 ... 0.56	
	Male Ø 2.0 mm / 1.5 ... 2.5	
Crimp contact for contact carriers, 12-pos., 12 x Ø 1.0 mm and 17-pos., 17 x Ø 1.0 mm		
	Male Ø 1.0 mm / 0.08 ... 0.22	
	Female Ø 1.0 mm / 0.08 ... 0.22	
	Male Ø1.0 mm / 0.14 ... 0.56	
Crimp contact for contact carriers, 12-pos., 12 x Ø 1.0 mm and 17-pos., 17 x Ø 1.0 mm		
	Female Ø1.0 mm / 0.14 ... 0.56	
	Male Ø 1.0 mm / 0.5 ... 1.0	
	Female Ø 1.0 mm / 0.5 ... 1.0	
Crimp contact for contact carriers, 12-pos., 12 x Ø 1.0 mm and 17-pos., 17 x Ø 1.0 mm		
	Single contact male Ø 1.0 mm / 0.22 ... 0.56	
	Single contact female Ø 1.0 mm / 0.22 ... 0.56	
	Roll with 500 pieces, male Ø 1.0 mm / 0.22 ... 0.56	
Crimp contact for contact carriers, 19-pos. (16+2+PE), 16 x Ø1.0 mm, 2 x Ø1.5 mm, 1 x Ø1.5 mm (PE)		
	Male Ø 1.0 mm / 0.08 ... 0.22	
	Male Ø 1.0 mm / 0.14 ... 0.56	
	Male Ø 1.0 mm / 0.5 ... 1.0	
Crimp contact for contact carrier, 19-pos. (16+2+PE), 2 x Ø 1.5 mm		
	Male Ø 1.5 mm / 0.75 ... 1.0	
	Female Ø 1.5 mm / 0.75 ... 1.0	
	Male, leading Ø 1.5 mm / 0.75 ... 1.0	
Crimp contact for contact carrier, 19-pos. (16+2+PE), 1 x Ø 1.5 mm		
	Male, leading Ø 1.5 mm / 0.75 ... 1.0	

ERC

Ordering data		
Type	Order No.	Pcs./Pkt.
RC-5CP2000	1603513	50
	1603517	50
	1603505	50
	1603509	50
RC-5CS2000	1603513	50
	1603517	50
	1603505	50
	1603509	50
RC-12P2000	1597862	100
	1599600	100
	1603505	50
	1603509	50
RC-11P2000	1596770	100
	1596772	100
	1597862	100
	1599600	100
RC-12S2000	1602996	100
	1602998	100
RC-15P2010	1623776	100
	1623777	100
	1623778	100
RC-15P2000	1623779	100
	1623775	100
RC-15P2100	1623780	100

Accessories

Crimping tools

See page 176

Accessories

See page 176

Circular connectors

M23 feedback 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)
Connection technology:	Crimp connection
Sealing and O-ring:	Fluororubber (FPM)
Ambient temperature:	-20°C ... 125°C
Cable entry:	Cable and coupler connectors for an outer cable diameter of 3 to 14.5 mm, shielded
Type of locking:	M23 SPEEDCON screw locking, cable connector with M23 x 1 coarse-pitch thread as an option
Mechanical insertion cycles:	Standard: 100, punched-rolled C-HC crimp contacts: up to 500
Protection class:	IP67 when locked

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 in accordance with DIN EN 61984:2009			
Rated voltage	[V AC/DC]	150	100
Test/surge voltage	[kV]	2.5	1.5
Overvoltage category		III	III
Pollution degree ²⁾		3	3
Installation altitude	[m]	Up to 3000	Up to 3000
Cable clamping area ³⁾	Max. Ø [mm]	14.5	14.5

¹⁾ Determine the effective current carrying capacity depending on the application, if necessary, using a derating curve.

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

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

Note:

In contrast to connecting equipment, connectors may only be plugged in / unplugged when the power supply is disconnected.

Contact chamber numbering (view of plug-in side)				
Direction of rotation for contact chamber numbering (view of plug-in side)				
	Forward running (standard) R marked	Reverse running (standard) L marked	Reverse running (counter direction) L marked	Forward running (counter direction) R marked
Number of positions	Male	Female	Male	Female
12-pos. N-coding Crimp				
17-pos. N-coding Crimp				

Note:
The standard coding is "N". Other codings and numbers of positions available on request.

The connectors can be assembled with male or female contacts depending on the application.

For safety reasons, only use female contacts in the live part of the connector.

Circular connectors

M23 feedback connectors

Selection guide

M23 feedback connectors

12- and 17-pos., N-coding, up to
8 A / 150 V, crimp ranges up to 1 mm²

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

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

Every housing type can be assembled
with male or female contacts.

The connectors are available with
forward or reverse running contact
chamber numbering.

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

The product chart provides an overview
of the available components.

Connector type

Cable connectors

SPEEDCON fast locking system,
see page 110.

M23 x 1 standard locking,
see page 110.



Square mounting flange for
cable and coupler connectors for
wall mounting,
see page 179.

Shielded

Coupler connectors

See page 111.



Square mounting flange for
cable and coupler connectors for
wall mounting,
see page 179.

Shielded

Device connectors

Straight, 4-hole mounting
Ø 3.2, see page 112.



Contact carrier for snapping in from the device side,
straight, 4-hole mounting Ø 3.2,
see page 112.



Angled, rotatable,
flange dimensions: 26 mm x 26 mm,
see page 112.



Angled, rotatable,
flange dimensions: 28 mm x 28 mm,
see page 112.



Shielded

Crimp contacts

Female contacts

Turned, see page 113.



Male contacts

Turned, see page 113.



All housings can be fitted with male or female crimp contacts

Tools/accessories

Crimping tools

Crimping pliers with digital display for turned crimp contacts, see page 177.



Tools/accessories

Unlocking tool for device connectors with contact carriers for snapping in from the device side, see page 179.



Color rings for individually marking the connectors, see page 180.

**Note:**

For safety reasons, only use female contacts in the live part of the connector.

Circular connectors

M23 feedback connectors

Cable connectors, SPEEDCON fast locking system

- 12- and 17-pos. versions
- Individual marking of connectors with color rings



Cable connector,
female assembly



Cable connector,
male assembly

Ordering data

Description Cable clamping area

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.

Cable connector, with contact carrier, **without** contacts, **standard** direction of rotation

Universal gasket	3 mm ... 14.5 mm	1619472	1	1619470	1
	4 mm ... 6 mm	1619466	1	1619464	1
	6 mm ... 10 mm	1619460	1	1619458	1
	10 mm ... 14.5 mm	1619454	1	1619452	1

--	--	--	--

Cable connector, with contact carrier, **without** contacts, **direction reverse** of rotation

Universal gasket	3 mm ... 14.5 mm	1619474	1		
	4 mm ... 6 mm	1619468	1		
	6 mm ... 10 mm	1619462	1		
	10 mm ... 14.5 mm	1619456	1		

--	--	--	--

Accessories

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

For female contacts, see page 113 onwards
See page 180

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.

12-pos.		1619471	1	1619469	1
		1619465	1	1619463	1
		1619459	1	1619457	1
		1619453	1	1619451	1

--	--	--	--

Accessories

For male contacts, see page 113 onwards
See page 180

Cable connectors, M23 standard locking

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



Cable connector,
female assembly



Cable connector,
male assembly

Ordering data

Description Cable clamping area

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.

Cable connector housing, with contact carrier, **without** contacts, **standard** direction of rotation

Universal gasket	3 mm ... 14.5 mm	1619631	1	1619629	1
	4 mm ... 6 mm	1619625	1	1619623	1
	6 mm ... 10 mm	1619616	1	1619614	1
	10 mm ... 14.5 mm	1619610	1	1619608	1

--	--	--	--

Cable connector housing, with contact carrier, **without** contacts, **reverse** direction of rotation

Universal gasket	3 mm ... 14.5 mm	1619633	1		
	4 mm ... 6 mm	1619627	1		
	6 mm ... 10 mm	1619618	1		
	10 mm ... 14.5 mm	1619612	1		

--	--	--	--

Accessories

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

For female contacts, see page 113 onwards
See page 180

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.

12-pos.		1619630	1	1619628	1
		1619624	1	1619619	1
		1619615	1	1619613	1
		1619609	1	1619607	1

--	--	--	--

Accessories

For male contacts, see page 113 onwards
See page 180

Coupler connectors

- Compatible with mating connectors with SPEEDCON and M23 standard knurled nut
- 12- and 17-pos. versions
- Individual marking of connectors with color rings

Coupler connector,
female assemblyCoupler connector,
male 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 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 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		For female contacts, see page 113 onwards				For male contacts, see page 113 onwards			
Color rings, 50 pcs. in set (to be ordered separately)		See page 180				See page 180			

Circular connectors

M23 feedback connectors

Device connectors, straight, front mounting

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



Device connector, straight, female assembly



Device connector, straight, male 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 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 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								
Crimp contacts	For female contacts, see page 113 onwards				For male contacts, see page 113 onwards			
Color rings, 50 pcs. in set (to be ordered separately)	See page 180				See page 180			
Protective caps (to be ordered separately)	See page 181				See page 181			

Device connectors, angled, rotatable, front mounting

- Compatible with mating connectors with SPEEDCON and M23 standard knurled nut
- **Flange dimensions: 26 mm x 26 mm or 28 mm x 28 mm**



Device connectors, angled, rotatable, female assembly



Device connectors, angled, rotatable, male 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 connector, angled, rotatable , with contact carrier, without contacts, flange dimensions: 26 mm x 26 mm								
Standard direction of rotation	1607280	1	1607345	1	1607233	16	1607328	1
Reverse direction of rotation	1607304	1			1607257	1		
Device 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								
Crimp contacts	For female contacts, see page 113 onwards				For male contacts, see page 113 onwards			
Color rings, 50 pcs. in set (to be ordered separately)	See page 180				See page 180			
Protective caps (to be ordered separately)	See page 181				See page 181			

Crimp contacts, turned

Depending on the number of positions, assemble the M23 feedback connectors with 12 or 17 Ø 1 mm signal contacts from the SF series.

These contacts are also used as signal contacts with the M23 power connectors. This simplifies handling and storage considerably.

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



Crimp contacts, female



Crimp contacts, male

		Ordering data			Ordering data		
Description	Connection cross section [mm ²]	Type	Order No.	Pcs./Pkt.	Type	Order No.	Pcs./Pkt.
Contact female 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 male 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 177			Order separately, see page 177		

Notes:

Each connector housing type can be assembled with male or female contacts.

For safety reasons, only use male contacts in the live part of the connector.

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)
Connection technology:	Crimp connection
Sealing and O-ring:	Fluororubber (FPM)
Ambient temperature:	-40°C ... 130°C
Cable entry:	Cable and coupler connectors for an outer cable diameter of 7.5 to 18 mm, shielded
Type of locking:	M23 SPEEDCON screw locking
Mechanical insertion cycles:	Standard: 100
Protection class:	IP67 when locked

Electrical data

Number of positions			13 (4 + 4 + 4 + PE), CAT5 (100 Mbps)						13 (8 + 4 + PE)					
Contacts			4	+	4	+	4	+	PE	8	+	4	+	PE
Contact Ø [mm]			0.8		1.0		2.0		2.0	1.0		2.0		2.0
Litz wire cross sections														
Cable and coupler connectors:														
Cable Ø max. 18 mm [mm²]			0.08 ... 0.5		0.06 ... 1.0		0.25 ... 4.0		0.25 ... 4.0	0.06 ... 1.0		0.25 ... 4.0		0.25 ... 4.0
Device connectors: [mm²]			0.08 ... 0.5		0.06 ... 1.0		0.25 ... 4.0		0.25 ... 4.0	0.06 ... 1.0		0.25 ... 4.0		0.25 ... 4.0
Nominal current per contact at 25°C ¹⁾ [A]			3.6		8		30		-	8		30		-
Specifications in accordance with DIN EN 61984:2009														
Rated voltage [V AC/DC]			50/50		50/50		630/850		-	50/50		630/850		-
Test/surge voltage [kV AC]			1.5		1.5		6		-	1.5		6		-
Overvoltage category [AC/DC]					III / II		-					III / II		-
Pollution degree ²⁾							3						3	
Cable clamping area ³⁾ Max. Ø [mm]							18						18	

¹⁾ Determine the effective current carrying capacity depending on the application, if necessary, using a derating curve.

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

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

Courtesy of Steven Engineering, Inc. - (800) 258-9200 - sales@steveng.com - www.stevenengineering.com

Circular connectors

M23 hybrid connectors

Selection guide

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

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

The connectors are pre-assembled on delivery. The connectors can be furnished with the corresponding crimp contacts.

The product chart provides an overview of the available components.

Connector type

Cable connectors

SPEEDCON fast locking system, see page 118.

M23 x 1 standard interlocking, see page 118.



Shielded

Coupler connectors

See page 119.



Shielded

Device connectors

Straight, front mounting see page 119.



Angled, rotatable, flange dimensions: 26 mm x 26 mm, see page 120.



Straight, rear mounting see page 120.



Angled, rotatable, flange dimensions: 28 mm x 28 mm see page 120.



Shielded

Crimp contacts

Female contacts

Turned, see page 121.



Male contacts

Turned, see page 121.



All housings can be fitted with male or female crimp contacts

Tools/accessories

Crimping pliers with digital display for turned crimp contacts, see page 177.



Accessories

Color rings for individually marking the connectors, see page 180.

**Note:**

For safety reasons, only use female contacts in the live part of the connector.

Circular connectors

M23 hybrid connectors

Cable connectors, hybrid, SPEEDCON fast locking system

- 4x power+PE, 4x signal,
4x data (CAT5, 100 Mbps)
- 4x power+PE, 8x signal



Cable connector,
female assembly



Cable connector,
male assembly

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
4 x signal + CAT5		8 x signal	

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
4 x signal + CAT5		8 x signal	

Description	Cable clamping area
Cable connector , with contact carrier, without contacts, crimp connection	
Universal gasket	7.5 mm ... 18 mm
	7.5 mm ... 9 mm
	9 mm ... 12 mm
	12 mm ... 15 mm
	15 mm ... 18 mm

1621517	1	1621524	1
1621520	1	1621525	1
1621521	1	1621526	1
1621522	1	1621527	1
1621523	1	1621528	1

1621529	1	1621534	1
1621530	1	1621535	1
1621531	1	1621536	1
1621532	1	1621537	1
1621533	1	1621538	1

Accessories

KC-88014311/1,00	1623127	1
KC-88014311/20,00	1622080	1
KC-88014311/100,00	1623039	1

Accessories

KC-88014311/1,00	1623127	1
KC-88014311/20,00	1622080	1
KC-88014311/100,00	1623039	1

M23 hybrid cable, (5 x 2.5 + 2 x (2 x 0.5) + (4 x 22 AWG)C)C

Length of cable: 1 m
Length of cable: 20 m
Length of cable: 100 m

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

See page 121
See page 180
See page 181

See page 121
See page 180
See page 181

Cable connectors, hybrid, standard locking

- 4x power+PE, 4x signal,
4x data (CAT5, 100 Mbps)
- 4x power+PE, 8x signal



Cable connector,
female assembly



Cable connector,
male assembly

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
4 x signal + CAT5		8 x signal	

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
4 x signal + CAT5		8 x signal	

Description	Cable clamping area
Cable connector , with contact carrier, without contacts, crimp connection	
Universal gasket	7.5 mm ... 18 mm
	7.5 mm ... 9 mm
	9 mm ... 12 mm
	12 mm ... 15 mm
	15 mm ... 18 mm

1621997	1	1622002	1
1621998	1	1622003	1
1621999	1	1622004	1
1622000	1	1622005	1
1622001	1	1622006	1

1622007	1	1622012	1
1622008	1	1622013	1
1622009	1	1622014	1
1622010	1	1622015	1
1622011	1	1622016	1

Accessories

KC-88014311/1,00	1623127	1
KC-88014311/20,00	1622080	1
KC-88014311/100,00	1623039	1

Accessories

KC-88014311/1,00	1623127	1
KC-88014311/20,00	1622080	1
KC-88014311/100,00	1623039	1

M23 hybrid cable, (5 x 2.5 + 2 x (2 x 0.5) + (4 x 22 AWG)C)C

Length of cable: 1 m
Length of cable: 20 m
Length of cable: 100 m

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

See page 121
See page 180
See page 181

See page 121
See page 180
See page 181

Coupler connectors, hybrid

- Compatible with mating connectors with SPEEDCON and M23 standard knurled nut
- 4x power+PE, 4x signal, 4x data (CAT5, 100 Mbps)
- 4x power+PE, 8x signal

Coupler connector,
female assemblyCoupler connector,
male assembly

Description		Ordering data				Ordering data			
Cable clamping area		Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
		4 x signal + CAT5		8 x signal		4 x signal + CAT5		8 x signal	
Coupler connector , with contact carrier, without contacts, crimp connection									
Universal gasket	7.5 mm ... 18 mm	1621539	1	1621544	1	1621549	1	1621554	1
	7.5 mm ... 9 mm	1621540	1	1621545	1	1621550	1	1621555	1
	9 mm ... 12 mm	1621541	1	1621546	1	1621551	1	1621556	1
	12 mm ... 15 mm	1621542	1	1621547	1	1621552	1	1621557	1
	15 mm ... 18 mm	1621543	1	1621548	1	1621553	1	1621558	1
		Accessories				Accessories			
M23 hybrid cable , (5 x 2.5 + 2 x (2 x 0.5) + (4 x 22 AWG)C)C									
Length of cable: 1 m		KC-88014311/1,00		1623127	1	KC-88014311/1,00		1623127	1
Length of cable: 20 m		KC-88014311/20,00		1622080	1	KC-88014311/20,00		1622080	1
Length of cable: 100 m		KC-88014311/100,00		1623039	1	KC-88014311/100,00		1623039	1
Crimp contacts		See page 121				See page 121			
Color rings , 50 pcs. in set (to be ordered separately)		See page 180				See page 180			
Protective caps (to be ordered separately)		See page 181				See page 181			

Device connectors, hybrid,
straight, front mounting

- The external thread is designed for the standard and SPEEDCON fast locking system
- 4x power+PE, 4x signal, 4x data (CAT5, 100 Mbps)
- 4x power+PE, 8x signal

Device connector, straight,
female assemblyDevice connector, straight,
male assembly

Description		Ordering data				Ordering data			
		Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
		4 x signal + CAT5		8 x signal		4 x signal + CAT5		8 x signal	
Device connector , with contact carrier, without contacts									
Flange dimensions: 26 mm x 26 mm		1621567	1	1621568	1	1621569	1	1621570	1
		Accessories				Accessories			
Crimp contacts		See page 121				See page 121			
Color rings , 50 pcs. in set (to be ordered separately)		See page 180				See page 180			
Protective caps (to be ordered separately)		See page 181				See page 181			

Circular connectors

M23 hybrid connectors

Device connectors, hybrid, straight, rear mounting

- Compatible with mating connectors with SPEEDCON and M23 standard knurled nut
- 4x power+PE, 4x signal, 4x data (CAT5, 100 Mbps)
- 4x power+PE, 8x signal



Device connector, straight, female assembly



Device connector, straight, male assembly

Description	Ordering data				Ordering data			
	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
Device connector, with contact carrier, without contacts	4 x signal + CAT5		8 x signal		4 x signal + CAT5		8 x signal	
	1624344	1	1627204	1	1627205	1	1627206	1
Description	Accessories				Accessories			
Crimp contacts	See page 121				See page 121			
Color rings, 50 pcs. in set (to be ordered separately)	See page 180				See page 180			
Protective caps (to be ordered separately)	See page 181				See page 181			

Device connectors, hybrid, angled, rotatable, front mounting

- The external thread is designed for the standard and SPEEDCON fast locking system
- 4x power+PE, 4x signal, 4x data (CAT5, 100 Mbps)
- 4x power+PE, 8x signal
- Housing can be freely rotated by 310°



Device connector, angled, rotatable, female assembly



Device connector, angled, rotatable, male assembly

Description	Ordering data				Ordering data			
	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
Device connector, with contact carrier, without contacts	4 x signal + CAT5		8 x signal		4 x signal + CAT5		8 x signal	
	1621563	1	1621564	1	1621565	1	1621566	1
Flange dimensions: 26 mm x 26 mm								
Device connector, with contact carrier, without contacts	4 x signal + CAT5		8 x signal		4 x signal + CAT5		8 x signal	
	1621559	1	1621560	1	1621561	1	1621562	1
Flange dimensions: 28 mm x 28 mm								
Description	Accessories				Accessories			
Crimp contacts	See page 121				See page 121			
Color rings, 50 pcs. in set (to be ordered separately)	See page 180				See page 180			
Protective caps (to be ordered separately)	See page 181				See page 181			

Crimp contacts, turned



Crimp contacts, female



Crimp contacts, male

		Ordering data			Ordering data		
Description	Connection cross section [mm ²]	Type	Order No.	Pcs./Pkt.	Type	Order No.	Pcs./Pkt.
Contact, Ø 0.8 mm	0.08 ... 0.25	SF-08KS010	1621571	100	SF-08KP010	1621574	100
	0.34 ... 0.50	SF-08KS020	1621573	100	SF-08KP020	1621575	100
Contact, Ø 1.0 mm, for signal	0.06 ... 0.25	ST-10KS010	1618239	100	ST-10KP010	1618255	100
	0.34 ... 0.50	ST-10KS020	1618251	100	ST-10KP020	1618256	100
	0.25 ... 1.0	ST-10KS035	1618464	100	ST-10KP035	1618458	100
Contact, Ø 2.0 mm	0.25 ... 1.0	SF-20KS021	1621576	50	SF-20KP021	1621579	50
	1.0 ... 2.5	SF-20KS022	1621577	50	SF-20KP022	1621580	50
	2.5 ... 4.0	SF-20KS023	1621578	50	SF-20KP023	1621581	50

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)
Connection technology:	Crimp connection
Sealing and O-ring:	Fluororubber (FPM)
Ambient temperature:	-40°C ... 130°C
Cable entry:	Cable and coupler connectors for an outer cable diameter of 9 to 26.5 mm, shielded
Type of locking:	M40 SPEEDCON screw locking
Mechanical insertion cycles:	Standard: 100
Protection class:	IP68/IP69K when locked

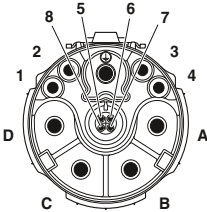
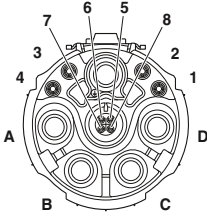
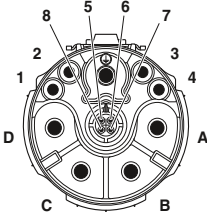
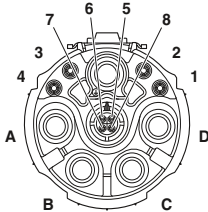
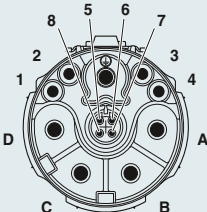
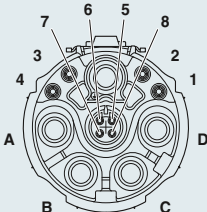
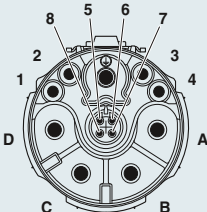
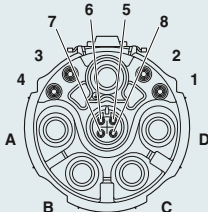
Electrical data

Number of positions			13 (4 + 4 + 4 + PE), CAT5 (100 Mbps)				13 (4 + 4 + 4 + PE), signal				
Contacts			4	+	4	+	4	+	4	+	PE
Contact Ø [mm]			0.8	1.0	3.6	3.6	1.0	1.0	3.6	3.6	
Litz wire cross sections											
Cable and coupler connectors:											
Cable Ø max. 26.5 mm [mm²]			0.08 ... 0.5	0.06 ... 1.5	2.5 ... 16.0	2.5 ... 16.0	0.06 ... 1.0	0.06 ... 1.5	2.5 ... 16.0	2.5 ... 16.0	
Device connectors: [mm²]			0.08 ... 0.5	0.06 ... 1.5	2.5 ... 10.0	2.5 ... 10.0	0.06 ... 1.0	0.06 ... 1.5	2.5 ... 10.0	2.5 ... 10.0	
Nominal current per contact at 25°C ¹⁾ [A]			3.6	8	70	–	8	8	70	–	
Specifications in accordance with DIN EN 61984:2009											
Rated voltage [V AC/DC]			50/50	500/500	630/850	–	50/50	500/500	630/850	–	
Test/surge voltage [kV AC]			1.5	4	6	–	1.5	4	6	–	
Overvoltage category [AC/DC]			III / II				III / II				
Pollution degree ²⁾			3				3				
Installation altitude [m]			Up to 3000				Up to 3000				
Cable clamping area ³⁾ Max. Ø [mm]			26.5				26.5				

¹⁾ Determine the effective current carrying capacity depending on the application, if necessary, using a derating curve.

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

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

Contact chamber numbering (view of plug-in side)				
Number of positions	Male AC-coded	Female AC-coded	Male DC-coded	Female DC-coded
13-pos., CAT5 (100 Mbps) (4 + 4 + 4 + PE) Crimp				
13-pos., signal (4 + 4 + 4 + PE) Crimp				

Circular connectors

M40 hybrid connectors

Selection guide

M40 hybrid connectors up to
70 A/630 V AC/850 V DC,
crimp ranges up to 16 mm²

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

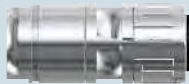
The connectors are pre-assembled on
delivery. The connectors can be furnished
with the corresponding crimp contacts.

The product chart provides an overview
of the available components.

Connector type

Cable connectors

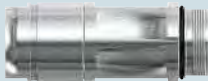
SPEEDCON fast locking system,
see page 126.



Shielded

Coupler connectors

See page 127.



Shielded

Device connectors

Straight,
see page 128.



Angled, rotatable,
see page 128.



Shielded

Crimp contacts

Female contacts

Turned, see page 129.



Male contacts

Turned, see page 129.



Tools/accessories

Crimping pliers with digital display for turned crimp contacts, see page 177.



Accessories

Color rings for individually marking the connectors, see page 180.



All housings can be fitted with male or female crimp contacts

Note:

For safety reasons, only use female contacts in the live part of the connector.

Circular connectors

M40 hybrid connectors

Cable connectors, hybrid, SPEEDCON fast locking system

- 4x power+PE, 4x signal,
4x data (CAT5, 100 Mbps)
- 4x power+PE, 8x signal



Cable connector,
female assembly



Cable connector,
male assembly

		Ordering data				Ordering data			
Description	Cable clamping area	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
		4+4+4+PE-pos. (CAT5)		4+4+4+PE-pos. (signal)		4+4+4+PE-pos. (CAT5)		4+4+4+PE-pos. (signal)	
Cable connector, AC-coded, with contact carrier, without contacts, crimp connection									
Universal gasket	9 mm ... 14 mm	1623324	1	1623329	1	1623332	1	1623335	1
	14 mm ... 20.5 mm	1623327	1	1623330	1	1623333	1	1623336	1
	20.5 mm ... 26.5 mm	1623328	1	1623331	1	1623334	1	1623337	1
Cable connector, DC-coded, with contact carrier, without contacts, crimp connection									
Universal gasket	9 mm ... 14 mm	1623683	1	1623686	1	1623692	1	1623695	1
	14 mm ... 20.5 mm	1623684	1	1623687	1	1623693	1	1623696	1
	20.5 mm ... 26.5 mm	1623685	1	1623688	1	1623694	1	1623697	1
		Accessories				Accessories			
M40 hybrid cable, (5 x 10 + 2 x (2 x 0.5) + (4 x 22 AWG)C)C									
Length of cable: 1 m		KC-88014448/1,00		1627298	1	KC-88014448/1,00		1627298	1
Length of cable: 20 m		KC-88014448/20,00		1627299	1	KC-88014448/20,00		1627299	1
Crimp contacts		see page 129				see page 129			
Color rings, 50 pcs. in set (to be ordered separately)		See page 180				See page 180			
Protective caps (to be ordered separately)		See page 181				See page 181			

Coupler connectors, hybrid, M40 standard locking

- Compatible with mating connectors with SPEEDCON and M40 standard knurled nut
- 4x power+PE, 4x signal, 4x data (CAT5, 100 Mbps)
- 4x power+PE, 8x signal



Coupler connector,
female assembly



Coupler connector,
male assembly

		Ordering data				Ordering data			
Description	Cable clamping area	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
		4+4+4+PE-pos. (CAT5)		4+4+4+PE-pos. (signal)		4+4+4+PE-pos. (CAT5)		4+4+4+PE-pos. (signal)	
Coupler connector, AC-coded, with contact carrier, without contacts, crimp connection									
Universal gasket	9 mm ... 14 mm	1623339	1	1623344	1	1623356	1	1623359	1
	14 mm ... 20.5 mm	1623341	1	1623345	1	1623357	1	1623360	1
	20.5 mm ... 26.5 mm	1623342	1	1623346	1	1623358	1	1623361	1
Coupler connector, DC-coded, with contact carrier, without contacts, crimp connection									
Universal gasket	9 mm ... 14 mm	1623701	1	1623704	1	1623710	1	1623713	1
	14 mm ... 20.5 mm	1623702	1	1623705	1	1623711	1	1623714	1
	20.5 mm ... 26.5 mm	1623703	1	1623706	1	1623712	1	1623715	1
		Accessories				Accessories			
M40 hybrid cable, (5 x 10 + 2 x (2 x 0.5) + (4 x 22 AWG)C)C									
Length of cable: 1 m		KC-88014448/1,00		1627298	1	KC-88014448/1,00		1627298	1
Length of cable: 20 m		KC-88014448/20,00		1627299	1	KC-88014448/20,00		1627299	1
Crimp contacts		see page 129				see page 129			
Color rings, 50 pcs. in set (to be ordered separately)		See page 180				See page 180			
Protective caps (to be ordered separately)		See page 181				See page 181			

Circular connectors

M40 hybrid connectors

Device connectors, hybrid, straight, front mounting

- The external thread is designed for the standard and SPEEDCON fast locking system
- 4x power+PE, 4x signal, 4x data (CAT5, 100 Mbps)
- 4x power+PE, 8x signal



Device connector, straight, female assembly



Device connector, straight, male assembly

	Ordering data				Ordering data			
Description	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
	4+4+4+PE-pos. (CAT5)		4+4+4+PE-pos. (signal)		4+4+4+PE-pos. (CAT5)		4+4+4+PE-pos. (signal)	
Device connector, AC-coded, with contact carrier, without contacts, crimp connection								
Flange dimensions: 40 mm x 40 mm	1623371	1	1623372	1	1623374	1	1623375	1
Device connector, DC-coded, with contact carrier, without contacts, crimp connection								
Flange dimensions: 40 mm x 40 mm	1623725	1	1623726	1	1623728	1	1623729	1
	Accessories				Accessories			
Crimp contacts	see page 129				see page 129			
Color rings, 50 pcs. in set (to be ordered separately)	See page 180				See page 180			
Protective caps (to be ordered separately)	See page 181				See page 181			

Device connectors, hybrid, angled, rotatable, front mounting

- The external thread is designed for the standard and SPEEDCON fast locking system
- 4x power+PE, 4x signal, 4x data (CAT5, 100 Mbps)
- 4x power+PE, 8x signal



Device connector, angled, rotatable, female assembly



Device connector, angled, rotatable, male assembly

	Ordering data				Ordering data			
Description	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
Device connector, AC-coded , angled, rotatable, with contact carrier, without contacts, crimp connection	4+4+4+PE-pos. (CAT5)		4+4+4+PE-pos. (signal)		4+4+4+PE-pos. (CAT5)		4+4+4+PE-pos. (signal)	
Flange dimensions: 40 mm x 40 mm	1623365	1	1623366	1	1623368	1	1623369	1
Device connector, DC-coded , angled, rotatable, with contact carrier, without contacts, crimp connection								
Flange dimensions: 40 mm x 40 mm	1623719	1	1623720	1	1623722	1	1623723	1
	Accessories				Accessories			
Crimp contacts	see page 129				see page 129			
Color rings, 50 pcs. in set (to be ordered separately)	See page 180				See page 180			
Protective caps (to be ordered separately)	See page 181				See page 181			

Crimp contacts, turned

Notes:

¹⁾ Not for device connector, angled, rotatable



Crimp contacts, female



Crimp contacts, male

		Ordering data			Ordering data		
Description	Connection cross section [mm ²]	Type	Order No.	Pcs./Pkt.	Type	Order No.	Pcs./Pkt.
Contact, Ø 0.8 mm	0.08 ... 0.25	SF-08KS010	1621571	100	SF-08KP010	1621574	100
	0.34 ... 0.50	SF-08KS020	1621573	100	SF-08KP020	1621575	100
Contact, Ø 1.0 mm, for CAT5 and signal	0.06 ... 0.25	SB-10KS001	1623603	100	SB-10KP001	1623607	100
	0.34 ... 0.50	SB-10KS002	1623604	100	SB-10KP002	1623611	100
	0.5 ... 1.0	SB-10KS003	1623605	100	SB-10KP003	1623612	100
	1.0 ... 1.5	SB-10KS004	1623606	100	SB-10KP004	1623613	100
Contact, Ø 1.0 mm, for signal	0.06 ... 0.25	ST-10KS010	1618239	100	ST-10KP010	1618255	100
	0.34 ... 0.50	ST-10KS020	1618251	100	ST-10KP020	1618256	100
	0.25 ... 1.0	ST-10KS035	1618464	100	ST-10KP035	1618458	100
Contact, Ø 3.6 mm	2.5 ... 4.0	SB-36KS002	1623378	20	SB-36KP002	1623383	20
	4.0 ... 6.0	SB-36KS003	1623379	20	SB-36KP003	1623384	20
	10.0	SB-36KS004	1623380	20	SB-36KP004	1623385	20
	16.0 ¹⁾	SB-36KS005	1623381	20	SB-36KP005	1623386	20

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)
Connection technology:	Crimp connection
Sealing and O-ring:	Fluororubber (FKM)
Ambient temperature:	-40°C to 125°C
Cable entry:	Cable and coupler connectors for an outer cable diameter of 3.5 to 11 mm, shielded (M17 Compact) 5 to 12.5 mm, shielded (M17)
Type of locking:	M17 SPEEDCON fast locking system, cable connector With M17 x 1 coarse-pitch thread as an option
Mechanical insertion cycles:	Standard: 100, punched-rolled C-HC crimp contacts: up to 500
Protection class:	IP67 when locked

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
Litz wire cross section, crimp contacts	[mm ²]	0.25 ... 2.5	0.06 ... 1.0	0.06 ... 1.0	0.06 ... 1.0	0.06 ... 0.5		0.06 ... 1.0
Turned								
Litz wire cross section, C-HC crimp contacts	[mm ²]	–	0.08 ... 0.56	0.06 ... 0.56	0.06 ... 0.56	–	–	–
Punched-rolled								
Nominal current per contact at 25°C ¹⁾	[A]	20 (25) ²⁾	14	14	14	3.6	14	–
Specifications in accordance with 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	–
Overvoltage category		III	III	III	III		III	
Pollution degree ³⁾		3	3	3	3		3	
Installation altitude	[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⁾ Determine the effective current carrying capacity in accordance with the application, if necessary, using a derating curve.

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

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

⁴⁾ The cable clamping areas specified on the following pages may vary depending on the cable material and structure. Selection and testing is the responsibility of the user.

Contact chamber numbering (view of plug-in side)		
Number of positions	Male	Female
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 connectors can be assembled with male or female contacts depending on the application.

For safety reasons, only use female contacts in the live part of the connector.

Circular connectors

M17 power connectors

Selection guide

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

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

The connectors are delivered pre-assembled. The connectors can be furnished with the corresponding crimp contacts.

Every housing type can be assembled with male or female contacts. The cable connectors can be equipped with the SPEEDCON fast locking system or with M17 x 1 coarse-pitch thread as an option. The connectors with external thread are fully compatible with standard threads and the SPEEDCON fast locking system.

The product chart provides an overview of the available components.

Connector type

Cable connectors

SPEEDCON fast locking system, M17 Compact, see page 134.



M17, see page 136.



M17 x 1 standard locking, M17, see page 136.



Square mounting flange for cable and coupler connectors for wall mounting, see page 179.



Shielded

Coupler connectors / panel feed-throughs

Coupler connector M17 Compact, see page 134.



M17, see page 137.



Panel feed-through M17 Compact, see page 135.



Shielded

Device connectors

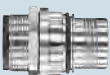
Straight, M17 Compact, see page 135.



Straight, M17, see page 137.



Straight, with central fastening thread, front mounting, M17, see page 139.



Straight, with central fastening thread, rear mounting, M17, see page 139.



Angled, rotatable, M17, see page 138.



Shielded

Crimp contacts

Female contacts

Turned, see page 140.



Male contacts

Turned, see page 140.



All housings can be fitted with male or female crimp contacts

Tools/accessories

Crimping tools

Crimping pliers with digital display for turned crimp contacts, see page 177.



Tools/accessories

Unlocking tool for device connectors with contact carriers for snapping in from the device side, see page 179.



Color rings for individually marking the connectors, see page 180.

**Note:**

For safety reasons, only use female contacts in the live part of the connector.

Circular connectors

M17 power connectors

Cable connectors, M17 Compact

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



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



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

Ordering data

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

Cable connector, with contact carrier, **without** contacts, for **female assembly**

3.5 mm ... 5.5 mm
5 mm ... 9.2 mm
9 mm ... 11.2 mm

Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
3+PE-pos.		5+PE-pos.		6+PE-pos.	
1618312	1	1618621	1	1618632	1
1618408	1	1618620	1	1618631	1
1618603	1	1618619	1	1618630	1

Cable connector, with contact carrier, **without** contacts, for **male assembly**

3.5 mm ... 5.5 mm
5 mm ... 9.2 mm
9 mm ... 11.2 mm

Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
7+PE-pos.		5+3+PE-pos.			
1618602	1	1618614	1	1618622	1
1618574	1	1618615	1	1618623	1
1618575	1	1618616	1	1618624	1

Accessories

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

Order separately, see page 140 onwards
See page 180
See page 181

Ordering data

Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
-----------	------------	-----------	------------	-----------	------------

1618633	1	1618674	1
1618634	1	1618675	1
1618635	1	1618676	1

1618640	1	1618681	1
1618639	1	1618680	1
1618638	1	1618679	1

Accessories

Order separately, see page 140 onwards
See page 180
See page 181

Coupler connectors, M17 Compact

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



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



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

Ordering data

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

Coupler connector, with contact carrier, **without** contacts, for **female assembly**

3.5 mm ... 5.5 mm
5 mm ... 9.2 mm
9 mm ... 11.2 mm

Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
3+PE-pos.		5+PE-pos.		6+PE-pos.	
1618695	1	1618696	1	1618708	1
1618694	1	1618697	1	1618709	1
1618693	1	1618698	1	1618710	1

Coupler connector, with contact carrier, **without** contacts, for **male assembly**

3.5 mm ... 5.5 mm
5 mm ... 9.2 mm
9 mm ... 11.2 mm

Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
7+PE-pos.		5+3+PE-pos.			
1620614	1	1618703	1	1618704	1
1618406	1	1618702	1	1618705	1
1618690	1	1618701	1	1618706	1

Accessories

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

Order separately, see page 140 onwards
See page 180
See page 181

Ordering data

Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.	Order No.	Pcs./ Pkt.
-----------	------------	-----------	------------	-----------	------------

1618716	1	1618748	1
1618717	1	1618749	1
1618718	1	1618750	1

1618712	1	1618740	1
1618713	1	1618741	1
1618714	1	1618742	1

Accessories

Order separately, see page 140 onwards
See page 180
See page 181

Panel feed-throughs, M17 Compact

- Panel feed-throughs suitable for front and rear mounting
- Compatible with mating connectors with SPEEDCON or M17 standard knurled nuts
- Individual marking of 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		Cable clamping area	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.				
Panel feed-through , with contact carrier, without contacts, for female 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 male 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 140 onwards						Order separately, see page 140 onwards						
Color rings, 50 pcs. in set (to be ordered separately)			See page 180						See page 180						
Protective caps (to be ordered separately)			See page 181						See page 181						

Device connectors, M17 Compact, front mounting

- Compatible with mating connectors with SPEEDCON or M17 standard knurled nuts
- Individual marking of 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.



	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 connector, with contact carrier, without contacts, for female assembly												
Contact insert for support on the device	1607694	1	1607728	1	1613589	1	1607769	1	1613631	1		
Device connector, with contact carrier, without contacts, for male assembly												
Contact insert for support on the device	1607675	1	1607711	1	1613570	1	1607747	1	1613612	1		
Device connector, with contact carrier, without contacts, for female assembly												
Contact insert can be snapped in	1607692	1	1607727	1	1613588	1	1607768	1	1613630	1		
Device connector, with contact carrier, without contacts, for male assembly												
Contact insert can be snapped in	1607674	1	1607710	1	1613569	1	1607746	1	1613611	1		
	Accessories						Accessories					
Crimp contacts	Order separately, see page 140 onwards						Order separately, see page 140 onwards					
Color rings, 50 pcs. in set (to be ordered separately)	See page 180						See page 180					
Protective caps (to be ordered separately)	See page 181						See page 181					
Unlocking tool for contact carriers	See page 179						See page 179					

Circular connectors

M17 power connectors

Cable connectors, SPEEDCON fast locking system

- SPEEDCON fast locking system or M17 standard interlocking
- Standard knurled nut compatible with mating connectors with SPEEDCON and M17 standard external thread
- Individual marking of 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.
		3+PE-pos.		5+PE-pos.		6+PE-pos.	
Cable connector, with contact carrier, without contacts, for female assembly							
	5 mm ... 8 mm	1607683	1	1607718	1	1613578	1
	8 mm ... 10 mm	1607685	1	1607720	1	1613580	1
	10 mm ... 12.5 mm	1624538	1	1624544	1	1624550	1
Cable connector, with contact carrier, without contacts, for male assembly							
	5 mm ... 8 mm	1607665	1	1607700	1	1613559	1
	8 mm ... 10 mm	1607667	1	1607702	1	1613561	1
	10 mm ... 12.5 mm	1624535	1	1624541	1	1624547	1
		Accessories			Accessories		
Crimp contacts		Order separately, see page 140 onwards			Order separately, see page 140 onwards		
Color rings, 50 pcs. in set (to be ordered separately)		See page 180			See page 180		
Protective caps (to be ordered separately)		See page 181			See page 181		

Cable connectors, M17 standard locking

- Standard knurled nut compatible with mating connectors with SPEEDCON and M17 standard external thread
- Individual marking of 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.
		3+PE-pos.		5+PE-pos.		6+PE-pos.	
Cable connector, with contact carrier, without contacts, for female assembly							
	5 mm ... 8 mm	1607682	1	1607717	1	1613577	1
	8 mm ... 10 mm	1607684	1	1607719	1	1613579	1
	10 mm ... 12.5 mm	1624537	1	1624543	30	1624549	1
Cable connector, with contact carrier, without contacts, for male assembly							
	5 mm ... 8 mm	1607663	1	1607699	1	1613558	1
	8 mm ... 10 mm	1607666	1	1607701	1	1613560	1
	10 mm ... 12.5 mm	1624534	1	1624540	1	1624546	1
		Accessories			Accessories		
Crimp contacts		Order separately, see page 140 onwards			Order separately, see page 140 onwards		
Color rings, 50 pcs. in set (to be ordered separately)		See page 180			See page 180		
Protective caps (to be ordered separately)		See page 181			See page 181		

Coupler connectors

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



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



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

Description		Cable clamping area	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.				
Coupler connector , with contact carrier, without contacts, for female 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 connector , with contact carrier, without contacts, for male 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 140 onwards						Order separately, see page 140 onwards						
Color rings, 50 pcs. in set (to be ordered separately)			See page 180						See page 180						
Protective caps (to be ordered separately)			See page 181						See page 181						

Device connectors, straight, front mounting

- Compatible with mating connectors with SPEEDCON or M17 standard knurled nuts
- Contact insert for support on the device or can be snapped in
- Individual marking of 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	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 connector , with contact carrier, without contacts, for female assembly	1619189	1	1619191	1	1619193	1	1619195	1	1620459	1		
Contact insert for support on the device												
Device connector , with contact carrier, without contacts, for male assembly	1619186	1	1619190	1	1619192	1	1619194	1	1620460	1		
Contact insert for support on the device												
Device connector , with contact carrier, without contacts, for female assembly	1619212	1	1619214	1	1619216	1	1619218	1	1620461	1		
Contact insert can be snapped in												
Device connector , with contact carrier, without contacts, for male assembly	1619209	1	1619213	1	1619215	1	1619217	1	1620462	1		
Contact insert can be snapped in												
	Accessories						Accessories					
Crimp contacts	Order separately, see page 140 onwards						Order separately, see page 140 onwards					
Color rings, 50 pcs. in set (to be ordered separately)	See page 180						See page 180					
Protective caps (to be ordered separately)	See page 181						See page 181					
Unlocking tool for contact carriers	See page 179						See page 179					

Circular connectors

M17 power connectors

Device connectors, angled, rotatable, front mounting

- Compatible with mating connectors with SPEEDCON or M17 standard knurled nuts
- Housing can be freely rotated up to 308°
- Individual marking of connectors with color rings
- Flange versions for M2.5 or M3 fixing
- **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 connector, angled, rotatable, with contact carrier, without contacts, for female contacts												
Fixing with M2.5	1620428	1	1620432	1	1620434	1	1620436	1	1620438	1		
Device connector, angled, rotatable, with contact carrier, without contacts, for male contacts												
Fixing with M2.5	1620427	1	1620431	1	1620433	1	1620435	1	1620437	1		
Device connector, angled, rotatable, with contact carrier, without contacts, for female contacts												
Fixing with M3	1620443	1	1620447	1	1620449	1	1620451	1	1620453	1		
Device connector, angled, rotatable, with contact carrier, without contacts, for male contacts												
Fixing with M3	1620444	1	1620448	1	1620450	1	1620452	1	1620454	1		
Accessories												
Crimp contacts	Order separately, see page 140 onwards						Order separately, see page 140 onwards					
Color rings, 50 pcs. in set (to be ordered separately)	See page 180						See page 180					
Protective caps (to be ordered separately)	See page 181						See page 181					

**Device connectors,
central fastening thread,
front and rear mounting**

- Compatible with mating connectors with SPEEDCON or M17 standard knurled nuts
- Snapping in the contact carriers from the device side
- Individual marking of connectors with color rings



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 connector,front mounting, M18 x 0.75 fastening thread, with contact carrier, without contacts, for female contacts	1613546	1	1613550	1	1613572	1	1613592	1	1613614	1		
Device connector, front mounting, M18 x 0.75 fastening thread, with contact carrier, without contacts, for male contacts	1613544	1	1613548	1	1613553	1	1613590	1	1613595	1		
Device connector,rear mounting, M20 x 1.5 fastening thread, with contact carrier, without contacts, for female contacts	1613547	1	1613551	1	1613587	1	1613593	1	1613629	1		
Device connector,rear mounting, M20 x 1.5 fastening thread, with contact carrier, without contacts, for male 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 polarization												
M18 x 0.75	ST-E2015151			1613831	10	ST-E2015151			1613831	10		
M20 x 1.5	RC-13041			1600417	10	RC-13041			1600417	10		
Crimp contacts	Order separately, see page 140 onwards					Order separately, see page 140 onwards						
Color rings, 50 pcs. in set (to be ordered separately)	See page 180					See page 180						
Protective caps (to be ordered separately)	See page 181					See page 181						
Unlocking tool for contact carriers	See page 179					See page 179						

Circular connectors

M17 power connectors

Crimp contacts, turned

Depending on the number of positions, assemble the M17 power connectors with Ø 2 mm, Ø 1 mm or Ø 0.6 mm contacts (see table below).

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



Crimp contacts, female



Crimp contacts, male

Ordering data				Ordering data			
Description	Connection cross section [mm²]	Type	Order No.	Pcs./Pkt.	Type	Order No.	Pcs./Pkt.
Contact, female, Ø 2.0 mm	0.25 ... 1.0	ST-20KS010	1607657	50			
	1.0 ... 2.5	ST-20KS020	1607658	50			
Contact, Ø 1.0 mm, for signal	0.06 ... 0.25	ST-10KS010	1618239	100			
	0.34 ... 0.50	ST-10KS020	1618251	100			
	0.25 ... 1.0	ST-10KS035	1618464	100			
Contact, female, Ø 0.6 mm	0.06 ... 0.25	ST-06KS010	1607580	100			
	0.14 ... 0.34	ST-06KS020	1607581	100			
	0.34 ... 0.50	ST-06KS030	1607582	100			
Contact, male, Ø 2.0 mm	0.25 ... 1.0				ST-20KP010	1607655	50
	1.0 ... 2.5				ST-20KP020	1607656	50
Contact, Ø 1.0 mm, for signal	0.06 ... 0.25				ST-10KP010	1618255	100
	0.34 ... 0.50				ST-10KP020	1618256	100
	0.25 ... 1.0				ST-10KP035	1618458	100
Contact, male, Ø 0.6 mm	0.06 ... 0.25				ST-06KP010	1607577	100
	0.14 ... 0.34				ST-06KP020	1607578	100
	0.34 ... 0.50				ST-06KP030	1607579	100
Accessories				Accessories			
Crimping tools		Order separately, see page 177		Order separately, see page 177			

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

Mechanical and electrical data

Mechanical data

Housing material:	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)
Connection technology:	Crimp connection
Sealing and O-ring:	Fluororubber (FPM)
Ambient temperature:	-40°C ... 125°C
Cable entry:	External cable diameter 5.5 to 17 mm
Type of locking:	M23 ONECLICK fast locking system, cable connector M23 x 1 coarse-pitch thread as an option
Mechanical insertion cycles:	Standard: 100
Protection class:	IP66/IP68

Electrical data

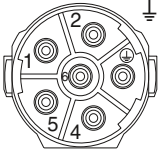
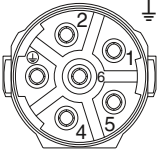
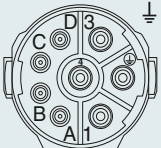
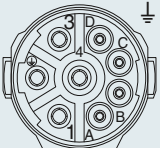
Number of positions		6 (5+PE)	8 (4+3+PE)				
Contacts		5 + PE	4	+	3	+	PE
Contact Ø	[mm]	2	1		2		2
Litz wire cross sections							
Short version, cable Ø max. 14 mm	[mm²]	0.25 ... 2.5	0.06 ... 1.0		0.25 ... 2.5		0.25 ... 2.5
Long version, cable Ø max. 18 mm	[mm²]	0.25 ... 4.0	0.06 ... 1.0		0.25 ... 4.0		0.25 ... 4.0
Device 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⁾	[A]	30	9		30		–
Specifications in accordance with DIN EN 61984:2009							–
Rated voltage	[V AC/DC]	630 ²⁾	250		630 ²⁾		–
Test/surge voltage	[kV AC]	6	4		6		–
Overvoltage category		III			III		
Pollution degree ³⁾		3			3		
Installation altitude	[m]	Up to 2000			Up to 2000		
Cable clamping area ⁴⁾	Max. Ø [mm]	17			17		

¹⁾ Determine the effective current carrying capacity depending on the application, if necessary, using a derating curve.

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

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

⁴⁾ The cable clamping areas specified on the following pages may vary depending on the cable material and structure. Selection and testing is the responsibility of the user.

Contact chamber numbering (view of plug-in side)				
Number of positions	Male		Female	
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

Circular connectors

M23 PRO series power connectors

Selection guide

M23 PRO series power connectors
up to 30 A / 630 V, crimping range
up to 4 mm²

- Cable connectors
- Device connectors (device flanges)

The connectors are delivered
pre-assembled. The connectors can
be furnished with the corresponding
crimp contacts.

Every housing type can be assembled
with male or female contacts. The product
chart provides an overview of the available
components.

Connector type

Cable connectors, short design

M23 ONECLICK fast locking system,
see page 146.



ONECLICK Technology[®]
Designed by PHOENIX CONTACT

M23 x 1 standard locking,
see page 146.



Shielded

Cable connectors, long design

M23 ONECLICK fast locking system,
see page 146.



ONECLICK Technology[®]
Designed by PHOENIX CONTACT

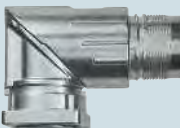
M23 x 1 standard locking,
see page 146.



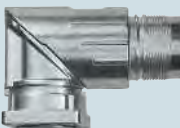
Shielded

Device connectors

Angled, rotatable,
flange dimensions: 26 mm x 26 mm,
see page 147.



Angled, rotatable,
flange dimensions: 28 mm x 28 mm,
see page 147.



Shielded

Crimp contacts

Tools/accessories

Female contacts

Turned, see page 148.



Crimping pliers with digital display for turned crimp contacts, see page 177.



Female contact
Male contact

Female contact
Male contact

Female contact
Male contact

All housings can be fitted with male or female crimp contacts

Male contacts

Turned, see page 148.

**Note:**

For safety reasons, only use female contacts in the live part of the connector.

Circular connectors

M23 PRO series power connectors

Cable connectors, short and long design, ONECLICK fast locking system

- Cross-manufacturer connection compatibility
- All housings can be fitted with male or female contacts

Notes:

Touch protection only on the female side



Cable connector, female assembly



Cable connector, male assembly

Ordering data

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

Ordering data

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

Cable connector, short, with contact carrier, **without** contacts, crimp connection

Universal gasket	5.5 mm ... 15 mm
	5.5 mm ... 8 mm
	7.5 mm ... 12 mm
	9.5 mm ... 14.5 mm

1628815	1	1628811	1
1628818	1	1628813	1
1628817	1	1628814	1
1628816	1	1628812	1

1628871	1	1628867	1
1628874	1	1628869	1
1628873	1	1628870	1
1628872	1	1628868	1

Cable connector, long, with contact carrier, **without** contacts, crimp connection

Universal gasket	7.5 mm ... 17 mm
	5.5 mm ... 8 mm
	7.5 mm ... 12 mm
	9.5 mm ... 14.5 mm
	14 mm ... 17 mm

1628796	1	1628791	1
1628800	1	1628795	1
1628799	1	1628794	1
1628798	1	1628793	1
1628797	1	1628792	1

1628852	1	1628847	1
1628856	1	1628850	1
1628855	1	1628851	1
1628854	1	1628849	1
1628853	1	1628848	1

Accessories

Crimp contacts

Order separately, see page 148 onwards

Accessories

Order separately, see page 148 onwards

Cable connectors, short and long design, M23 standard locking

- Cross-manufacturer connection compatibility
- All housings can be fitted with male or female contacts

Notes:

Touch protection only on the female side



Cable connector, female assembly



Cable connector, male assembly

Ordering data

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

Ordering data

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

Cable connector, short, with contact carrier, **without** contacts, crimp connection

Universal gasket	5.5 mm ... 15 mm
	5.5 mm ... 8 mm
	7.5 mm ... 12 mm
	9.5 mm ... 14.5 mm

1628823	1	1628819	1
1628826	1	1628822	1
1628825	1	1628821	1
1628824	1	1628820	1

1628879	1	1628875	1
1628882	1	1628878	1
1628881	1	1628877	1
1628880	1	1628876	1

Cable connector, long, with contact carrier, **without** contacts, crimp connection

Universal gasket	7.5 mm ... 17 mm
	5.5 mm ... 8 mm
	7.5 mm ... 12 mm
	9.5 mm ... 14.5 mm
	14 mm ... 17 mm

1628806	1	1628801	1
1628810	1	1628805	1
1628809	1	1628804	1
1628808	1	1628803	1
1628807	1	1628802	1

1628862	1	1628857	1
1628866	1	1628861	1
1628865	1	1628860	1
1628864	1	1628859	1
1628863	1	1628858	1

Accessories

Crimp contacts

Order separately, see page 148 onwards

Accessories

Order separately, see page 148 onwards

Device connectors,
angled, rotatable

- Cross-manufacturer connection compatibility
- All housings can be fitted with male or female contacts

Notes:

Touch protection only on the female side

new



Device connector,
female assembly

new



Device connector,
male assembly

Ordering data

Description	Cable clamping area
Device connector, angled, rotatable, with contact carrier, without contacts	
Flange dimensions: 26 mm x 26 mm	
Device connector, angled, rotatable, 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.	

1628491	1	1628490	1
1628489	1	1628488	1

Accessories

Order separately, see page 148 onwards

Ordering data

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

1628487	1	1628486	1
1628485	1	1628484	1

Accessories

Order separately, see page 148 onwards

Crimp contacts

Circular connectors

M23 PRO series power connectors

Crimp contacts, turned

Assemble the 5+PE-pos. M23 power connectors with 5 x Ø 2 mm contacts.
The 4+3+PE-pos. M23 power connectors are assembled with 4 x Ø 1 mm and 4 x Ø 2 mm contacts.



Crimp contacts, female



Crimp contacts, male

		Ordering data			Ordering data		
Description	Connection cross section [mm²]	Type	Order No.	Pcs./Pkt.	Type	Order No.	Pcs./Pkt.
Contact Ø 1.0 mm	0.06 ... 0.25	ST-10KS010	1618239	100	ST-10KP010	1618255	100
	0.34 ... 0.50	ST-10KS020	1618251	100	ST-10KP020	1618256	100
	0.25 ... 1.0	ST-10KS035	1618464	100	ST-10KP035	1618458	100
Contact Ø 2.0 mm	0.25 ... 1.0	SF-20KS021	1621576	50	SF-20KP011	1050147	50
	1.0 ... 2.5	SF-20KS022	1621577	50	SF-20KP012	1050205	50
	2.5 ... 4.0	SF-20KS023	1621578	50	SF-20KP013	1050210	50
		Accessories			Accessories		
Crimping tools		Order separately, see page 177 onwards			Order separately, see page 177 onwards		

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)
Connection technology:	Crimp connection
Sealing and O-ring:	Fluororubber (FPM)
Ambient temperature:	-40°C ... 125°C
Cable entry:	Cable and coupler connectors for an outer cable diameter of 7.5 to 18 mm, shielded
Type of locking:	M23 SPEEDCON screw locking, cable connector M23 x 1 coarse-pitch thread as an option
Mechanical insertion cycles:	Standard: 100
Protection class:	IP67 when locked

Electrical data

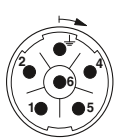
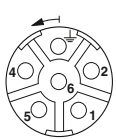
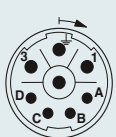
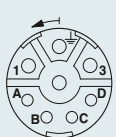
Number of positions		6 (5+PE)	8 (4+3+PE)				
Contacts		5 + PE	4	+	3	+	PE
Contact Ø	[mm]	2	1		2		2
Litz wire cross sections							
Short version, cable Ø max. 14 mm	[mm²]	0.25 ... 2.5	0.06 ... 1.0		0.25 ... 2.5		0.25 ... 2.5
Long version, cable Ø max. 18 mm	[mm²]	0.25 ... 4.0	0.06 ... 1.0		0.25 ... 4.0		0.25 ... 4.0
Device 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⁾	[A]	30	9		30		–
Specifications in accordance with DIN EN 61984:2009							–
Rated voltage	[V AC/DC]	630 ²⁾	250		630 ²⁾		–
Test/surge voltage	[kV AC]	6	4		6		–
Overvoltage category		III			III		
Pollution degree ³⁾		3			3		
Installation altitude	[m]	Up to 3000			Up to 3000		
Cable clamping area ⁴⁾	Max. Ø [mm]	18			18		

¹⁾ Determine the effective current carrying capacity depending on the application, if necessary, using a derating curve.

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

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

⁴⁾ The cable clamping areas specified on the following pages may vary depending on the cable material and structure. Selection and testing is the responsibility of the user.

Contact chamber numbering (view of plug-in side)				
Number of positions	Male		Female	
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

Circular connectors

M23 power connectors

Selection guide

M23 power connectors up to 30 A/630 V, crimp ranges up to 4 mm²

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

The connectors are pre-assembled on delivery. The connectors can be furnished with the corresponding crimp contacts.

The product chart provides an overview of the available components.

Connector type

Cable connectors

Short, SPEEDCON fast locking system, see page 154.

M23 x 1 standard interlocking, see page 154.



Long, SPEEDCON fast locking system, see page 154.

M23 x 1 standard interlocking, see page 154.



Device connectors with knurled nut

Straight, see page 157.



Angled, see page 157.



Coupler connectors

Short, see page 155.



Long, see page 155.



With mounting flange
Short, see page 158.



With mounting flange
Long, see page 158.



Device connectors

Straight, see page 156.



Angled, rotatable,
flange dimensions: 26 mm x 26 mm,
see page 156.



Angled, rotatable,
flange dimensions: 28 mm x 28 mm
see page 156.



Panel feed-throughs

External female – internal male,
see page 159.



Panel feed-throughs are supplied fully wired.

Crimp contacts**Female contacts**

Turned, see page 160.



Female contacts

Tools/accessories

Crimping pliers with digital display for turned crimp contacts, see page 177.

**Male contacts**

Turned, see page 160.



Male contacts

Male contacts

Accessories

Color rings for individually marking the connectors, see page 180.

**Note:**

For safety reasons, only use female contacts in the live part of the connector.

Circular connectors

M23 power connectors

Cable connectors, long and short design

- SPEEDCON fast locking system or M23 standard interlocking
- Standard knurled nut compatible with mating connectors with SPEEDCON and M23 standard external thread
- Individual marking of connectors with color rings



Cable connector,
SPEEDCON



Cable connector,
M23 standard interlocking

		Ordering data				Ordering data			
Description	Cable clamping area	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.	
Cable 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	1618197	1	1618207	1	1605532	1	1605602	1
	7.5 mm ... 9 mm	1618194	1	1618204	1	1605524	1	1605595	1
	9 mm ... 11 mm	1618195	1	1618205	1	1605526	1	1605596	1
	11 mm ... 14 mm	1618196	1	1618206	1	1605529	1	1605597	1
Cable 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	1618202	1	1618212	1	1605549	1	1605617	1
	7.5 mm ... 9 mm	1618201	1	1618211	1	1605548	1	1605614	1
	9 mm ... 12 mm	1618200	1	1618210	1	1605546	1	1605610	1
	12 mm ... 15 mm	1618199	1	1618209	1	1605545	1	1605607	1
	15 mm ... 18 mm	1618198	1	1618208	1	1605543	1	1605605	1
		Accessories				Accessories			
Crimp contacts		For female contacts, see page 160				For female contacts, see page 160			
Color rings, 50 pcs. in set (to be ordered separately)		See page 180				See page 180			
Protective caps (to be ordered separately)		See page 181				See page 181			

Coupler connectors, long and short design

- Compatible with mating connectors with SPEEDCON and M23 standard knurled nut
- Individual marking of connectors with color rings



Coupler connector, short



Coupler connector, long

Ordering data

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

Coupler 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 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)
Protective caps (to be ordered separately)

For male contacts, see page 160
See page 180
See page 181

Accessories

For male contacts, see page 160
See page 180
See page 181

Circular connectors

M23 power connectors

Device connectors,
straight and angled, rotatable

- Compatible with mating connectors with SPEEDCON and M23 standard knurled nut



Device connector,
straight



Device connector,
angled rotatable

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.	
Device connector, with contact carrier without contacts								
Flange dimensions: 26 mm x 26 mm	1605520	1	1605589	1	1620657	1	1620660	1
Device connector, with reinforced contact carrier (black) for angled mating connectors, without contacts								
Flange dimensions: 26 mm x 26 mm	1620619	1	1620620	1				
Device connector with contact carrier without contacts								
Flange dimensions: 28 mm x 28 mm					1620661	1	1620662	1
Accessories				Accessories				
Crimp contacts				For male contacts, see page 160				
Color rings, 50 pcs. in set (to be ordered separately)				See page 180				
Protective caps (to be ordered separately)				See page 181				

Device connectors, with knurled nut

- Only assemble device connectors with knurled nut with female contacts.
- Standard knurled nut compatible with mating connectors with SPEEDCON and M23 standard external thread



Device connector with knurled nut,
straight



Device connector with knurled nut,
angled fixed

	Ordering data				Ordering data			
Description	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.	
Device connector, with knurled nut, straight, with contact carrier, without contacts	1607082	1	1605622	1				
Device connector, with knurled nut, angled, fixed, with contact carrier, without contacts					1607405	1	1607429	1
	Accessories				Accessories			
Crimp contacts	For female contacts, see page 160				For female contacts, see page 160			
Protective caps (to be ordered separately)	See page 181				See page 181			

Circular connectors

M23 power connectors

Panel feed-throughs, long and short design

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



Panel feed-through, short



Panel feed-through, long

		Ordering data				Ordering data			
Description		Cable clamping area		Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
				5+PE-pos.		4+3+PE-pos.		5+PE-pos.	
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	1605517	1	1607051	1				
	7.5 mm ... 9 mm	1605516	1	1607048	1				
	9 mm ... 11 mm	1607037	1	1607049	1				
	11 mm ... 14 mm	1607038	1	1607050	1				
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					1605518	1	1607056	1
	7.5 mm ... 9 mm					1607042	1	1607055	1
	9 mm ... 12 mm					1607041	1	1607054	1
	12 mm ... 15 mm					1607040	1	1607053	1
	15 mm ... 18 mm					1607039	1	1607052	1
						Accessories			
Crimp contacts				For male contacts, see page 160		For male contacts, see page 160			
Color rings, 50 pcs. in set (to be ordered separately)				See page 180		See page 180			
Protective caps (to be ordered separately)				See page 181		See page 181			

**Panel feed-throughs,
fully wired**

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

**Panel feed-through, male/female**

Ordering data			
Description	Order No.	Pcs./Pkt.	Order No.
	5+PE-pos.		4+3+PE-pos.
	1605492	1	1605567
Accessories			
Protective caps (to be ordered separately)	See page 181		

Circular connectors

M23 power connectors

Crimp contacts, turned

Assemble the 6-pos. (5+PE) versions with two Ø 2 mm contacts. Assemble the 8-pos. (4+3+PE) versions with four Ø 1 mm signal contacts and four Ø 2 mm contacts.

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

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



Crimp contacts, female



Crimp contacts, male

ERC

			Ordering data			Ordering data		
Description	Connection cross section [mm²]	Type	Order No.	Pcs./Pkt.	Type	Order No.	Pcs./Pkt.	
Contact, female Ø 2.0 mm for cable and device 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				
Contact, female Ø 1.0 mm for cable and device 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				
Contact, male Ø 2.0 mm for coupler connectors, power and PE 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	
Contact, male Ø 1.0 mm for coupler connectors, signal contacts	0.06 ... 0.2				SF-6CP2000	1605559	100	
	0.14 ... 0.5				SF-10KP004	1607355	100	
	0.5 ... 1.0				SF-6AP2000	1605554	100	
Contact, male Ø 2.0 mm for device connectors, power and PE 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	
Contact, male Ø 1.0 mm for device connectors, signal contacts	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 177 onwards			Order separately, see page 177 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

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)
Connection technology:	Crimp connection
Sealing and O-ring:	Fluororubber (FKM)
Ambient temperature:	-40°C ... 125°C
Cable entry:	Outer cable diameter 9.0 to 26.5 mm, shielded
Type of locking:	M40 SPEEDCON fast locking system, cable connector with M40 x 1.5 coarse-pitch thread as an option
Mechanical insertion/withdrawal cycles:	Standard: 50
Protection class	IP67 when locked

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 connectors	[mm²]	0.14 ... 4.0		0.75 ... 10		0.75 ... 10	0.14 ... 4.0		0.75 ... 10		0.75 ... 10
Device 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 in accordance with DIN EN 1984:2009											
Rated voltage	[V AC/DC]	250		630		–	250		630		–
Test/surge voltage	[kV]	4		6		–	4		6		–
Overvoltage 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⁾ Determine the effective current carrying capacity in accordance with the application, if necessary, using a derating curve.

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

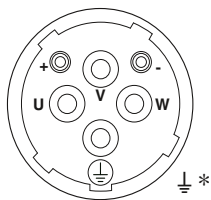
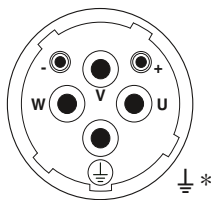
Contact chamber numbering
(view of plug-in side)

Number of positions

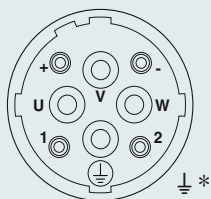
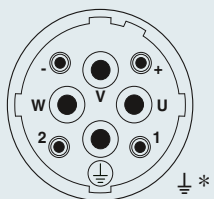
Male

Female

6-pos.
(2 + 3 + PE)
Crimp



8-pos.
(4 + 3 + PE)
Crimp



* with grounding spring

Circular connectors

M40 power connectors

Selection guide

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

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

The connectors are pre-assembled on delivery. The connectors can be furnished with the corresponding crimp contacts.

M40 connectors with knurled nuts can be supplied with SPEEDCON fast locking system or with M40 x 1.5 coarse-pitch thread as an option.

The product chart provides an overview of the available components.

Connector type

Cable connectors

SPEEDCON fast locking system, see page 166.

Shielded



Mounting flange for wall mounting, see page 179.

M40 x 1.5 standard interlocking, see page 166.



Device connectors with knurled nut

Straight, see page 167.

Shielded



Angled, see page 167.



Coupler connectors

See page 166.

Shielded



Device connectors

Angled, rotatable, see page 168.

Straight, see page 166.



Crimp contacts**Tools/accessories****Female contacts**

Turned, see page 169.



Female contacts

Crimping tools

Crimping pliers, see page 177.



Crimping pliers with digital display for turned crimp contacts, see page 177.

**Male contacts**

Turned, see page 169.



Male contacts

Accessories

Color rings for individually marking the connectors, see page 180.

**Note:**

For safety reasons, only use female contacts in the live part of the connector.

Circular connectors

M40 power connectors

Cable connectors

- SPEEDCON fast locking system or M40 standard interlocking
- Standard knurled nut compatible with mating connectors with SPEEDCON or M40 standard external thread
- Individual marking of connectors with color rings



Cable connector,
SPEEDCON



Cable connector

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
2+3+PE-pos.		4+3+PE-pos.	

1613428	1	1613434	1
1613429	1	1613435	1
1613430	1	1613436	1

Accessories

For female contacts, see page 169

See page 180

See page 181

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
2+3+PE-pos.		4+3+PE-pos.	

1613518	1	1613528	1
1613519	1	1613529	1
1613520	1	1613530	1

Accessories

For female contacts, see page 169

See page 180

See page 181

Description Cable clamping area

Cable connector housing, with contact carrier, without contacts, connection cross section up to 16 mm²

9 mm ... 14 mm
14 mm ... 20.5 mm
20.5 mm ... 26.5 mm

Crimp contacts

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

Protective caps (to be ordered separately)

Coupler and device connectors

- Compatible with mating connectors with SPEEDCON and M40 standard knurled nut
- Individual marking of connectors with color rings



Coupling connector



Device connector, straight

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
2+3+PE-pos.		4+3+PE-pos.	

1613425	1	1613431	1
1613426	1	1613432	1
1613427	1	1613433	1

Accessories

For male contacts, see page 169

See page 180

See page 181

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
2+3+PE-pos.		4+3+PE-pos.	

1613517	1	1613527	1
---------	---	---------	---

Accessories

For male contacts, see page 169

See page 180

See page 181

Description Cable clamping area

Coupler connector, with contact carrier, without contacts, connection cross section up to 16 mm²

9 mm ... 14 mm
14 mm ... 20.5 mm
20.5 mm ... 26.5 mm

Device connector, straight, with contact carrier, without contacts

Connection cross section up to 10 mm²

Crimp contacts

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

Protective caps (to be ordered separately)

Device connectors, with knurled nut

- SPEEDCON fast locking system or M40 standard interlocking
- Standard knurled nut compatible with mating connectors with SPEEDCON or M40 standard external thread
- Only assemble device connectors with knurled nut with female contacts



Device connector with knurled nut,
straight, SPEEDCON

Ordering data

Description
Device connector, with SPEEDCON knurled nut, straight , with contact carrier, without contacts
Connection cross section up to 16 mm ²
Device connector, with standard knurled nut, straight , with contact carrier, without contacts
Connection cross section up to 16 mm ²

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
2+3+PE-pos.		4+3+PE-pos.	

1613524

1

1613534

1

Accessories

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

For female contacts, see page 169
See page 180
See page 181



Device connector with knurled nut,
straight

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
2+3+PE-pos.		4+3+PE-pos.	

1605823

1

1605865

1

Accessories

For female contacts, see page 169
See page 180
See page 181

Device connectors, with knurled nut

Only assemble device connectors with knurled nut with female contacts.



Device connector with knurled nut,
angled, SPEEDCON

Ordering data

Description
Device connector, with SPEEDCON knurled nut, angled , with contact carrier, without contacts
Connection cross section up to 16 mm ²
Device connector, with knurled nut, angled , with contact carrier, without contacts
Connection cross section up to 16 mm ²

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
2+3+PE-pos.		4+3+PE-pos.	

1613525

1

1613535

1

Accessories

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

For female contacts, see page 169
See page 180
See page 181



Device connector with knurled nut,
angled

Ordering data

Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
2+3+PE-pos.		4+3+PE-pos.	

1607532

1

1607543

1

Accessories

For female contacts, see page 169
See page 180
See page 181

Circular connectors

M40 power connectors

Device connectors,
angled, rotatable

- Compatible with mating connectors with SPEEDCON and M40 standard knurled nut
- The rotatable angled housing can be rotated freely through 310°.
- Individual marking of connectors with color rings



Device connector,
angled rotatable

Description
Device connector, angled, rotatable, with contact carrier, without contacts
Connection cross section up to 10 mm²

Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
2+3+PE-pos.		4+3+PE-pos.	
1620663	1	1620664	1

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

Accessories	
For male contacts, see page 169	
See page 180	
See page 181	

Crimp contacts, turned

Assemble the 6-pos. (2+3+PE) versions with two Ø 2 mm signal contacts and four Ø 3.6 mm contacts (three power contacts and one PE contact).

Assemble the 8-pos. (4+3+PE) versions with four Ø 2 mm signal contacts and four Ø 3.6 mm contacts (three power contacts and one PE contact).

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



Crimp contacts, female



Crimp contacts, male

			Ordering data			Ordering data		
Description	Connection cross section [mm²]	Type	Order No.	Pcs./Pkt.	Type	Order No.	Pcs./Pkt.	
Contact, female Ø 3.6 mm, for cable and device 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	SM-36KS004	1605762	20				
	16	SM-36KS016	1623972	20				
Contact, female Ø 2.0 mm, for cable and device 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				
Contact, male Ø 3.6 mm, for coupler 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				SM-36KP007	1605752	20	
	16				SM-36KP016	1623970	20	
Contact, male Ø 2.0 mm, for coupler 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	
Contact, male Ø 3.6 mm, for device connectors, power and PE contacts	0.75 ... 1.5				SM-36KP001	1605743	20	
	1.0 ... 2.5				SM-36KP009	1607057	20	
	4.0 ... 6.0				SM-36KP003	1605745	20	
	6.0 ... 10.0				SM-36KP004	1605747	20	
Contact, male Ø 2.0 mm, for device 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 177		Order separately, see page 177				

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

Circular connectors

M58 power 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)
Connection technology:	Crimp connection
Sealing and O-ring:	Fluororubber (FPM)
Ambient temperature:	-40°C ... 120°C
Cable entry:	Cable and coupler connectors for an outer cable diameter of 17 to 3 mm, shielded
Type of locking:	M58 x 2 screw locking
Mechanical insertion/withdrawal cycles:	Standard: 100
Protection class:	IP67 when locked

Electrical data

Number of positions	6 (2 + 3 + PE)					8 (4 + 3 + PE)				
Contacts	2	+	3	+	PE	4	+	3	+	PE
Contact Ø [mm]	1.6		10		10	1.6		10		10
Litz wire cross section										
Crimp contacts, turned [mm²]	0.75 ... 1.5		10 ... 50		10 ... 50	0.75 ... 1.5		10 ... 50		10 ... 50
Nominal current per contact at 25°C ¹⁾ [A]	12		150		–	12		150		–
Specifications in accordance with DIN EN 61984:2009										
Rated voltage [V AC/DC]	250		630		–	250		630		–
Test/surge voltage [kV AC]	4		6		–	4		6		–
Overvoltage 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⁾ Determine the effective current carrying capacity in accordance with the application, if necessary, using a derating curve.

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

Note:

In contrast to connecting equipment, connectors may only be inserted/withdrawn with the power supply disconnected.

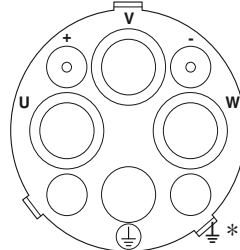
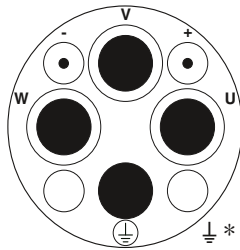
Contact chamber numbering
(view of plug-in side)

Number of positions

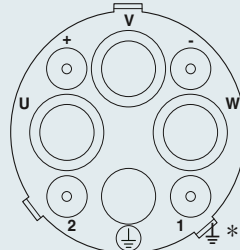
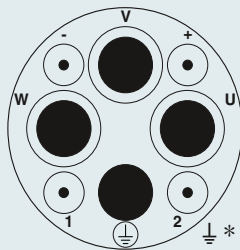
Male

Female

6-pos.
(2 + 3 + PE)
Crimp



8-pos.
(4 + 3 + PE)
Crimp



* with grounding spring,
PE leading

Circular connectors

M58 power connectors

Selection guide

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

- Cable connectors
- Coupler connectors
- Device connectors, straight

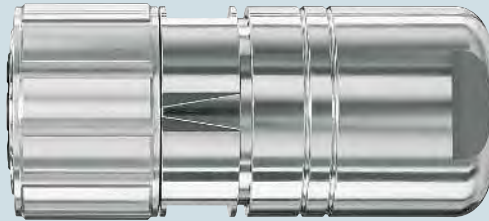
The connectors are pre-assembled on delivery. The connectors can be furnished with the corresponding crimp contacts.

The product chart provides an overview of the available components.

Connector type

Cable connectors

Shielded



See page 174.

Coupler connectors

Shielded



See page 174.

Device connectors

Shielded



See page 174.

Crimp contacts

Tools/accessories

Female contacts

Female contacts

Turned, see page 175.



Crimping tools

Crimping device for power and PE contacts
Ø 10 mm, see page 178.



Crimping pliers for signal contacts Ø 1.6 mm,
see page 178.



Male contacts

Male contacts

Turned, see page 175.



Male contacts

Note:

For safety reasons, only use female contacts in the live part of the connector.

Circular connectors

M58 power connectors

Cable and coupler 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 connector



Coupling connector

Description		Cable clamping area	
Connector housing , with contact carrier, without contacts, for cable diameter:		17 mm ... 25 mm	25 mm ... 36 mm
Crimp contacts		Protective caps (to be ordered separately)	

Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
2+3+PE-pos.		4+3+PE-pos.	
1607503	1	1607508	1
1607501	1	1607507	1

Accessories			
For female contacts, see page 175			
See page 181			

Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
2+3+PE-pos.		4+3+PE-pos.	
1607500	1	1607506	1
1607499	1	1607505	1

Accessories			
For male contacts, see page 175			
See page 181			

Device connectors for front mounting

Assemble the coupler and device connectors with male contacts and the cable connectors with female contacts.



Device connector, straight

Description		Cable clamping area	
Device connector, straight , with contact carrier, without contacts		17 mm ... 25 mm	25 mm ... 36 mm
Crimp contacts		Protective caps (to be ordered separately)	

Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
2+3+PE-pos.		4+3+PE-pos.	
1615686	1	1615687	1

Accessories			
For male contacts, see page 175			
See page 181			

Crimp contacts, turned

Assemble the 6-pos. (2+3+PE) versions with two Ø 1.6 mm signal contacts and four Ø 10 mm contacts (three power contacts and one PE contact).

Assemble the 8-pos. (4+3+PE) versions with four Ø 1.6 mm signal contacts and four Ø 10 mm contacts (three power contacts and one PE contact).

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



Crimp contacts, female



Crimp contacts, male

Ordering data				Ordering data							
Description	Connection cross section [mm²]	Type	Order No.	Pcs./Pkt.	Type	Order No.	Pcs./Pkt.				
Contact, female Ø 10.0 mm for cable 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							
Contact, female Ø 1.6 mm for cable connectors, signal contacts	0.75 ... 1.5	SL-16KS010	1607956	4							
Contact, male Ø 10.0 mm for coupler and device 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				
Contact, male Ø 1.6 mm for coupler and device connectors, signal contacts	0.75 ... 1.5				SL-16KP010	1607909	4				
Accessories				Accessories							
Crimping tools				Order separately, see page 178 onwards				Order separately, see page 178 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

Crimping tools for turned contacts

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

Notes:

For crimping tools for M23 signal connectors, see page 176



Manual crimping pliers

ERC

Description		Ordering data		
Litz wire cross section [mm ²]		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 mm ²				
		SF-Z0042	1613666	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
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
Locator for SF-Z0026 crimping pliers, for crimping turned M40 hybrid contacts, Ø 3.6 mm				
2.5 ... 6		SB-Z0026	1624618	1
Manual crimping pliers , for turned crimp contacts, Ø 3.6 mm				
10 ... 16		SB-Z0016	1624515	1

Circular connectors

Tools and accessories

Crimping tools for turned contacts for M58 power connectors

The SF-Z0025 manual crimping pliers are used for turned crimp contacts with Ø 1.6 mm for M58 power connectors. The Ø 10 mm contacts can be crimped conveniently using the SL-Z0007 electric crimping tool.

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



Electro-hydraulic crimping device



Manual crimping pliers

ERC

		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 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 holder incl. foot actuation switch	SL-Z0010	1613487	1			

Notes:

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

Contact removal tools, square mounting flange

The removal tool is used for those 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 coupling connectors. In this way, the product range is easily expanded with connectors as panel feed-throughs.



Contact removal tool
for snap-in contact carriers



Square mounting flange
for cable or coupler connectors
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 connectors							
	for M17 signal or power connectors	ST-Z0001	1607770	1			
	For M23 feedback connectors	RF-Z0001	1607904	1			
	For M23 signal connectors	CA-Z0001	1620699	1			
Square mounting flange, metal, with O-ring gasket, for M17 (excluding M17 Compact) cable and coupler connectors for wall mounting							
	4 x Ø 2.7 mm				ST-Z0002	1607771	1
	4 x M3				ST-Z0003	1607772	1
Square mounting flange, metal, without O-ring gasket, for M17 (excluding M17 Compact) cable and coupler connectors for wall mounting							
	4 x Ø 2.7 mm				ST-Z0004	1607773	1
	4 x M3				ST-Z0005	1607775	1
Square mounting flange, metal, with O-ring gasket, for M23 feedback cable and coupler connectors for wall mounting							
	4 x M3				RF-Z0003	1607905	1
Square mounting flange, metal, with O-ring gasket, for M40 cable and coupler connectors for wall mounting							
	4 x Ø 4.3 mm				SM-Z0003	1607935	1
Square mounting flange, metal, without O-ring gasket, for M40 cable and coupler connectors for wall mounting							
	4 x Ø 4.3 mm				SM-Z0004	1607937	1

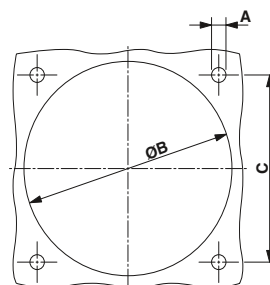
Installation dimensions for square mounting flanges

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

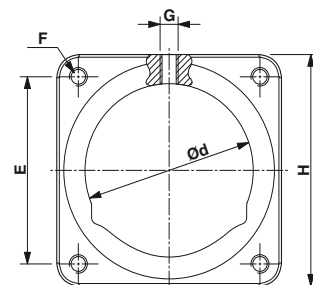
Note:

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

Installation dimensions



Flange dimensions



Circular connectors

Tools and accessories

Color rings

The color rings are used for individually marking the connectors



Color rings for marking connectors with cable entry



Color rings for marking device connectors

		Ordering data			Ordering data		
Description	Color	Type	Order No.	Pcs./Pkt.	Type	Order No.	Pcs./Pkt.
Color rings for M17 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 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 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 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 connectors and M23 signal device connectors, angled, rotatable, 50 pcs. in the 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 hybrid and power 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 hybrid and power connectors, 50 pcs. in the 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

Protective caps, plastic

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

These prevent penetration of dust and humidity.

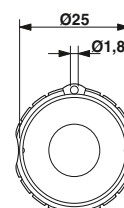
Plastic protective caps enable IP40 degree of protection when locked into place.



Plastic protective cap

ERC

		Ordering data		
Description	Degree of protection when locked	Type	Order No.	Pcs./Pkt.
Plastic protective cap , for signal or power connectors, with M17 external thread	IP40	ST-Z0006	1607776	25
Plastic protective cap , for signal or power connectors, with M17 knurled nut (SPEEDCON and standard)	IP40	ST-Z0007	1607777	25
Plastic protective cap , for signal or power connectors, with M17 external thread (M17 COMPACT)	IP40	ST-Z0023	1621049	25
Plastic protective cap , for signal or power connectors, with M17 knurled nut (M17 COMPACT)	IP40	ST-Z0024	1621904	25
Plastic protective cap with lug , for signal or power connectors, with M23 external thread	IP40	SF-Z0019	1607449	25
Plastic protective cap , for signal or power connectors and for hybrid connectors, with M23 knurled nut	IP40	RC-Z2058	1604223	25
Plastic protective cap , for signal or power connectors, with M23 external thread	IP40	RC-Z2059	1604225	25
Plastic protective cap, anti-static , black, for signal or power connectors, with M23 knurled nut	IP40	RC-Z2468	1611796	25
Plastic protective cap , for hybrid connectors, with M23 external thread	IP40	SH-Z2304	1622137	25
Plastic protective cap, anti-static , black, for signal or power connectors, with M23 external thread	IP40	RC-Z2469	1611797	25
Plastic protective cap , for power connectors and for hybrid connectors, with M40 external thread	IP40	SM-Z0001	1605866	25
Plastic protective cap , for signal or power connectors and for hybrid connectors, with M40 external thread	IP40	SM-Z0031	1624199	25
Plastic protective cap , for power connectors, with M58 external thread	IP40	SL-Z0005	1607926	25



SF-Z0019, eye for fixing cord

Protective caps, metal

Metal protective caps are available for higher demands on the degree of protection. These enable IP67 when locked.

The steel wire is fastened to the housing panel. The metal protective cap is therefore captive.



Metal protective cap

		Ordering data		
Description	Degree of protection when locked	Type	Order No.	Pcs./Pkt.
Metal protective cap , for signal or power connectors, with M17 external thread	IP67	ST-Z0014	1616069	10
Metal protective cap with steel wire and lug , device fastening, for signal or power connectors, with M17 external thread	IP67	ST-Z0013	1616068	10
Metal protective cap with steel wire and loop , cable fastening, for signal or power connectors, with M17 knurled nut	IP67	ST-Z0077	1627217	10
Metal protective cap , for signal connectors, with M23 external thread	IP67	RC-Z2104	1604260	10
Metal protective cap with steel wire and lug , device fastening, for signal connectors, with M23 external thread	IP67	RC-Z2068	1604236	10
Metal protective cap with steel wire and lug , device fastening, for signal connectors, with M23 knurled nut	IP67	RC-Z2062	1604228	10
Metal protective cap with steel wire and loop , cable fastening, for signal connectors, with M23 knurled nut	IP67	CA-Z0077	1627224	1
Metal protective cap , for power connectors, with M23 external thread	IP67	SC-Z2319	1605456	10
Metal protective cap with steel wire and lug , device fastening, for power connectors, with M23 external thread	IP67	SC-Z2320	1605457	10
Metal protective cap , for hybrid and power connectors, with M23 external thread	IP67	SH-Z2301	1622140	10
Metal protective cap with steel wire and lug , device fastening, for hybrid and power connectors, with M23 knurled nut	IP67	SH-Z2300	1622141	10
Metal protective cap with steel wire and loop , cable fastening, for hybrid and power connectors, with M23 knurled nut	IP67	SH-Z0077	1627226	1
Metal protective cap , for hybrid connectors, with M23 external thread	IP67	SH-Z2303	1622138	10
Metal protective cap with steel wire and lug , device fastening, for hybrid connectors, with M23 external thread	IP67	SH-Z2302	1622139	10
Metal protective cap , for hybrid and power connectors, with M40 external thread	IP67	SB-Z0001	1623827	1
Metal protective cap with steel wire and lug , device fastening, for hybrid and power connectors, with M40 external thread	IP67	SB-Z0002	1623828	1
Metal protective cap with steel wire and loop , cable fastening, for hybrid and power connectors, with M40 knurled nut	IP67	SM-Z0077	1627218	1