

Circular connectors – PLUSCON circular

PLUSCON circular is a circular connector for use in industrial automation. The range of design sizes available is varied, starting with the design sizes M5 to M8 and M12, for sensor/actuator connection technology through M17, M23, predominantly for the transmission of analog and digital signals, up to M40 and M58 connectors. The latter are used exclusively for the transmission of electrical currents of up to 150 A at 630 V per contact feed-through. The entire range covers the band width of circular connectors for industrial applications.

Sensor/actuator flush-type connectors

Varied requirements for the sensor/actuator device connection methods in the industrial environment have resulted in an extensive range of M5, M8 and M12 flush-type connectors and panel feed-throughs. Customer-specific developments allow optimum adaptations to individual device concepts.

Sensor/actuator connectors for assembly

A safe and efficient assembly is a decisive factor for field cabling. The 5x selection options of the connection technology provide fine adaptation to the respective application or requirement in the field. The connectors for assembly are available in different unshielded and EMC-compliant versions.

Signal and power connectors

In the numerous applications for signal and power connectors, the device connection for electric drives plays an important role. In addition to cable and coupling connectors, cabling also requires device flanges and panel feed-throughs. The ConPower product range has been designed accordingly. It includes a total of four performance classes

- P20 – up to 20 A/400 V
- P30 – up to 30 A/630 V
- P70 – up to 70 A/630 V
- P150 – up to 150 A/630 V

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Faster installation through innovative connection methods

An extensive range of circular connectors that can be freely assembled is available for safe and efficient field wiring. The 5x selection options of the connection technology provide fine adaptation to the respective application or on-site requirement. Straight or angled connectors, with male as well as female contacts and different numbers of positions can be delivered.

The M8 connectors are available with the classic screw or solder connection and the Piercecon fast connection system. Depending on the number of positions, the M12 series is available with screw or spring-cage connection as well as with the Quickon fast connection technology.

Connectors that can be shielded and freely assembled are available for EMC-capable applications. They are characterized by a rugged, metal shell with corresponding shield attenuation.

Piercecon M8

The Piercecon connection system enables quick and reliable field assembly of even the compact M8 connectors. The electrical connection is made by axial piercing of a contact pin into the individual cores. In doing so, the contact forms the individual wires into an adapted contact area. Piercecon saves the need for time-consuming solder or screw solutions for the M8 connection. All versions meet the requirements of IP67 degree of protection.



M12 spring-cage

The M12 connector with a spring-cage connection guarantees simple and reliable wiring of solid or stranded conductors, with or without ferrules. The complete product range comprises 4 and 5-position straight and angled versions. The connector types with metal housing are particularly suitable for EMC requirements.



M12 QUICKON

QUICKON provides the fastest connection for M12 connectors. Individual conductors no longer have to be stripped before connection. When contacting, an insulation displacement contact cuts through the conductor insulation and makes vibration-free, gas-tight spring contact to the litz wire. The connectors with male or female contacts are available with metal or plastic knurl.



M12 screw connection

The M8 and M12 connectors with a screw connection are among the classics in connection technology. Different cables and cable qualities can be assembled on-site quickly and without any error.



The product range

M5, M8, M12, 7/8" flush-type connectors

The wide product range of flush-type connectors for sensor/actuator components offers comprehensive solutions for M5, M8, M12 and 7/8" device connection methods. Typical fields of application are: The pluggable connection method of control cabinets, limit switches, encoders and devices using panel feed-throughs. Flush-type connectors are available for the device connection method for sensor/actuator boxes, fieldbus modules and industrial controllers. These

connectors can be 'seamlessly' mechanically integrated into the device design and are also designed for economical PCB assembly, e.g. using THR and the Pick & Place technique.



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M8, M12, 7/8" connectors for assembly

A wide range of connectors for free assembly is available for the quick assembly of often differing conductor lengths, e.g. on-site. For the M8 and M12 connector range, various connection concepts are available. The M8 connectors are available with the classic screw or solder connection and the Piercecon fast connection system. The M12 series is available with screw or spring-cage connection as well as with the QUICKON fast connection technology. These versions

are uniformly available with a SPEEDCON interlock. Connectors that can be shielded and freely assembled are available for EMC-capable applications. They are characterized by a rugged, metal shell with corresponding shield attenuation.



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M23, M40 signal and power connectors

CONINVERS is the specialist for circular connectors in the Phoenix Contact group of companies. An extract of the product range that is especially suitable for power cables is given on the following pages. In addition to P30 and P70 series power connectors for up to 70 A at 630 V, it also contains M23 feedback connectors.

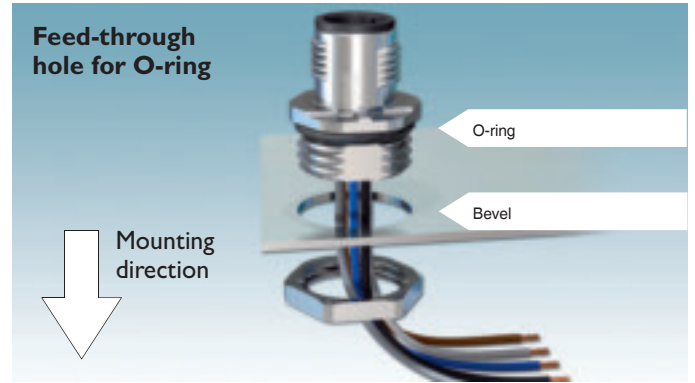
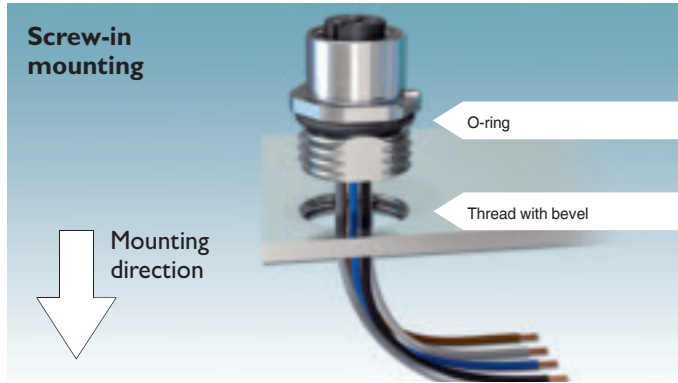
Additional information can be found at:
www.phoenixcontact.com/pluscon



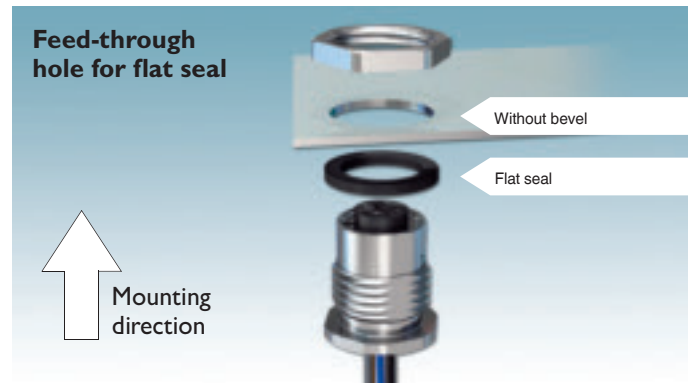
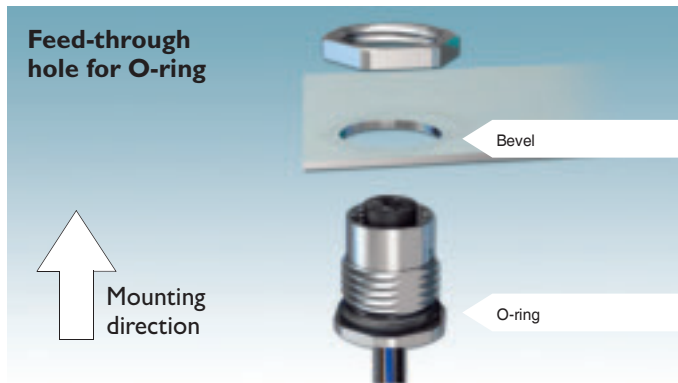
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Universal mounting options and varied
connection options of M12 flush-type connectors

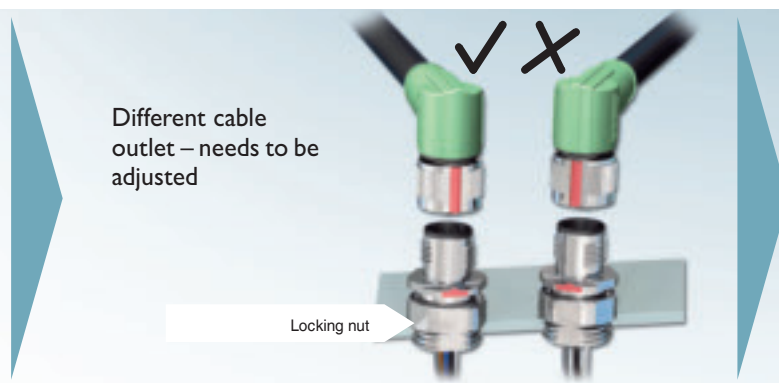
Front mounting

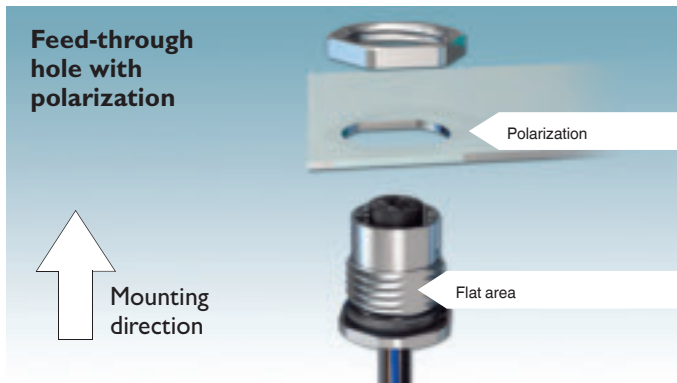
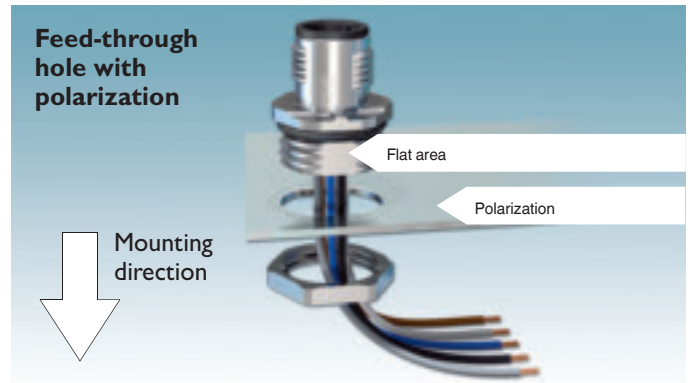
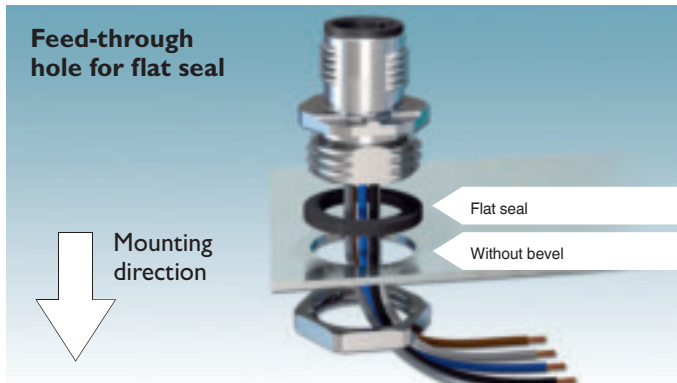


Rear mounting, one-section



Front mounting, cable outlet can be positioned



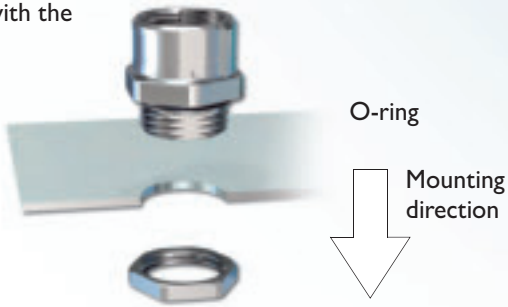


Circular connectors – PLUSCON circular

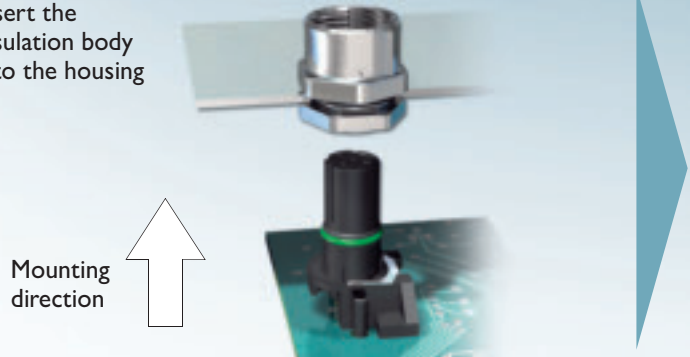
Mounting methods for flush-type connectors

Two-piece rear mounting – standard application

Screw the housing together with the front plate

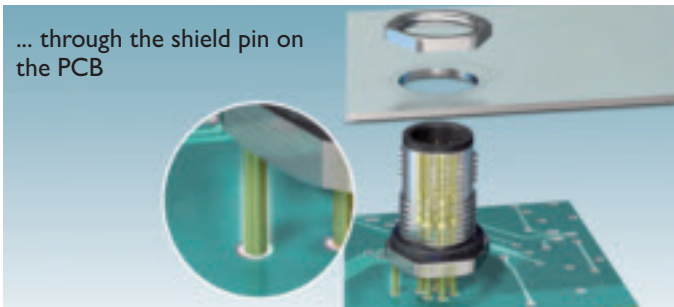


Insert the insulation body into the housing



Easiest shield connection...

... through the shield pin on the PCB



... through the EMC nut on the front plate



PCB connection – You have the choice

6 mm and 12 mm solder-in contacts for the wave solder process

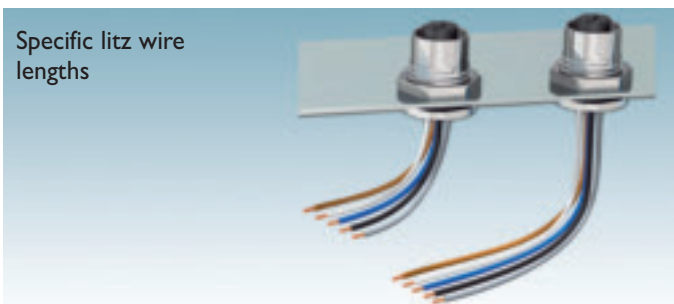


Contact carriers for the wave solder process with a locking clip

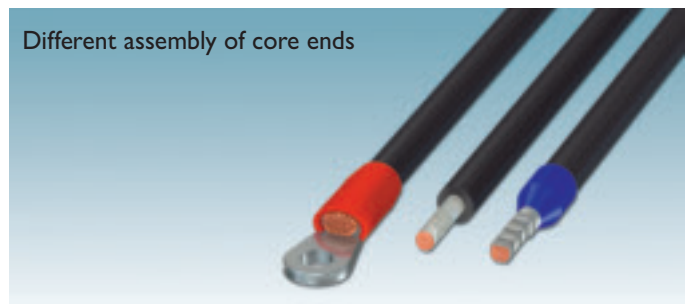


Individual service for your application

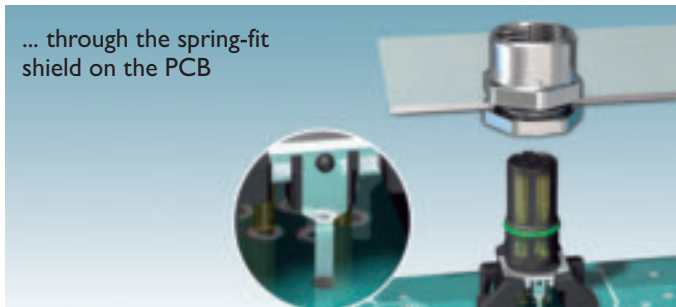
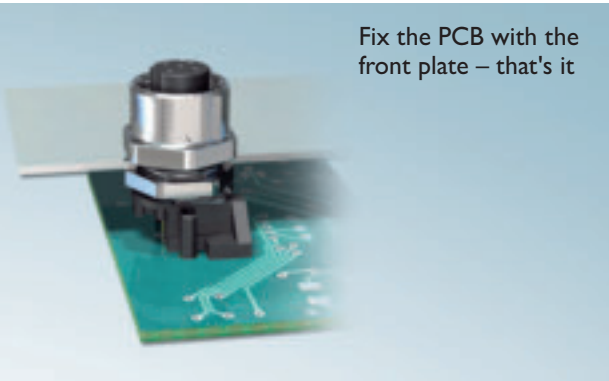
Specific litz wire lengths



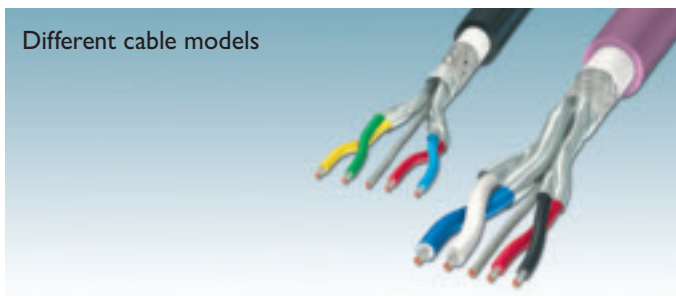
Different assembly of core ends



Rear mounting of customer housing



Tray packaging



Circular connectors – PLUSCON circular

Sensor/actuator flush-type connectors

M5/M8, front mounting, with 0.5 m long halogen-free litz wires

For connector pin assignments, see page 60.

Flat nut recommended for housing wall thicknesses < 2.5 mm.

More technical data and installation dimensions at:

www.phoenixcontact.net/catalog



M5 plug

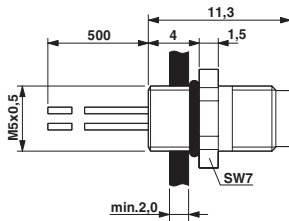
M5 socket

M8 male

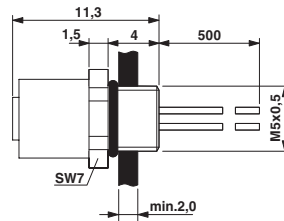
M8 socket

Description	No. of pos.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
-	3	1530582	1	1530605	1	1500334	1	1500350	1
-	4	1530595	1	1530618	1	1500347	1	1500363	1
DeviceNet, with PVC litz wires	5	-	-	-	-	1440119	1	1440106	1
-	6	-	-	-	-	1542664	1	1542677	1
Flat nut M5	-	1535901	100	1535901	100	-	-	-	-
Flat nut M8	-	-	-	-	-	1504071	100	1504071	100

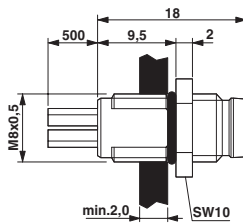
Technical data	M5, 3 and 4-pos.	M8, 3-pos.	M8, 4-pos.	M8, 5/6-pos.
Electrical data				
Rated voltage	60 V	60 V	30 V	30 V
Nominal current I _N	1 A	4 A	4 A	2 A
Volume resistance	3 mΩ	3 mΩ	3 mΩ	3 mΩ
Insulation resistance	100 MΩ	100 MΩ	100 MΩ	100 MΩ
Mechanical data				
Contact carrier material	PA 66	PUR / PA66	PUR / PA66	PUR / PA66
Material contact / contact surface	CuZn / Au	Cu alloy / Au	Cu alloy / Au	Cu alloy / Au
Inflammability class acc. to UL 94	HB	HB	HB	HB
Pollution degree	3	3	3	3
Degree of protection	IP67	IP67	IP67	IP67
Type of connection	Individual wires	Individual wires	Individual wires	Individual wires
Conductor cross-section	0.14 mm ²	0.25 mm ²	0.25 mm ²	0.14 mm ²
Temperature data				
Ambient temperature (operation)	-25°C ... 85°C	-25°C ... 85°C	-25°C ... 85°C	-25°C ... 85°C



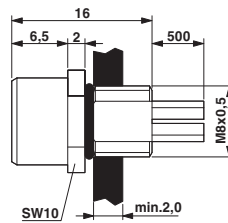
M5 flush-type connector



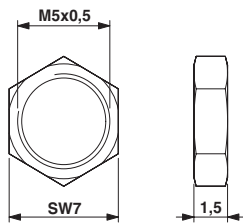
M5 flush-type socket



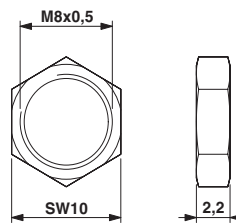
M8 flush-type connector



M8 flush-type socket



Flat nut M5



Flat nut M8

**M5/M8, rear mounting,
one-piece plug connector
for wave soldering processes**

For connector pin assignments, see page 60.

More technical data, installation dimensions and drilling diagrams at:
www.phoenixcontact.net/catalog



M5 plug



M5 socket



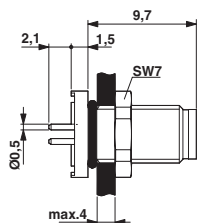
M8 male



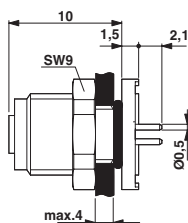
M8 socket

Description	No. of pos.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
-	3	1530621	20	1530647	20	1694334	20	1694363	20
-	4	1530634	20	1530650	20	1694347	20	1694376	20
-	6	-	-	-	-	1436521	20	1436534	20

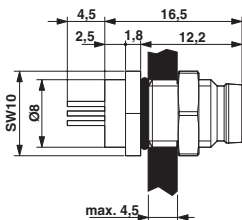
Technical data	M5, 3 and 4-pos.	M8, 3-pos.	M8, 4-pos.	M8, 6-pos.
Electrical data				
Rated voltage	60 V	60 V	30 V	30 V
Nominal current I _N	1 A	4 A	4 A	1.5 A
Volume resistance	3 mΩ	3 mΩ	3 mΩ	3 mΩ
Insulation resistance	100 MΩ	100 MΩ	100 MΩ	100 MΩ
Mechanical data				
Contact carrier material	PA 66	PA 66	PA 66	PA 66
Material contact / contact surface	Cu alloy / Au	CuZn / Au	CuZn / Au	CuZn / Au
Inflammability class acc. to UL 94	HB	HB	HB	HB
Pollution degree	3	3	3	3
Degree of protection	IP67	IP67	IP67	IP67
Type of connection	Solder pins	Solder pins	Solder pins	Solder pins
Temperature data				
Ambient temperature (operation)	-25°C ... 80°C	-25°C ... 85°C	-25°C ... 85°C	-25°C ... 85°C



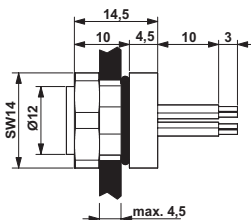
M5 flush-type connector,
3/4-pos.



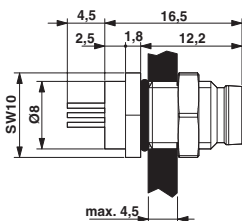
M5 flush-type socket,
3/4-pos.



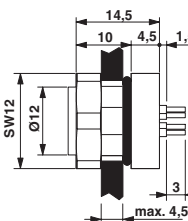
M8 flush-type connector,
3/4-pos.



M8 flush-type socket,
3/4-pos.



M8 flush-type connector,
6-pos.



M8 flush-type socket,
6-pos.

Circular connectors – PLUSCON circular

Sensor/actuator flush-type connectors

M8 flush-type sockets for wave soldering processes

For connector pin assignments, see page 60.

More technical data, installation dimensions and drilling diagrams at:
www.phoenixcontact.net/catalog



M8 socket,
180° connection



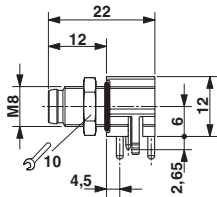
M8 socket,
90° connection



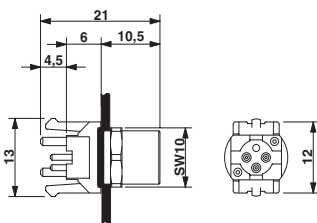
M8 pin,
90° connection

Description	No. of pos.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
-	3	1524776	20	1524788	20	1440070	20
-	4	1524789	20	1526169	20	1440096	20

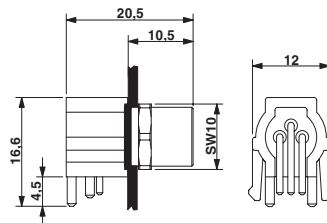
Technical data	3-pos.	4-pos.
Electrical data		
Rated voltage	60 V	30 V
Nominal current I _N	4 A	4 A
Volume resistance	3 mΩ	3 mΩ
Insulation resistance	100 MΩ	100 MΩ
Surge voltage category	II	II
Mechanical data		
Contact carrier material	PA 66	PA 66
Material contact / contact surface	Cu alloy / Au	Cu alloy / Au
Inflammability class acc. to UL 94	HB	HB
Pollution degree	3	3
Degree of protection	IP67	IP67
Type of connection	Solder pins	Solder pins
Temperature data		
Ambient temperature (operation)	-25°C ... 85°C	-25°C ... 85°C



M8 flush-type connector, 90° connection,
two-part flush-type connector



M8 flush-type socket, 180° connection,
two-section flush-type connector



M8 flush-type socket, 90° connection,
two-section flush-type connector

**M12, front mounting,
can be positioned, with 0.5 m long
halogen-free litz wires**

With M16 fastening thread, suitable for SPEEDCON and M12 standard, see page: 68.

For connector pin assignments, see page 61.

More technical data and installation dimensions at:
www.phoenixcontact.net/catalog



M12 pin,
M16 fastening thread



M12 socket,
M16 fastening thread



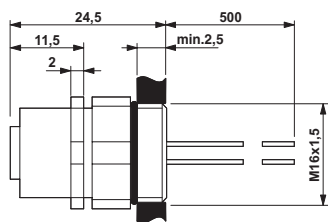
M12 pin,
Pg9 fastening thread



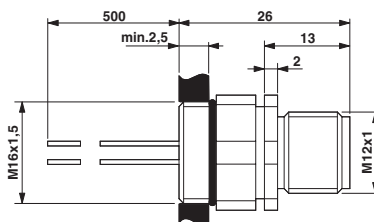
M12 socket,
Pg9 fastening thread

Description	No. of pos.	Encoding	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
-	4	A - standard	1523463	1	1523447	1	1693775	1	1693791	1
-	4	D - data	1552256	1	1535215	1	-	-	-	-
-	5	A - standard	1520068	1	1520042	1	1671124	1	1671108	1
-	5	B - inverse	1520026	1	1519998	1	1515057	1	1515044	1
-	8	A - standard	1523502	1	1523489	1	1513787	1	1513761	1

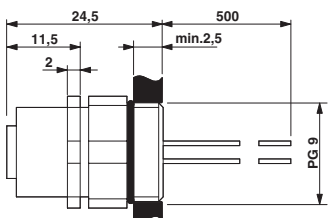
Technical data	4-pos.	5-pos.	8-pos.
Electrical data			
Rated voltage	250 V	60 V	30 V
Nominal current I _N	4 A	4 A	2 A
Volume resistance	3 mΩ	3 mΩ	3 mΩ
Insulation resistance	100 MΩ	100 MΩ	100 MΩ
Surge voltage category	II	II	II
Mechanical data			
Material contact / contact surface	CuZn / Au	CuZn / Au	CuZn / Au
Contact carrier material	PA 66	PA 66	PA 66
Inflammability class acc. to UL 94	V0	V0	V0
Pollution degree	3	3	3
Degree of protection	IP67	IP67	IP67
Conductor cross-section	0.34 mm ²	0.34 mm ²	0.25 mm ²
Cable type	TPE litz wire	TPE litz wire	TPE litz wire
Temperature data			
Ambient temperature (operation)	-25°C ... 85°C	-25°C ... 85°C	-25°C ... 85°C



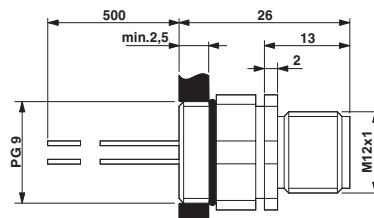
Flush-type socket M12, can be positioned,
fastening thread M16



Flush-type connector M12, can be positioned,
fastening thread M16



Flush-type socket M12, can be positioned,
fastening thread Pg9



Flush-type connector M12, can be positioned,
fastening thread Pg9

Circular connectors – PLUSCON circular

Sensor/actuator flush-type connectors

M12, front mounting, with 0.5 m long halogen-free litz wires

With M16 fastening thread, suitable for SPEEDCON and M12 standard, see page 68.

For connector pin assignments, see page 61.

Flat nut recommended for housing wall thicknesses < 2.5 mm.

More technical data and installation dimensions at: www.phoenixcontact.net/catalog



M12 pin, M16 fastening thread

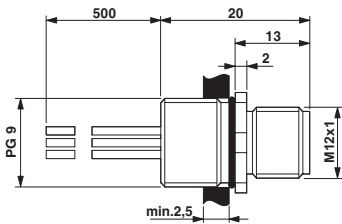
M12 socket, M16 fastening thread

M12 pin, Pg9 fastening thread

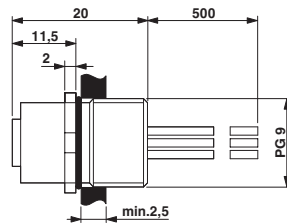
M12 socket, Pg9 fastening thread

Description	No. of pos.	Encoding	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
-	4	A - standard	1523450	1	1523434	1	1693762	1	1693788	1
-	4	D - data	1551558	1	1535202	1	-	-	-	-
-	5	A - standard	1520055	1	1520039	1	1671111	1	1671098	1
-	5	B - inverse	1520013	1	1520000	1	-	-	-	-
-	8	A - standard	1523492	1	1523476	1	1513774	1	1513758	1
-	12	A - standard	1556265	1	1556252	1	-	-	-	-
-	17	A - standard	1556304	1	1556294	1	-	-	-	-
Flat nut	-	-	1504097	100	1504097	100	1504084	100	1504084	100

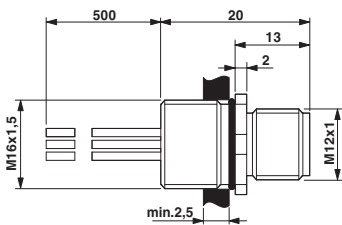
Technical data	4-pos.	5-pos.	8-pos.	12- / 17-pos.
Electrical data				
Rated voltage	250 V	60 V	30 V	30 V
Nominal current I _N	4 A	4 A	2 A	1.5 A
Volume resistance	3 mΩ	3 mΩ	3 mΩ	3 mΩ
Insulation resistance	100 MΩ	100 MΩ	100 MΩ	100 MΩ
Surge voltage category	II	II	II	II
Mechanical data				
Material contact / contact surface	CuZn / Au	CuZn / Au	CuZn / Au	CuZn / Au
Contact carrier material	PA 66	PA 66	PA 66	PA 66
Inflammability class acc. to UL 94	V0	V0	V0	V0
Pollution degree	3	3	3	3
Degree of protection	IP67	IP67	IP67	IP67
Type of connection	Individual wires	Individual wires	Individual wires	Individual wires
Conductor cross-section	0.34 mm ²	0.34 mm ²	0.25 mm ²	0.14 mm ²
Cable type	TPE litz wire	TPE litz wire	TPE litz wire	TPE litz wire
Temperature data				
Ambient temperature (operation)	-25°C ... 85°C	-25°C ... 85°C	-25°C ... 85°C	-25°C ... 85°C



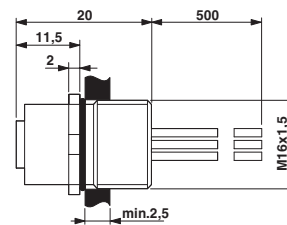
Flush-type connector M12, fastening thread Pg9



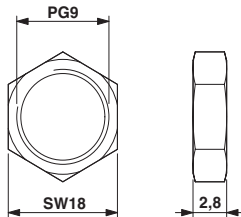
Flush-type socket M12, fastening thread Pg9



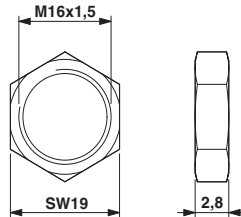
Flush-type connector M12, fastening thread M16



Flush-type socket M12, fastening thread M16



Flat nut Pg9



Flat nut M16

**M12, rear mounting,
with 0.5 m long halogen-free litz wires**

Suitable for SPEEDCON and M12 standard, see page 68.
For connector pin assignments, see page 61.
More technical data and installation dimensions at:
www.phoenixcontact.net/catalog



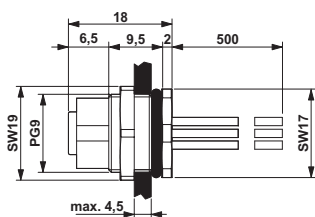
M12 plug,
Pg9 fastening thread

M12 socket,
Pg9 fastening thread

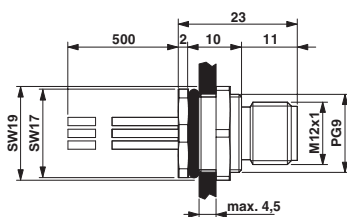
M12 plug,
M12 fastening thread

Description	No. of pos.	Encoding	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
-	4	A - standard	1556618	1	1556621	1	1551875	1
-	4	D - data	1551532	1	1551529	1	1551901	1
-	5	A - standard	1542703	1	1542729	1	1551888	1
-	5	B - inverse	1543663	1	1543676	1	1551891	1
-	8	A - standard	1542716	1	1542732	1	1551914	1
-	12	A - standard	1430459	1	1430446	1	1437122	1
-	17	A - standard	1430475	1	1430462	1	1437135	1

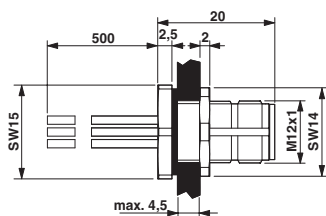
Technical data	4-pos.	5-pos.	8-pos.	12- / 17-pos.
Electrical data				
Rated voltage	250 V	60 V	30 V	30 V
Nominal current I _N	4 A	4 A	2 A	1.5 A
Volume resistance	3 mΩ	3 mΩ	3 mΩ	3 mΩ
Insulation resistance	100 MΩ	100 MΩ	100 MΩ	100 MΩ
Surge voltage category	II	II	II	II
Mechanical data				
Material contact / contact surface	CuZn / Au	CuZn / Au	CuZn / Au	CuZn / Au
Contact carrier material	PA 66	PA 66	PA 66	PA 66
Inflammability class acc. to UL 94	V0	V0	V0	V0
Pollution degree	3	3	3	3
Degree of protection	IP67	IP67	IP67	IP67
Type of connection	Individual wires	Individual wires	Individual wires	Individual wires
Conductor cross-section	0.34 mm ²	0.34 mm ²	0.25 mm ²	0.14 mm ²
Cable type	TPE litz wire	TPE litz wire	TPE litz wire	TPE litz wire
Temperature data				
Ambient temperature (operation)	-25°C ... 85°C	-25°C ... 85°C	-25°C ... 85°C	-25°C ... 85°C



Flush-type socket M12,
fastening thread Pg9



Flush-type connector M12,
fastening thread Pg9



Flush-type connector M12,
fastening thread M12

Circular connectors – PLUSCON circular

Sensor/actuator flush-type connectors

M12, rear mounting, one-piece connectors for wave soldering processes

Suitable for SPEEDCON and M12 standard, see page: 68.

For connector pin assignments, see page 61.

More technical data, installation dimensions and drilling diagrams at: www.phoenixcontact.net/catalog



M12 pin,
contact length: 6 mm



M12 socket,
contact length: 6 mm



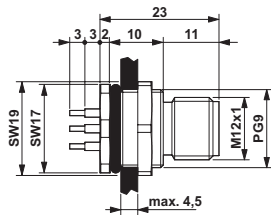
M12 plug,
contact length: 12 mm



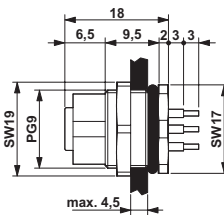
M12 socket,
contact length: 12 mm

Description	No. of pos.	Encoding	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
-	4	A - standard	1553459	20	1553462	20	1558535	20	1558522	20
-	4	D - data	1551516	20	1551503	20	1552308	20	1552272	20
With a shield contact	4	D - data	1553035	20	1553006	20	1558519	20	1558506	20
-	5	A - standard	1542745	20	1542761	20	1552311	20	1552285	20
With a shield contact	5	A - standard	1553048	20	1553019	20	1558551	20	1558548	20
-	5	B - inverse	1543647	20	1543650	20	1552324	20	1552298	20
With a shield contact	5	B - inverse	1553051	20	1553022	20	1558577	20	1558564	20
-	8	A - standard	1542758	20	1542774	20	-	-	-	-
With a shield contact	8	A - standard	1553873	20	1553860	20	-	-	-	-
-	12	A - standard	1559932	20	1559929	20	-	-	-	-
With a shield contact	12	A - standard	1436783	20	1436770	20	-	-	-	-
-	17	A - standard	1559961	20	1559958	20	-	-	-	-
With a shield contact	17	A - standard	1436819	20	1436806	20	-	-	-	-
EMC nut Pg9	-	-	1440177	10	1440177	10	1440177	10	1440177	10

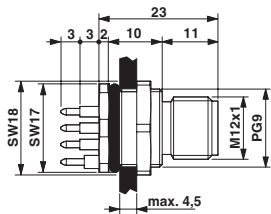
Technical data	4-pos.	5-pos.	8-pos.	12- / 17-pos.
Electrical data				
Rated voltage	250 V	60 V	30 V	30 V
Nominal current I _N	4 A	4 A	2 A	1.5 A
Volume resistance	3 mΩ	3 mΩ	3 mΩ	3 mΩ
Insulation resistance	100 MΩ	100 MΩ	100 MΩ	100 MΩ
Surge voltage category	II	II	II	II
Mechanical data				
Material contact / contact surface	CuZn / Au	CuZn / Au	CuZn / Au	CuZn / Au
Contact carrier material	PA 66	PA 66	PA 66	PA 66
Inflammability class acc. to UL 94	V0	V0	V0	V0
Pollution degree	3	3	3	3
Degree of protection	IP67	IP67	IP67	IP67
Type of connection	Solder pins	Solder pins	Solder pins	Solder pins
Temperature data				
Ambient temperature (operation)	-25°C ... 85°C	-25°C ... 85°C	-25°C ... 85°C	-25°C ... 85°C



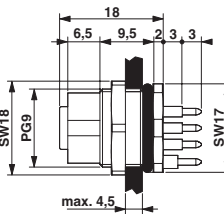
Flush-type M12 plug,
contact length: 6 mm



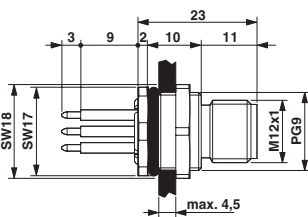
Flush-type M12 socket,
contact length: 6 mm



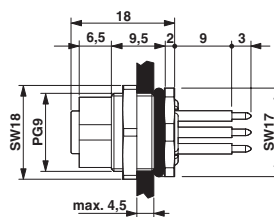
Flush-type M12 plug,
contact length: 6 mm, shield contact



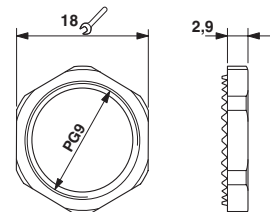
Flush-type M12 socket,
contact length: 6 mm, shield contact



Flush-type M12 plug,
contact length: 12 mm



Flush-type M12 socket,
contact length: 12 mm



EMC nut Pg9

**M12, rear mounting,
one-piece connectors for
wave soldering processes**

Suitable for SPEEDCON and M12 standard, see page 68.

For connector pin assignments, see page 61.

More technical data, installation dimensions and drilling diagrams at:
www.phoenixcontact.net/catalog

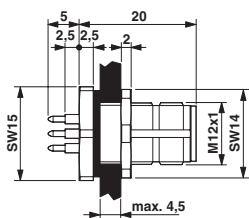


M12 pin,
M12 fastening thread,
without shield contact

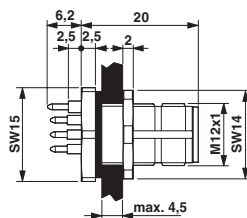
M12 pin,
M12 fastening thread,
with shield contact

Description	No. of pos.	Encoding	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
-	4	A - standard	1551820	20	1552955	20
-	4	D - data	1551859	20	1552984	20
-	5	A - standard	1551833	20	1552968	20
-	5	B - inverse	1551846	20	1552971	20
-	8	A - standard	1551862	20	1552997	20
-	12	A - standard	1559945	20	1437106	20
-	17	A - standard	1559974	20	1437119	20
EMC nut M12	-	-	-	-	1440151	10

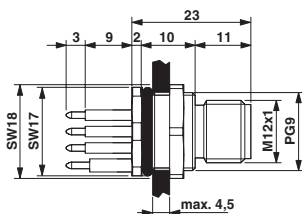
Technical data	4-pos.	5-pos.	8-pos.	12- / 17-pos.
Electrical data				
Rated voltage	250 V	60 V	30 V	30 V
Nominal current I _N	4 A	4 A	2 A	1.5 A
Volume resistance	3 mΩ	3 mΩ	3 mΩ	3 mΩ
Insulation resistance	100 MΩ	100 MΩ	100 MΩ	100 MΩ
Surge voltage category	II	II	II	II
Mechanical data				
Material contact / contact surface	Cu alloy / Au	Cu alloy / Au	CuZn / Au	CuZn / Au
Contact carrier material	PA 66	PA 66	PA 66	PA 66
Inflammability class acc. to UL 94	V0	V0	V0	V0
Pollution degree	3	3	3	3
Degree of protection	IP67	IP67	IP67	IP67
Type of connection	Solder pins	Solder pins	Solder pins	Solder pins
Temperature data				
Ambient temperature (operation)	-25°C ... 85°C	-25°C ... 85°C	-25°C ... 85°C	-25°C ... 85°C



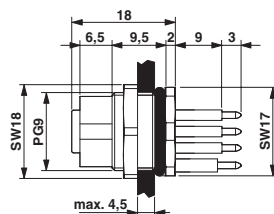
M12 one-part flush-type connector, without shield contact, for wave soldering processes



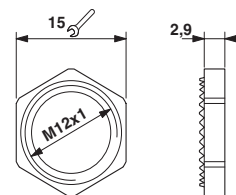
One-section flush-type connector M12, with a shield contact, for wave soldering processes



M12 flush-type connector, contact length: 12 mm, shield contact



M12 flush-type socket, contact length: 12 mm, shield contact



EMC nut M12

Circular connectors – PLUSCON circular

Sensor/actuator flush-type connectors

M12, rear mounting, two-piece connector for wave soldering processes

Suitable for SPEEDCON and M12 standard, see page: 68.

For connector pin assignments, see page 61.

More technical data, installation dimensions and drilling diagrams at: www.phoenixcontact.net/catalog



M12 socket,
180° connection



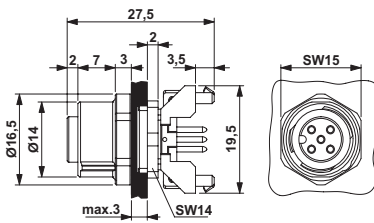
M12 pin,
90° connection



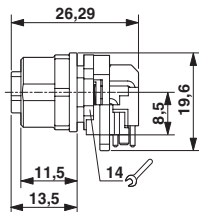
M12 socket,
90° connection

Description	No. of pos.	Encoding	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
-	4	A - standard	-	-	1436589	10	1436564	10
With a shield contact	4	A - standard	-	-	1439913	10	1439900	10
With a shield contact	4	D - data	1542619	10	1436592	10	1436550	10
-	5	A - standard	1542570	10	1436602	10	1436563	10
With a shield contact	5	A - standard	-	-	1438037	10	1438024	10
With a shield contact	5	B - inverse	1542606	10	1436615	10	1436576	10
-	8	A - standard	-	-	1436961	10	1436974	10
With a shield contact	8	A - standard	-	-	1437012	10	1437025	10

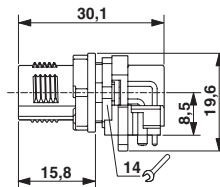
Technical data	4-pos.	5-pos.	8-pos.
Electrical data			
Rated voltage	250 V	60 V	30 V
Nominal current I_N	4 A	4 A	2 A
Volume resistance	3 mΩ	3 mΩ	3 mΩ
Insulation resistance	100 MΩ	100 MΩ	100 MΩ
Surge voltage category	II	II	II
Mechanical data			
Material contact / contact surface	CuZn / Au	CuZn / Au	CuZn / Au
Contact carrier material	PA 66	PA 66	PA 66
Inflammability class acc. to UL 94	V0	V0	V0
Pollution degree	3	3	3
Degree of protection	IP67	IP67	IP67
Type of connection	Solder pins	Solder pins	Solder pins
Temperature data			
Ambient temperature (operation)	-25°C ... 85°C	-25°C ... 85°C	-25°C ... 85°C



Flush-type socket M12,
180° connection, SPEEDCON



M12 flush-type connector,
socket, side view



M12 flush-type connector,
plug, side view

M12, rear mounting, two-piece connector for wave soldering processes

For connector pin assignments, see page 61.

More technical data, installation dimensions and drilling diagrams at:
www.phoenixcontact.net/catalog



M12 pin,
180° connection



M12 socket,
180° connection



M12 pin,
90° connection



M12 socket,
90° connection

Description	No. of pos.	Encoding	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
With a shield contact	4	D - data	-	-	1534627	10	1434866	10	1534630	10
-	5	A - standard	1694211	10	1694237	10	1694224	10	1694240	10
With a shield contact	5	A - standard	1437193	10	-	-	1440054	10	1440067	10
-	5	B - inverse	1514883	10	1515934	10	1527867	10	1527870	10
With a shield contact	5	B - inverse	1437203	10	1437180	10	-	-	-	-
-	8	A - standard	-	-	1556854	10	-	-	-	-

Technical data

Electrical data

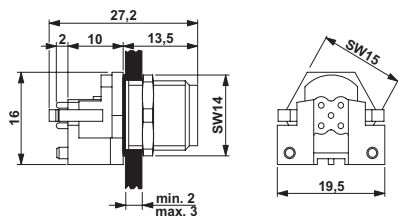
	4-pos.	5-pos.	8-pos.
Rated voltage	250 V	60 V	30 V
Nominal current I _N	4 A	4 A	2 A
Volume resistance	3 mΩ	3 mΩ	3 mΩ
Insulation resistance	100 MΩ	100 MΩ	100 MΩ
Surge voltage category	II	II	II

Mechanical data

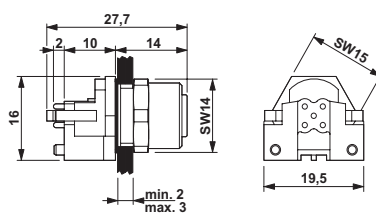
	4-pos.	5-pos.	8-pos.
Material contact / contact surface	CuZn / Au	CuZn / Au	CuZn / Au
Contact carrier material	PA 66	PA 66	PA 66
Inflammability class acc. to UL 94	HB	HB	HB
Pollution degree	3	3	3
Degree of protection	IP67	IP67	IP67
Type of connection	Solder pins	Solder pins	Solder pins

Temperature data

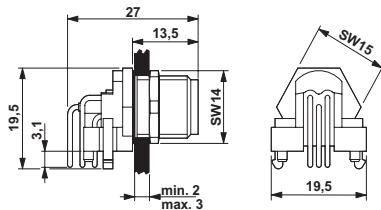
	4-pos.	5-pos.	8-pos.
Ambient temperature (operation)	-25°C ... 85°C	-25°C ... 85°C	-25°C ... 85°C



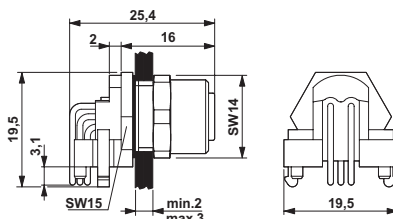
Flush-type connector M12,
180° connection



Flush-type socket M12,
180° connection



Flush-type connector M12,
90° connection



Flush-type socket M12,
90° connection

Circular connectors – PLUSCON circular

Sensor/actuator flush-type connectors

M12, rear mounting, two-piece connector for the reflow process

Suitable for SPEEDCON and M12 standard, see page: 68.

Machine tray packing

For connector pin assignments, see page 61.

More technical data, installation dimensions and drilling diagrams at:
www.phoenixcontact.net/catalog



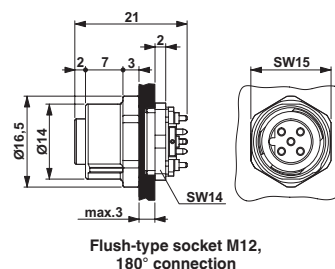
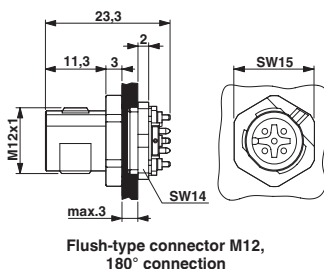
M12 connector,
180° connection



M12 socket,
180° connection

Description	No. of pos.	Encoding	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
-	4	A - standard	1439971	60	1439997	60
With a shield contact	4	A - standard	1439984	60	1440009	60
With a shield contact	4	D - data	1552175	60	1542648	60
-	5	A - standard	1551752	60	1542622	60
With a shield contact	5	A - standard	1439968	60	1434879	60
With a shield contact	5	B - inverse	1552188	60	1542635	60
-	8	A - standard	1551765	60	1542790	60
With a shield contact	8	A - standard	1557578	60	1557549	60

Technical data	4-pos.	5-pos.	8-pos.
Electrical data			
Rated voltage	250 V	60 V	30 V
Nominal current I_N	4 A	4 A	2 A
Volume resistance	3 mΩ	3 mΩ	3 mΩ
Insulation resistance	100 MΩ	100 MΩ	100 MΩ
Surge voltage category	II	II	II
Mechanical data			
Material contact / contact surface	CuZn / Au	CuZn / Au	CuZn / Au
Contact carrier material	PA 66	PA 66	PA 66
Inflammability class acc. to UL 94	V0	V0	V0
Pollution degree	3	3	3
Degree of protection	IP67	IP67	IP67
Type of connection	THR solder connection	THR solder connection	THR solder connection
Temperature data			
Ambient temperature (operation)	-25°C ... 85°C	-25°C ... 85°C	-25°C ... 85°C



**M12 contact carrier
for the reflow process and
M12 housing screw connections**

Suitable for SPEEDCON and M12 standard, see page: 68.

Machine tray packing

For connector pin assignments, see page 61.

More technical data, installation dimensions and drilling diagrams at:
www.phoenixcontact.net/catalog



**M12 pin,
180° connection**



**M12 socket,
180° connection**



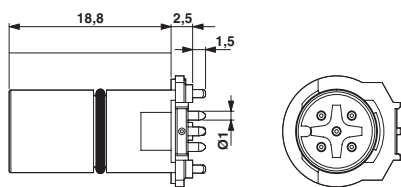
**M12 pin,
screw version**



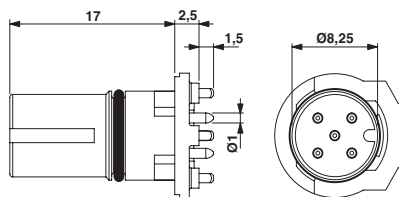
**M12 socket,
screw version**

Description	No. of pos.	Encoding	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
-	4	A - standard	1437164	60	1439942	60	-	-	-	-
With a shield contact	4	A - standard	1439939	60	1439955	60	-	-	-	-
With a shield contact	4	D - data	1552214	60	1551451	60	-	-	-	-
-	5	A - standard	1552227	60	1551448	60	-	-	-	-
With a shield contact	5	A - standard	1432350	60	1432363	60	-	-	-	-
With a shield contact	5	B - inverse	1552230	60	1551435	60	-	-	-	-
-	8	A - standard	1552269	60	1557808	60	-	-	-	-
With a shield contact	8	A - standard	1557581	60	1551422	60	-	-	-	-
SPEEDCON compatible with an O-ring	-	-	-	-	-	-	1551493	60	1552243	60

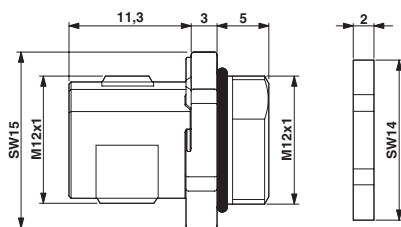
Technical data	4-pos.	5-pos.	8-pos.
Electrical data			
Rated voltage	250 V	60 V	30 V
Nominal current I _N	4 A	4 A	2 A
Volume resistance	3 mΩ	3 mΩ	3 mΩ
Insulation resistance	100 MΩ	100 MΩ	100 MΩ
Surge voltage category	II	II	II
Mechanical data			
Material contact / contact surface	CuZn / Au	CuZn / Au	CuZn / Au
Contact carrier material	PA 66	PA 66	PA 66
Inflammability class acc. to UL 94	V0	V0	V0
Pollution degree	3	3	3
Type of connection	THR solder connection	THR solder connection	THR solder connection
Temperature data			
Ambient temperature (operation)	-25°C ... 85°C	-25°C ... 85°C	-25°C ... 85°C



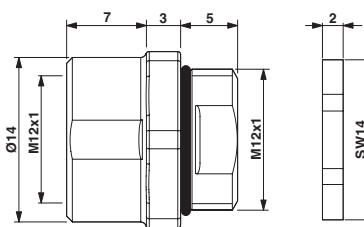
Pin contact carriers M12



Socket contact carriers M12



**M12 pin, screw version,
with O-ring**



**M12 socket, screw version,
with O-ring**

Circular connectors – PLUSCON circular

Sensor/actuator flush-type connectors

M12, contact carrier straight, for wave soldering processes and housing screw connections

Suitable for SPEEDCON and M12 standard, see page: 68.

For connector pin assignments, see page 61.

More technical data, installation dimensions and drilling diagrams at: www.phoenixcontact.net/catalog



M12 socket contact carrier, 180° connection



M12 socket, screw version



M12 socket, press-in version



M12 pin, press-in version

Description	No. of pos.	Encoding	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
With a shield contact	4	D - data	1551480	20	-	-	-	-	-	-
-	5	A - standard	1551464	20	-	-	-	-	-	-
With a shield contact	5	B - inverse	1551477	20	-	-	-	-	-	-
SPEEDCON compatible with an O-ring	-	-	-	-	1552243	60	-	-	-	-
Screw connection, for all straight and angled M12 contact carriers	-	-	-	-	-	-	1437889	10	1437892	10

Technical data

Electrical data

Rated voltage

4-pos.

5-pos.

Nominal current I_N

Volume resistance

Insulation resistance

Surge voltage category

Mechanical data

Material contact / contact surface

Contact carrier material

Inflammability class acc. to UL 94

Pollution degree

Type of connection

Temperature data

Ambient temperature (operation)

250 V

60 V

4 A

4 A

3 mΩ

3 mΩ

100 MΩ

100 MΩ

II

II

CuZn / Au

CuZn / Au

PA 66

PA 66

V0

V0

3

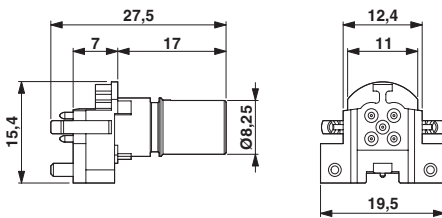
3

Solder connection

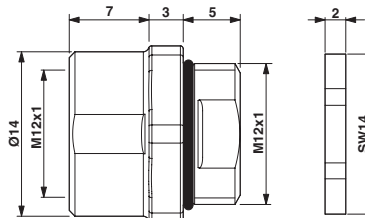
Solder connection

-25°C ... 85°C

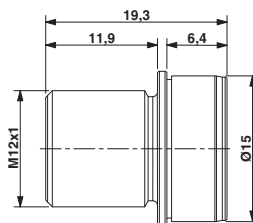
-25°C ... 85°C



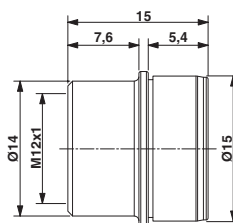
M12 contact carrier, 180° connection



M12 socket, screw version, with O-ring



M12 pin, press-in version



M12 socket, press-in version

M12, contact carrier angled, for wave soldering processes and housing screw connections

Suitable for SPEEDCON and M12 standard, see page: 68.

For connector pin assignments, see page 61.

More technical data, installation dimensions and drilling diagrams at: www.phoenixcontact.net/catalog



M12 pin,
90° connection



M12 socket,
90° connection



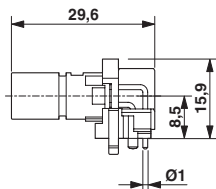
M12 pin,
screw version



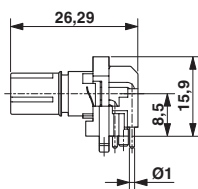
M12 socket,
screw version

Description	No. of pos.	Encoding	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
-	4	A - standard	1436660	20	1436628	20	-	-	-	-
With a shield contact	4	A - standard	1439887	20	1432444	20	-	-	-	-
With a shield contact	4	D - data	1436673	20	1432457	20	-	-	-	-
-	5	A - standard	1436686	20	1436644	20	-	-	-	-
With a shield contact	5	A - standard	1439890	20	1432431	20	-	-	-	-
With a shield contact	5	B - inverse	1436699	20	1432512	20	-	-	-	-
-	8	A - standard	1436987	20	1436990	20	-	-	-	-
With a shield contact	8	A - standard	1437038	20	1437009	20	-	-	-	-
SPEEDCON compatible with flat seal			-	-	-	-	1436709	10	1432460	10

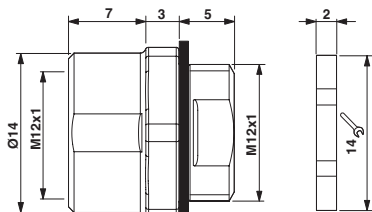
Technical data	4-pos.	5-pos.	8-pos.
Electrical data			
Rated voltage	250 V	60 V	30 V
Nominal current I _N	4 A	4 A	2 A
Volume resistance	3 mΩ	3 mΩ	3 mΩ
Insulation resistance	100 MΩ	100 MΩ	100 MΩ
Surge voltage category	II	II	II
Mechanical data			
Material contact / contact surface	CuZn / Au	CuZn / Au	CuZn / Au
Contact carrier material	PA 66	PA 66	PA 66
Inflammability class acc. to UL 94	V0	V0	V0
Pollution degree	3	3	3
Type of connection	Solder pins	Solder pins	Solder pins
Temperature data			
Ambient temperature (operation)	-25°C ... 85°C	-25°C ... 85°C	-25°C ... 85°C



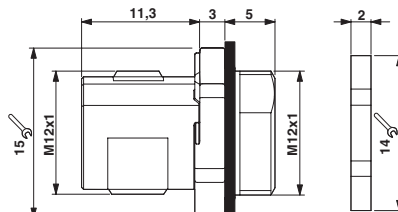
M12 flush-type connector, plug,
contact carrier, side view



M12 flush-type connector, socket,
contact carrier, side view



M12 socket,
screw version, with flat seal



M12 pin,
screw version, with flat seal

Circular connectors – PLUSCON circular

Sensor/actuator flush-type connectors

M12 contact carrier, plastic, with solder cups or PCB connection

For connector pin assignments, see page 61.

More technical data, installation dimensions and drilling diagrams at: www.phoenixcontact.net/catalog



M12 pin,
M16 fastening thread,
with solder cups



M12 pin,
M12 fastening thread,
with solder cups



M12 socket,
Pg9 fastening thread,
with solder cups

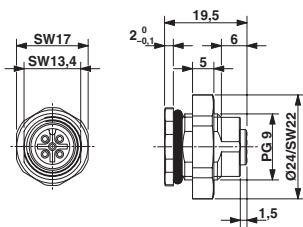


M12 socket,
Pg9 fastening thread,
PCB connection

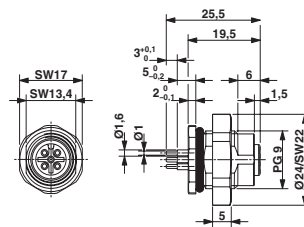
Description	No. of pos.	Encoding	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
Front mounting	5	A - standard	1436398	20	1436437	20	-	-	-	-
Front mounting	8	A - standard	1436408	20	1436440	20	-	-	-	-
Rear mounting	5	A - standard	-	-	-	-	1436314	20	1436330	20
Rear mounting	8	A - standard	-	-	-	-	1436327	20	1436343	20

Technical data

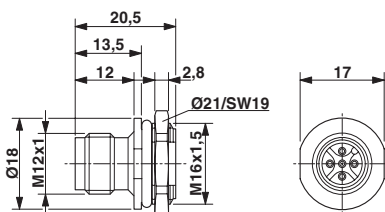
Electrical data	5-pos.	8-pos.
Rated voltage	60 V	30 V
Nominal current I_N	4 A	2 A
Volume resistance	3 m Ω	3 m Ω
Insulation resistance	100 M Ω	100 M Ω
Surge voltage category	II	II
Mechanical data		
Material contact / contact surface	CuZn / Au	CuZn / Au
Contact carrier material	PA 66	PA 66
Inflammability class acc. to UL 94	HB	HB
Pollution degree	3	3
Temperature data		
Ambient temperature (operation)	-40°C ... 85°C	-40°C ... 85°C



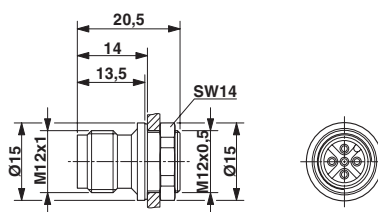
M12 socket,
Pg9 fastening thread, solder cups



M12 socket,
Pg9 fastening thread, PCB connection



M12 pin,
M16 fastening thread, solder cups



M12 pin,
M12 fastening thread, solder cups

**M12 contact carrier, plastic,
with 0.5 m TPE litz wire**

For connector pin assignments, see page 61.
More technical data and installation dimensions at:
www.phoenixcontact.net/catalog

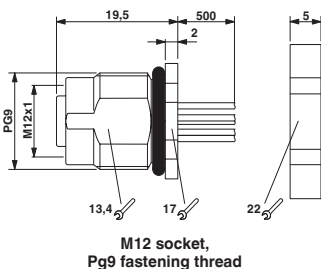
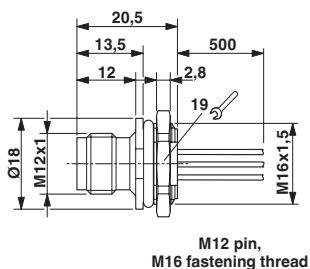


**M12 pin,
M16 fastening thread**

**M12 socket,
Pg9 fastening thread**

Description	No. of pos.	Encoding	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
Front mounting	5	A - standard	1436411	1	-	-
Front mounting	8	A - standard	1436424	1	-	-
Rear mounting	5	A - standard	-	-	1436356	1
Rear mounting	8	A - standard	-	-	1436369	1

Technical data	5-pos.	8-pos.
Electrical data		
Rated voltage	60 V	30 V
Nominal current I _N	4 A	2 A
Volume resistance	3 mΩ	3 mΩ
Insulation resistance	100 MΩ	100 MΩ
Surge voltage category	II	II
Mechanical data		
Material contact / contact surface	CuZn / Au	CuZn / Au
Contact carrier material	PA 66	PA 66
Inflammability class acc. to UL 94	HB	HB
Pollution degree	3	3
Type of connection	Individual wires	Individual wires
Temperature data		
Ambient temperature (operation)	-40°C ... 85°C	-40°C ... 85°C

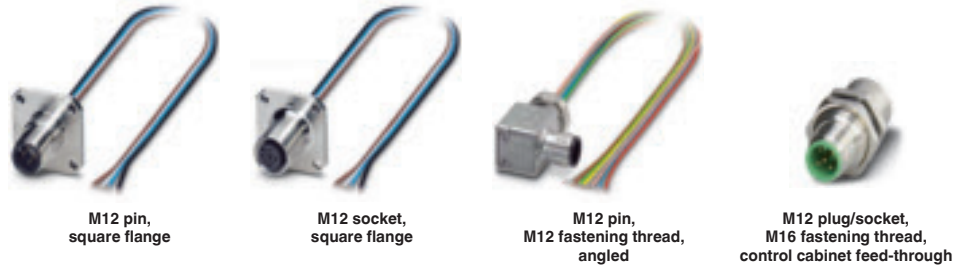


Circular connectors – PLUSCON circular

Sensor/actuator flush-type connectors

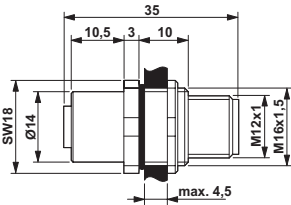
M12 special connector

For connector pin assignments, see page 61.
More technical data and installation dimensions at:
www.phoenixcontact.net/catalog

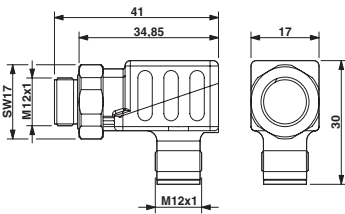


Description	No. of pos.	Encoding	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
-	4	A - standard	1525856	1	1525869	1	-	-	-	-
-	5	A - standard	1525872	1	1525885	1	-	-	1551671	1
-	5	B - inverse	-	-	-	-	-	-	1551684	1
-	8	A - standard	1514760	1	1515908	1	1543427	1	1551697	1

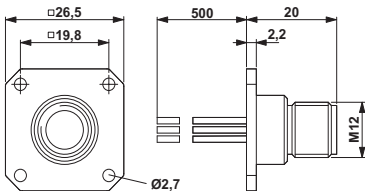
Technical data	4-pos.	5-pos.	8-pos.
Electrical data			
Rated voltage	250 V	60 V	30 V
Nominal current I_N	4 A	4 A	2 A
Volume resistance	3 mΩ	3 mΩ	3 mΩ
Insulation resistance	100 MΩ	100 MΩ	100 MΩ
Surge voltage category	II	II	II



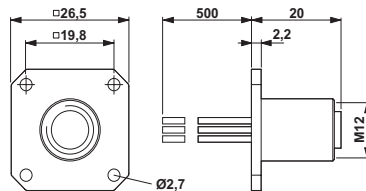
Control cabinet feed-through,
M12 connection on both sides



M12 x 1 male connector, angled,
shielded, SPEEDCON



M12 pin,
square flange



M12 socket,
square flange

**Mini 7/8", front mounting
with halogen-free litz wires**

Flat nut recommended for housing wall thicknesses < 2.5 mm.
For connector pin assignments, see page 62.
More technical data and installation dimensions at:
www.phoenixcontact.net/catalog



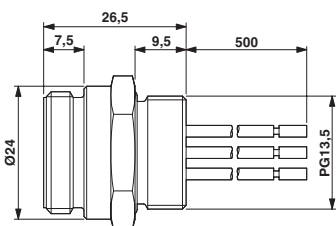
7/8" pin,
Pg13,5 fastening thread



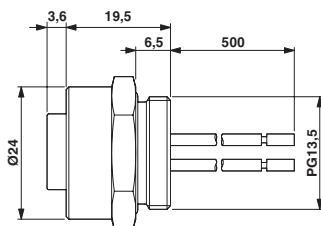
7/8" socket,
Pg13,5 fastening thread

Description	No. of pos.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
-	3	1521410	1	1521407	1
-	4	1521436	1	1521423	1
-	5	1521452	1	1521449	1
Flat nut Pg13.5	-	1539143	100	1539143	100

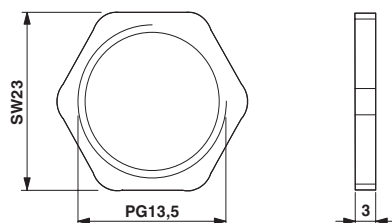
Technical data	3-pos.	4-pos.	5-pos.
Electrical data			
Rated voltage	250 V	250 V	250 V
Nominal current I _N	12 A	9 A	9 A
Volume resistance	5 mΩ	5 mΩ	5 mΩ
Insulation resistance	100 MΩ	100 MΩ	100 MΩ
Surge voltage category	II	II	II
Mechanical data			
Material contact / contact surface	CuZn / Au	CuZn / Au	CuZn / Au
Contact carrier material	PUR	PUR	PUR
Inflammability class acc. to UL 94	HB	HB	HB
Pollution degree	3	3	3
Degree of protection	IP67	IP67	IP67
Type of connection	Individual wires	Individual wires	Individual wires
Conductor cross-section	0.75 mm ²	0.75 mm ²	0.75 mm ²
Cable type	PE litz wires	PE litz wires	PE litz wires
Cable length	0.5 m	0.5 m	0.5 m
Temperature data			
Ambient temperature (operation)	-40°C ... 85°C	-40°C ... 85°C	-40°C ... 85°C



Flush-type connector 7/8"



Flush-type socket 7/8"



Flat nut Pg13.5

Circular connectors – PLUSCON circular

Sensor/actuator connectors for assembly

M8, unshielded, solder connection

Notes:
 For connector pin assignments, see page 60.
 For further technical data, see:
www.phoenixcontact.net/catalog



M8 pin, straight



M8 socket, straight



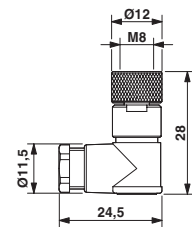
M8 pin, angled



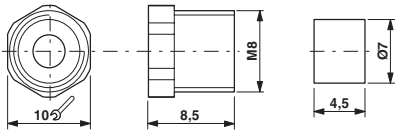
M8 socket, angled

Description	No. of pos.	Cable passage [mm]	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
-	3	3.50 - 5.00	1681156	1	1681172	1	1699902	1	1529399	1
-	4	3.50 - 5.00	1681169	1	1681185	1	1554209	1	1513444	1
Seal set for 2.5 ...3.5 mm cable diameter			1436945	5	1436945	5	1436945	5	1436945	5

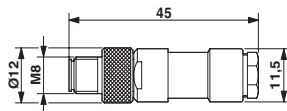
Technical data	3-pos.	4-pos.
Electrical data		
Rated voltage	60 V	30 V
Nominal current I _N	4 A	4 A
Volume resistance	3 mΩ	3 mΩ
Insulation resistance	100 MΩ	100 MΩ
Surge voltage category	II	II
Mechanical data		
Material contact / contact surface	Cu alloy / Au	Cu alloy / Au
Contact carrier material	PUR / PA66	PUR / PA66
Inflammability class acc. to UL 94	V0	V0
Pollution degree	3	3
Degree of protection	IP67	IP67
Connection data		
Connection cross-section min/max	0.08 mm ² / 0.34 mm ²	0.08 mm ² / 0.34 mm ²
Connection cross-section AWG min/max	28 / 22	28 / 22
Temperature data		
Ambient temperature (operation)	-40°C ... 85°C	-40°C ... 85°C



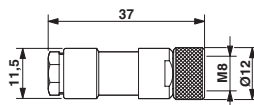
M8 pin, angled



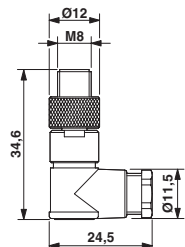
Seal set for 2.5 ...3.5 mm cable diameter



M8 connector, straight



M8 socket, straight



M8 socket, angled

M8, unshielded, screw and Piercecon® fast connection

Notes:
For connector pin assignments, see page 60.
For further technical data, see:
www.phoenixcontact.net/catalog



M8 plug, straight, screw connection



M8 socket, straight, screw connection



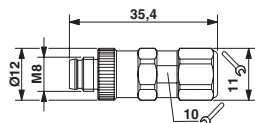
M8 pin, straight, Piercecon® connection



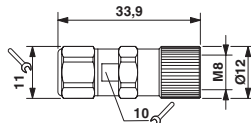
M8 socket, straight, Piercecon® connection

Description	No. of pos.	Cross-section [mm ²]	Cable passage [mm]	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
-	3	0.14 - 0.50	3.50 - 5.00	1501252	1	1506888	1	-	-	-	-
-	3	0.14 - 0.38	3.00 - 5.00	-	-	-	-	1506752	1	1506778	1
-	4	0.14 - 0.50	3.50 - 5.00	1501265	1	1506891	1	-	-	-	-
-	4	0.14 - 0.38	3.00 - 5.00	-	-	-	-	1506765	1	1506781	1
Seal set for 2.5 ... 3.5 mm cable diameter				1436945	5	1436945	5	-	-	-	-

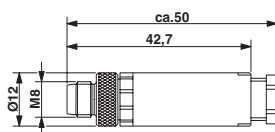
Technical data	3-pos., screw connection	4-pos., screw connection	3-pos., Piercecon® connection	4-pos., Piercecon® connection
Electrical data				
Rated voltage	60 V	30 V	60 V	30 V
Nominal current I _N	4 A	4 A	4 A	4 A
Volume resistance	3 mΩ	3 mΩ	3 mΩ	3 mΩ
Insulation resistance	100 MΩ	100 MΩ	100 MΩ	100 MΩ
Surge voltage category	II	II	II	II
Mechanical data				
Material contact / contact surface	Cu alloy / Au	Cu alloy / Au	CuZn / Au	CuZn / Au
Contact carrier material	PUR / PA66	PUR / PA66	PA 66	PA 66
Inflammability class acc. to UL 94	V0	V0	V0	V0
Pollution degree	3	3	3	3
Degree of protection	IP67	IP67	IP68	IP68
Connection data				
External diameter	3.5 mm ... 5 mm	3.5 mm ... 5 mm	3 mm ... 5 mm	3 mm ... 5 mm
Connection cross-section min/max	0.14 mm ² / 0.5 mm ²	0.14 mm ² / 0.5 mm ²	0.14 mm ² / 0.38 mm ²	0.14 mm ² / 0.38 mm ²
Connection cross-section AWG min/max	26 / 20	26 / 20	22 / 26	22 / 26
Temperature data				
Ambient temperature (operation)	-40°C ... 85°C	-40°C ... 85°C	-25°C ... 90°C	-25°C ... 90°C



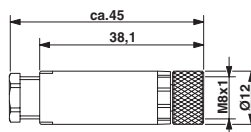
M8 plug, Piercecon® connection



M8 socket, Piercecon® connection



M8 plug, screw connection



M8 socket, screw connection

Circular connectors – PLUSCON circular

Sensor/actuator connectors for assembly

M8, shielded, solder connection

Notes:
For connector pin assignments, see page 60.
For further technical data, see:
www.phoenixcontact.net/catalog



M8 pin,
straight



M8 socket,
straight



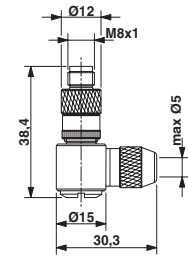
M8 pin,
angled



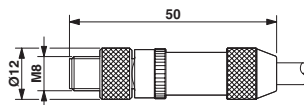
M8 socket,
angled

Description	No. of pos.	Cable passage [mm]	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
Metal housing	3	3.50 - 5.00	1506901	1	1506927	1	1436453	1	1436479	1
Metal housing	4	3.50 - 5.00	1506914	1	1506930	1	1436466	1	1436482	1

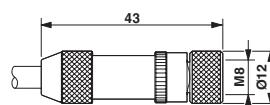
Technical data	3-pos., solder connection	4-pos., solder connection
Electrical data		
Rated voltage	60 V	30 V
Nominal current I _N	4 A	4 A
Volume resistance	3 mΩ	3 mΩ
Insulation resistance	100 MΩ	100 MΩ
Surge voltage category	II	II
Mechanical data		
Material contact / contact surface	CuSn / Au	CuSn / Au
Contact carrier material	PUR / PA66	PUR / PA66
Inflammability class acc. to UL 94	HB	HB
Pollution degree	3	3
Degree of protection	IP67	IP67
Connection data		
External diameter	3.5 mm ... 5 mm	3.5 mm ... 5 mm
Connection cross-section min/max	0.08 mm ² / 0.34 mm ²	0.08 mm ² / 0.34 mm ²
Connection cross-section AWG min/max	28 / 22	28 / 22
Temperature data		
Ambient temperature (operation)	-40°C ... 85°C	-40°C ... 85°C



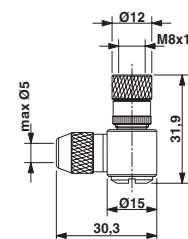
M8 pin,
solder connection, angled



M8 pin,
solder connection, straight



M8 socket,
solder connection, straight



M8 socket,
solder connection, angled

**M8, shielded,
screw connection**

Notes:

For connector pin assignments, see page 61.

For further technical data, see:

www.phoenixcontact.net/catalog



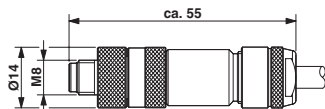
**M8 plug, straight,
screw connection**



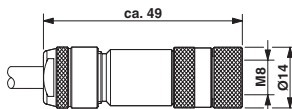
**M8 socket, straight,
screw connection**

Description	No. of pos.	Cable passage [mm]	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
Metal housing	3	3.50 - 5.20	1542884	1	1542907	1
Metal housing	4	3.50 - 5.20	1542897	1	1542910	1

Technical data	3-pos., screw connection	4-pos., screw connection
Electrical data		
Rated voltage	60 V	30 V
Nominal current I _N	4 A	4 A
Volume resistance	3 mΩ	3 mΩ
Insulation resistance	100 MΩ	100 MΩ
Surge voltage category	II	II
No. of pos.	3	4
Mechanical data		
Material contact / contact surface	CuSn / Au	CuSn / Au
Contact carrier material	PUR / PA66	PUR / PA66
Inflammability class acc. to UL 94	HB	HB
Pollution degree	3	3
Degree of protection	IP67	IP67
Connection data		
External diameter	3.5 mm ... 5.2 mm	3.5 mm ... 5.2 mm
Connection cross-section min/max	0.14 mm ² / 0.34 mm ²	0.14 mm ² / 0.34 mm ²
Connection cross-section AWG min/max	26 / 22	26 / 22
Temperature data		
Ambient temperature (operation)	-40°C ... 85°C	-40°C ... 85°C



**M8 pin,
screw connection**



**M8 socket,
screw connection**

Circular connectors – PLUSCON circular

Sensor/actuator connectors for assembly

M12, unshielded, spring-cage connection

Notes:

Suitable for SPEEDCON and M12 standard, see page: 68.

For connector pin assignments, see page 61.

For further technical data, see:

www.phoenixcontact.net/catalog



M12 pin, straight



M12 socket, straight



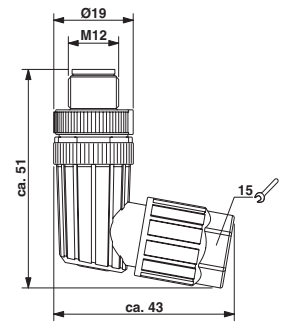
M12 pin, angled



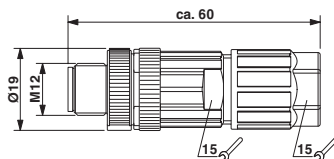
M12 socket, angled

Description	No. of pos.	Cable passage [mm]	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
Plastic housing	4	4.00 - 8.00	1432635	1	1432619	1	1432606	1	1432622	1
Plastic housing	5	4.00 - 8.00	1432567	1	1432583	1	1432570	1	1432596	1

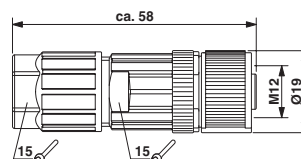
Technical data	4-pos.	5-pos.
Electrical data		
Rated voltage	250 V	60 V
Nominal current I _N	4 A	4 A
Volume resistance	8 mΩ	8 mΩ
Insulation resistance	100 MΩ	100 MΩ
Surge voltage category	II	II
Encoding	A - standard	A - standard
Mechanical data		
Material contact / contact surface	CuSn / Ni/Au	CuSn / Ni/Au
Contact carrier material	PA 66	PA 66
Inflammability class acc. to UL 94	V0	V0
Pollution degree	3	3
Degree of protection	IP67	IP67
Connection data		
External diameter	4 mm ... 8 mm	4 mm ... 8 mm
Connection cross-section min/max	0.14 mm ² / 0.5 mm ²	0.14 mm ² / 0.5 mm ²
Connection cross-section AWG min/max	26 / 20	26 / 20
Temperature data		
Ambient temperature (operation)	-40°C ... 85°C	-40°C ... 85°C



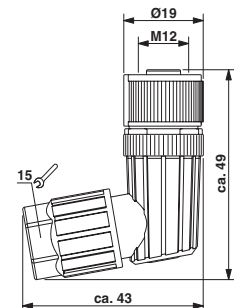
M12 SPEEDCON connector, angled



M12-SPEEDCON socket, straight



M12 SPEEDCON connector, straight



M12-SPEEDCON socket, angled

**M12, unshielded,
screw connection**

Notes:
SPEEDCON and plastic knurls without key areas.
For connector pin assignments, see page 61.
For further technical data, see:
www.phoenixcontact.net/catalog



M12 pin,
straight

M12 socket,
straight

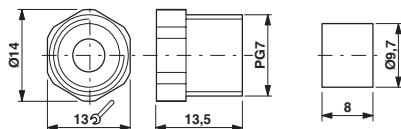
M12 pin,
angled

M12 socket,
angled

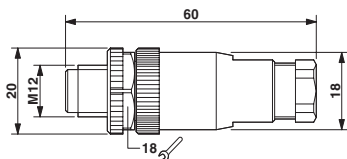
Description	No. of pos.	Cable passage [mm]	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
SPEEDCON knurl	4	4.00 - 6.00	1542952	1	1543029	1	1542981	1	1543058	1
SPEEDCON knurl	5	4.00 - 6.00	1542965	1	1543032	1	1542994	1	1543061	1
SPEEDCON knurl	5	6.00 - 8.00	1542978	1	1543045	1	1543003	1	1543414	1
Metal knurl	4	4.00 - 6.00	1662528	1	1681127	1	1681101	1	1681143	1
Metal knurl	5	4.00 - 6.00	1663116	1	1662968	1	1663129	1	1662984	1
Metal knurl	5	6.00 - 8.00	1681460	1	1681486	1	1681473	1	1681499	1
Metal knurl	8	6.00 - 8.00	1513334	1	1513347	1	-	-	-	-
Plastic knurl	4	4.00 - 6.00	1681088	1	1681114	1	1681091	1	1681130	1
Plastic knurl	5	4.00 - 6.00	1662256	1	1662298	1	1662269	1	1662308	1
Plastic knurl	5	6.00 - 8.00	1500774	1	1500787	1	1513431	1	1500790	1
Seal set for 2.5 ...3.5 mm cable diameter			1436505	5	1436505	5	1436505	5	1436505	5

Technical data

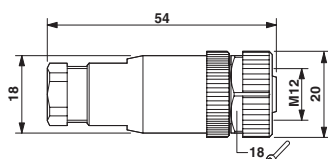
	4-pos.	5-pos.	8-pos.
Electrical data			
Rated voltage	250 V	60 V	30 V
Nominal current I _N	4 A	4 A	2 A
Volume resistance	8 mΩ	8 mΩ	3 mΩ
Insulation resistance	100 MΩ	100 MΩ	100 MΩ
Surge voltage category	II	II	II
Encoding	A - standard	A - standard	A - standard
Mechanical data			
Material contact / contact surface	Cu alloy / CuSnZn	Cu alloy / CuSnZn	CuZn / Au
Contact carrier material	PA 66	PA 66	PA 66
Inflammability class acc. to UL 94	V0	V0	V0
Pollution degree	3	3	3
Degree of protection	IP67	IP67	IP67
Connection data			
Connection cross-section min/max	0.25 mm ² / 0.75 mm ²	0.25 mm ² / 0.75 mm ²	0.25 mm ² / 0.75 mm ²
Connection cross-section AWG min/max	24 / 18	24 / 18	24 / 18
Temperature data			
Ambient temperature (operation)	-40°C ... 85°C	-40°C ... 85°C	-40°C ... 85°C



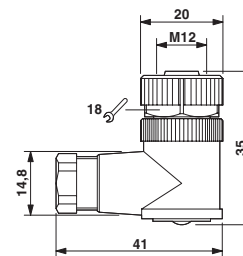
Seal set for 2.5 ...3.5 mm cable diameter



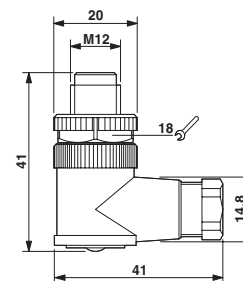
M12 pin, straight,
metal knurl



M12 socket, straight,
metal knurl



M12 socket, angled,
metal knurl



M12 pin, angled,
metal knurl

Circular connectors – PLUSCON circular

Sensor/actuator connectors for assembly

M12 DUO connector, unshielded, screw connection

Notes:
 SPEEDCON and plastic knurls without key areas.
 For connector pin assignments, see page 61.
 For further technical data, see:
www.phoenixcontact.net/catalog



M12 pin,
straight



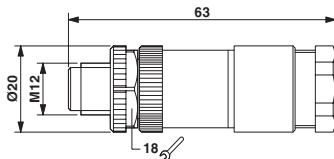
M12 socket,
straight



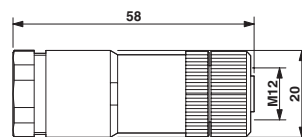
M12 pin,
angled

Description	No. of pos.	Cable passage [mm]	4-pos.		5-pos.		6-pos.	
			Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
SPEEDCON knurl	5	2 x 3.00 - 5.20	1543016	1	-	-	-	-
Metal knurl	4	2 x 3.00 - 5.20	1507052	1	-	-	-	-
Metal knurl	5	2 x 3.00 - 5.20	1662748	1	-	-	-	-
Plastic knurl	5	3.00 - 5.20	1662285	1	1694596	1	1531044	1

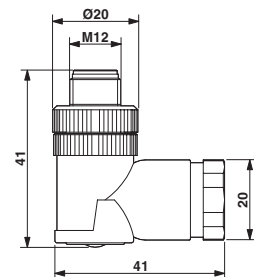
Technical data	4-pos.	5-pos.
Electrical data		
Rated voltage	250 V	60 V
Nominal current I_N	4 A	4 A
Volume resistance	8 mΩ	8 mΩ
Insulation resistance	100 MΩ	100 MΩ
Surge voltage category	II	II
Encoding	A - standard	A - standard
Mechanical data		
Material contact / contact surface	CuZn / CuSnZn	CuZn / CuSnZn
Contact carrier material	PA 66	PA 66
Inflammability class acc. to UL 94	V0	V0
Pollution degree	3	3
Degree of protection	IP67	IP67
Connection data		
Connection cross-section min/max	0.25 mm ² / 0.75 mm ²	0.25 mm ² / 0.75 mm ²
Connection cross-section AWG min/max	24 / 18	24 / 18
Temperature data		
Ambient temperature (operation)	-40°C ... 85°C	-40°C ... 85°C



M12 pin, straight, metal knurl



M12 socket, straight



M12 pin, angled

Circular connectors – PLUSCON circular

Sensor/actuator connectors for assembly

M12, unshielded, QUICKON fast connection technology

Notes:

For connector pin assignments, see page 61.

For description of connection method, see page 16.

For further technical data, see:

www.phoenixcontact.net/catalog



M12 pin, straight,
conductor cross-section:
0.14 mm² ... 0.34 mm²



M12 socket, straight,
conductor cross-section:
0.14 mm² ... 0.34 mm²



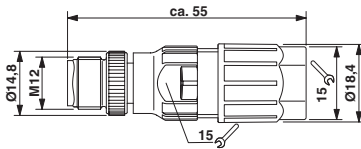
M12 pin, straight,
conductor cross-section:
0.34 mm² ... 0.75 mm²



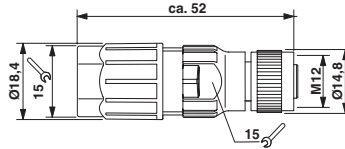
M12 socket, straight,
conductor cross-section:
0.34 mm² ... 0.75 mm²

Description	No. of pos.	Cable passage [mm]	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
SPEEDCON knurl	4	3.50 - 6.00	1521575	1	1521588	1	-	-	-	-
SPEEDCON knurl	4	4.00 - 8.00	-	-	-	-	1521591	1	1521601	1
Metal knurl	4	3.50 - 6.00	1641691	1	1641688	1	-	-	-	-
Metal knurl	4	4.00 - 8.00	-	-	-	-	1641785	1	1641772	1
Plastic knurl	4	3.50 - 6.00	1641714	1	1641701	1	-	-	-	-
Plastic knurl	4	4.00 - 8.00	-	-	-	-	1641769	1	1641756	1

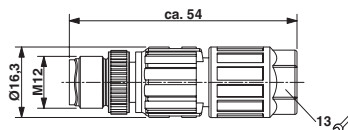
Technical data	0.34 mm ²	0.75 mm ²
Electrical data		
Rated voltage	125 V	250 V
Nominal current I _N	4 A	4 A
Volume resistance	5 mΩ	5 mΩ
Insulation resistance	100 MΩ	100 MΩ
Surge voltage category	II	II
Mechanical data		
Material contact / contact surface	CuSn / Ni/Au	CuSn / Ni/Au
Contact carrier material	PA 66	PA 66
Inflammability class acc. to UL 94	V0	V0
Pollution degree	3	3
Degree of protection	IP65/67	IP65/67
QUICKON connection data		
External diameter	3.5 mm ... 6 mm	4 mm ... 8 mm
Connection cross-section min/max	0.14 mm ² / 0.34 mm ²	0.34 mm ² / 0.75 mm ²
Connection cross-section AWG min/max	26 / 22	22 / 18
Temperature data		
Ambient temperature (operation)	-25°C ... 80°C	-25°C ... 80°C



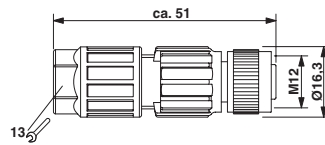
M12 pin, straight,
QUICKON connection: 0.34 mm² ... 0.75 mm²



M12 socket, straight,
QUICKON connection: 0.34 mm² ... 0.75 mm²



M12 pin, straight,
QUICKON connection: 0.14 mm² ... 0.34 mm²



M12 socket, straight,
QUICKON connection: 0.14 mm² ... 0.34 mm²

QUICKON cable connectors

Notes:

Cable connectors for 0.34 and 0.75 mm² for sensor/actuator applications.

Position identification 1-4 (without PE).

Version up to 1.5 mm² with and without PE marking.



Cable connector, black, with 2 QUICKON nuts



Cable connector, black, with 2 QUICKON nuts



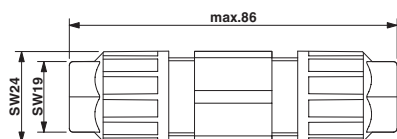
Cable connector, black, with 2 QUICKON nuts



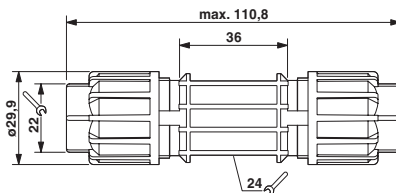
Cable connector, black, with 2 QUICKON nuts

Description	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
4-pos., cable Ø: 3.5-6 mm	1641879	1	-	-	-	-	-	-
4-pos., cable Ø: 4-8 mm	-	-	1642140	1	-	-	-	-
4-pos., cable Ø: 6-12 mm	-	-	-	-	1642153	1	-	-
3+PE-pos., cable Ø: 6-10 mm	-	-	-	-	-	-	1582211	1
3+PE-pos., cable Ø: 9-14 mm	-	-	-	-	-	-	1582214	1

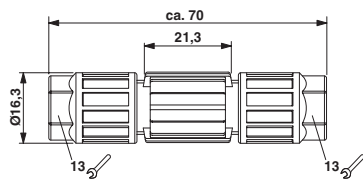
Technical data	0.34 mm ²	0.75 mm ²	1.5 mm ²	2.5 mm ²
Electrical data				
Rated voltage	125 V	250 V	500 V	-
Nominal current I _N	5 A	9 A	15 A	20 A
Volume resistance	5 mΩ	5 mΩ	5 mΩ	3 mΩ
Insulation resistance	100 MΩ	100 MΩ	100 MΩ	-
Surge voltage category	III	III	III	III
Mechanical data				
Material contact / contact surface	Steel / tin-plated	Steel / tin-plated	CuZn / tin-plated	CuZn / tin-plated
Contact carrier material	PA	PA	PA	PA
Inflammability class acc. to UL 94	V0	V0	V0	V0
Pollution degree	3	3	3	3
Degree of protection	IP65/67	IP65/67	IP65/67	IP68, 24 h / 2 m
QUICKON connection data				
External diameter	3.5 mm ... 6 mm	4 mm ... 8 mm	6 mm ... 12 mm	-
Conductor cross-section [mm ²] solid / stranded	0.14 mm ² ... 0.25 mm ² / 0.14 mm ² ... 0.34 mm ²	0.34 mm ² ... 0.5 mm ² / 0.34 mm ² ... 0.75 mm ²	0.75 mm ² ... 1 mm ² / 0.75 mm ² ... 1.5 mm ²	1 mm ² ... 1.5 mm ² / 1.5 mm ² ... 2.5 mm ²
Conductor cross-section [AWG]	26 ... 22	22 ... 18	18 ... 16	16 ... 14
Temperature data				
Ambient temperature (operation)	-40°C ... 80°C	-40°C ... 80°C	-40°C ... 80°C	-40°C ... 80°C



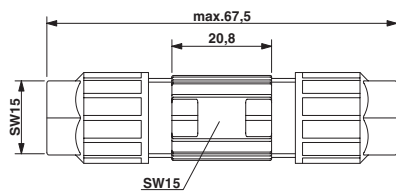
Cable connector, QUICKON connection: 0.75 mm² ... 1.5 mm²



Cable connector, QUICKON connection: 1.0 mm² ... 2.5 mm²



Cable connector, QUICKON connection: 0.14 mm² ... 0.34 mm²



Cable connector, QUICKON connection: 0.34 mm² ... 0.75 mm²

Circular connectors – PLUSCON circular

Sensor/actuator connectors for assembly

M12, shielded, spring-cage connection

Notes:

Suitable for SPEEDCON and M12 standard, see page: 68.

For connector pin assignments, see page 61.

For further technical data, see:

www.phoenixcontact.net/catalog



M12 pin, straight



M12 socket, straight



M12 pin, angled



M12 socket, angled

Description	No. of pos.	Encoding	Cable passage [mm]	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
Standard	4	A - standard	4.00 - 8.00	1432729	1	1432745	1	1432732	1	1432758	1
Standard	5	A - standard	4.00 - 8.00	1432648	1	1432664	1	1432651	1	1432677	1
Standard	5	B - inverse	4.00 - 8.00	1432680	1	1432703	1	1432693	1	1432716	1
PROFINET	4	D - data	4.00 - 8.00	1436738	1	1436741	1	1436754	1	1436767	1
CANopen, DeviceNet™	5	A - standard	4.00 - 8.00	1432761	1	1432787	1	1432774	1	1432790	1
Profibus	2	B - inverse	4.00 - 8.00	1432842	1	1432868	1	1432855	1	1432871	1
Interbus	5	B - inverse	4.00 - 8.00	1432800	1	1432826	1	1432813	1	1432839	1

Technical data

Electrical data

Rated voltage

Nominal current I_N

Volume resistance

Insulation resistance

Surge voltage category

Mechanical data

Contact carrier material

Material contact / contact surface

Inflammability class acc. to UL 94

Pollution degree

Degree of protection

Connection data

External diameter

Connection cross-section min/max

Connection cross-section AWG min/max

Temperature data

Ambient temperature (operation)

4-pos.

5-pos.

60 V

4 A

8 mΩ

100 MΩ

II

PA 66

CuSn / Ni/Au

V0

3

IP67

4 mm ... 8 mm

0.14 mm² / 0.5 mm²

26 / 20

-40°C ... 85°C

60 V

4 A

8 mΩ

100 MΩ

II

PA 66

CuSn / Ni/Au

V0

3

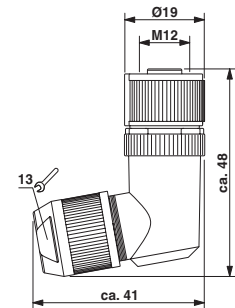
IP67

4 mm ... 8 mm

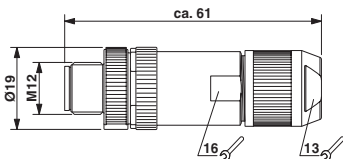
0.14 mm² / 0.5 mm²

26 / 20

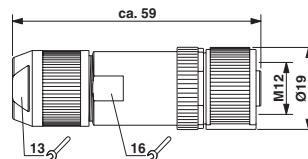
-40°C ... 85°C



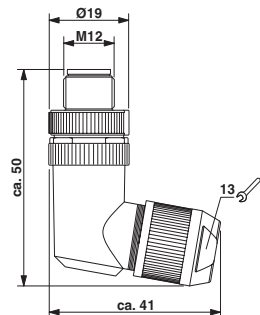
M12 pin, angled, shielded



M12 pin, straight, shielded



M12 socket, straight, shielded



M12 socket, angled, shielded

**M12, shielded,
screw connection**

Notes:

For connector pin assignments, see page 61.

For further technical data, see:

www.phoenixcontact.net/catalog



M12 pin,
straight



M12 socket,
straight



M12 pin,
angled

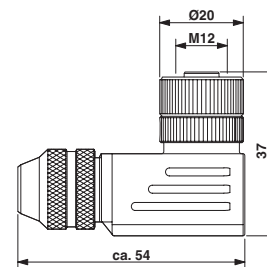


M12 socket,
angled

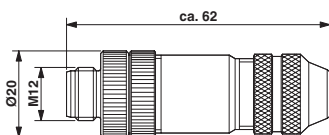
Description	No. of pos.	Encoding	Cable passage [mm]	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
Standard	4	A - standard	4.00 - 6.00	1693830	1	1694295	1	1694279	1	-	-
Standard	4	A - standard	6.00 - 8.00	1501540	1	1515170	1	-	-	-	-
Standard	5	A - standard	4.00 - 6.00	1693416	1	1694305	1	1693429	1	-	-
Standard	5	A - standard	6.00 - 8.00	1694266	1	1694318	1	1694282	1	1430433	1
Standard	5	B - inverse	6.00 - 8.00	-	-	-	-	1430417	1	1430420	1
Standard	8	A - standard	6.00 - 8.00	1511857	1	1511860	1	-	-	-	-
Ethernet	4	D - data	4.00 - 6.00	1521258	1	-	-	-	-	-	-
Ethernet	4	D - data	6.00 - 8.00	1521261	1	-	-	-	-	-	-
CANopen, DeviceNet™	5	A - standard	6.00 - 8.50	1508352	1	1508365	1	-	-	-	-
PROFIBUS, INTERBUS	5	B - inverse	6.00 - 8.50	1507764	1	1507777	1	-	-	-	-

Technical data

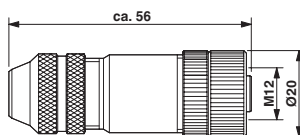
	4-pos.	5-pos.	8-pos.
Electrical data			
Rated voltage	60 V	60 V	30 V
Nominal current I _N	4 A	4 A	2 A
Volume resistance	3 mΩ	3 mΩ	3 mΩ
Insulation resistance	100 MΩ	100 MΩ	100 MΩ
Surge voltage category	II	II	II
Mechanical data			
Material contact / contact surface	CuZn / Au	CuZn / Au	CuZn / Au
Contact carrier material	PA 66	PA 66	PA 66
Inflammability class acc. to UL 94	V0	V0	V0
Pollution degree	3	3	3
Degree of protection	IP67	IP67	IP67
Connection data			
Connection cross-section min/max	0.25 mm ² / 0.75 mm ²	0.25 mm ² / 0.75 mm ²	0.25 mm ² / 0.75 mm ²
Connection cross-section AWG min/max	24 / 18	24 / 18	24 / 18
Temperature data			
Ambient temperature (operation)	-40°C ... 85°C	-40°C ... 85°C	-40°C ... 85°C



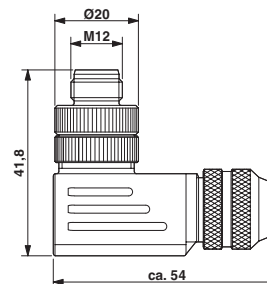
M12 socket, angled, shielded



M12 pin, straight, shielded



M12 socket, straight, shielded



M12 pin, angled, shielded

Circular connectors – PLUSCON circular

Sensor/actuator connectors for assembly

M12, shielded, IDC fast connection technology

Notes:

For connector pin assignments, see page 61.

For further technical data, see:

www.phoenixcontact.net/catalog

For description of connection method, see page 186.



M12 pin, straight



M12 socket, straight



M12 pin, angled



M12 socket, angled

Description	No. of pos.	Encoding	Cable passage [mm]	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
Ethernet	4	D - data	4.00 - 8.00	1543223	1	1553611	1	1553624	1	1553637	1
Profinet	4	D - data	4.00 - 8.00	1554513	1	1554526	1	1554539	1	1554542	1
Varan	6	A - standard	4.00 - 8.00	1429130	1	1429143	1	1429156	1	1429169	1
Ethernet	8	A - standard	4.00 - 8.00	1543236	1	1553640	1	1553653	1	1553666	1

Technical data

Electrical data

Rated voltage

Nominal current I_N

Volume resistance

Insulation resistance

Surge voltage category

Mechanical data

Material contact / contact surface

Contact carrier material

Inflammability class acc. to UL 94

Pollution degree

Degree of protection

Connection data

External diameter

Connection cross-section min/max

Connection cross-section AWG min/max

Temperature data

Ambient temperature (operation)

4-pos.

60 V

1.75 A

5 mΩ

100 MΩ

II

CuSn / Ni/Au

PA 66

V0

3

IP67

4 mm ... 8 mm

0.14 mm² / 0.34 mm²

26 / 22

-40°C ... 85°C

6-pos.

30 V

2 A

5 mΩ

100 MΩ

II

CuSn / Ni/Au

PA 66

V0

3

IP67

4 mm ... 8 mm

0.14 mm² / 0.34 mm²

26 / 22

-40°C ... 85°C

8-pos.

30 V

1.75 A

5 mΩ

100 MΩ

II

CuSn / Ni/Au

PA 66

V0

3

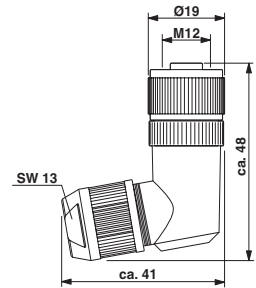
IP67

4 mm ... 8 mm

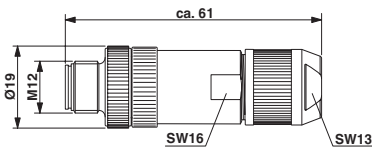
0.14 mm² / 0.34 mm²

26 / 22

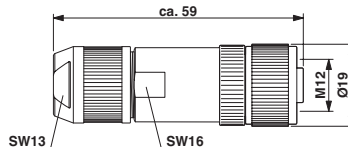
-40°C ... 85°C



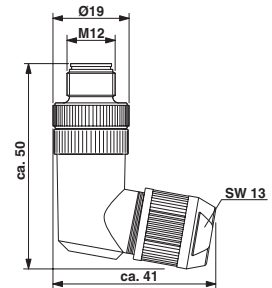
M12 socket, angled, shielded



M12 pin, straight, shielded



M12 socket, straight, shielded



M12 pin, angled, shielded

Mini 7/8", unshielded, screw connection

Notes:

For connector pin assignments, see page 62.

For further technical data, see:

www.phoenixcontact.net/catalog



7/8" pin,
straight



7/8" socket,
straight



7/8" pin,
angled

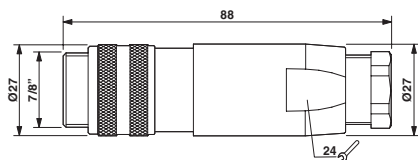


7/8" socket,
angled

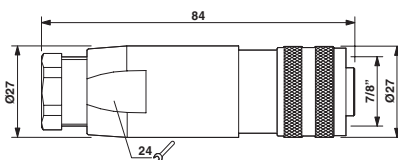
Description	No. of pos.	Cable passage [mm]	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.	Order No.	Pcs. / Pkt.
Metal knurl	3	6.00 - 8.00	1521287	1	1521300	1	1521465	1	1521478	1
Metal knurl	3	10.00 - 12.00	1521290	1	1521313	1	-	-	-	-
Metal knurl	4	6.00 - 8.00	1521326	1	1521342	1	1521481	1	1521494	1
Metal knurl	4	10.00 - 12.00	1521339	1	1521355	1	-	-	-	-
Metal knurl	5	6.00 - 8.00	1521668	1	1521384	1	1521504	1	1521517	1
Metal knurl	5	10.00 - 12.00	1521371	1	1521397	1	-	-	-	-
Metal knurl	5	12.00 - 14.00	1559039	1	1559071	1	-	-	-	-

Technical data

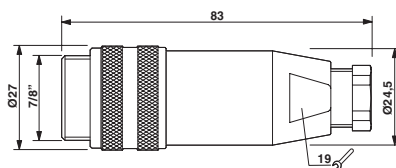
	3-pos.	4-pos.	5-pos.
Electrical data			
Rated voltage	250 V	250 V	250 V
Nominal current I _N	12 A	9 A	9 A
Volume resistance	5 mΩ	5 mΩ	5 mΩ
Insulation resistance	100 MΩ	100 MΩ	100 MΩ
Surge voltage category	II	II	II
Mechanical data			
Material contact / contact surface	CuZn / Au	CuZn / Au	CuZn / Au
Contact carrier material	PUR / PA66	PUR / PA66	PUR / PA66
Inflammability class acc. to UL 94	HB	HB	HB
Pollution degree	3	3	3
Degree of protection	IP67	IP67	IP67
Connection data			
Connection cross-section min/max	0.34 mm ² / 1.5 mm ²	0.34 mm ² / 1.5 mm ²	0.34 mm ² / 1.5 mm ²
Connection cross-section AWG min/max	22 / 16	22 / 16	22 / 16
Temperature data			
Ambient temperature (operation)	-40°C ... 85°C	-40°C ... 85°C	-40°C ... 85°C



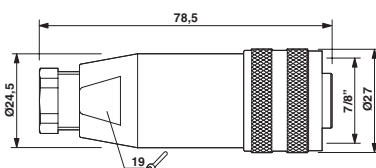
7/8" pin, straight,
Pg13



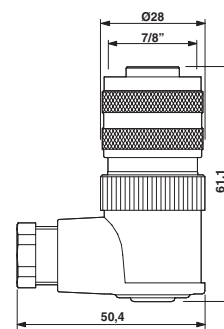
7/8" socket, straight,
Pg13



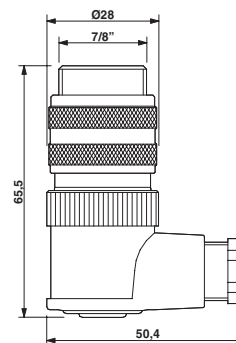
7/8" pin, straight,
Pg9



7/8" socket, straight,
Pg9



7/8" socket, angled,
Pg9



7/8" pin, angled,
Pg9

Circular connectors – PLUSCON circular

Signal and power connectors

M23 signal/feedback connectors, RF series

The 12 and 17-pos. basic range of RF connectors has been adapted to feedback (signal) applications.

The cable clamping range for cables and coupler connectors is generously dimensioned with a maximum cable diameter (shielded) of 13.2 mm. Shield and cable clamping have been consistently developed for quick and easy assembly.

Detailed assembly instructions can be found at:
www.phoenixcontact.net/download



RF-...S...N8A...DU

Socket assembly



RF-...P...N8A...DU

Pin assembly

Description	No. of pos.	Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.
Feedback cable connector, straight, cable Ø 3 - 13.2 mm							
Standard direction of rotation, 12-pos.		RF-12S1N8A80DU	1607276	20	RF-12P1N8A80DU	1607228	20
Standard direction of rotation, 17-pos.		RF-17S1N8A80DU	1607340	20	RF-17P1N8A80DU	1607323	20
Opposite direction of rotation, 12-pos.		RF-12S2N8A80DU	1607297	20	RF-12P2N8A80DU	1607252	20
Opposite direction of rotation, 17-pos.		RF-17S2N8A80DU	1607349	20	RF-17P2N8A80DU	1607331	20
Feedback coupler connector, straight, cable Ø 3 - 13.2 mm							
Standard direction of rotation, 12-pos.		RF-12S1N8A90DU	1607278	20	RF-12P1N8A90DU	1607231	20
Standard direction of rotation, 17-pos.		RF-17S1N8A90DU	1607343	20	RF-17P1N8A90DU	1607326	20
Opposite direction of rotation, 12-pos.		RF-12S2N8A90DU	1607302	20	RF-12P2N8A90DU	1607255	20
Opposite direction of rotation, 17-pos.		RF-17S2N8A90DU	1607352	20	RF-17P2N8A90DU	1607334	20
Signal contacts, punched-rolled (C-HC), taped, 2500 pieces per roll, Ø 1 mm							
Connection cross-section: 0.08 - 0.2 mm ²		SF-10KS320	1607031	1			
Connection cross-section: 0.2 - 0.56 mm ²		SF-10KS350	1607032	1			
Angled signal contacts, single processing, Ø 1 mm							
Connection cross-section: 0.14 - 0.5 mm ²		SF-10KS004	1607356	100	SF-10KP004	1607355	100
Connection cross-section: 0.5 - 1 mm ²		SF-6AS2000	1605557	100	SF-6AP2000	1605554	100
Wire spring contact, cross-section: 0.14 - 1 mm ²		SF-10KS010	1605481	100			

Technical data

Electrical data in acc. with DIN EN 61984:2001

Rated voltage (III/3)

Rated current at 25°C

12-pos.

150 V

8 A

17-pos.

100 V

8 A

12-pos.

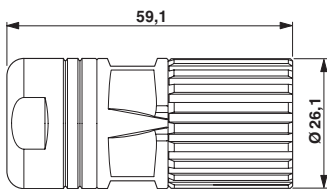
150 V

8 A

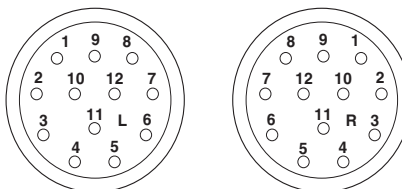
17-pos.

100 V

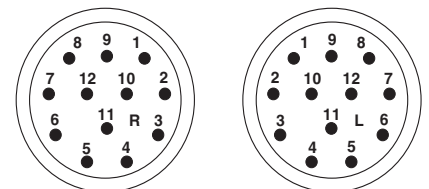
8 A



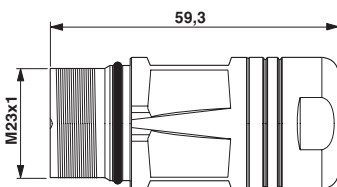
RF-12(17)...N8A80DU



Contact chamber numbering (view of plug-in side)
Standard socket – Socket counter direction



Contact chamber numbering (view of plug-in side)
Standard pin – Pin counter direction



RF-12(17)...N8A90DU

M23 appliance plug connectors, RF series

RF appliance plug connectors are available in straight and angled versions. The angled, rotatable versions cover a progressive swiveling range of up to 310°. The metallic twisting mechanism provides an EMC-effective, interruption-free connection of the angled flange with the housing.

Detailed assembly instructions can be found at:
www.phoenixcontact.net/download



RF-...S...N8AW...00

Socket assembly



RF-...P...N8A...00

Pin assembly

Description	No. of pos.	Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.
Feedback appliance plug connector, straight							
Standard direction of rotation, 12-pos.		RF-12S1N8AWA00	1607283	40	RF-12P1N8AWA00	1607236	40
Standard direction of rotation, 17-pos.		RF-17S1N8AWA00	1607892	40	RF-17P1N8AWA00	1607860	40
Opposite direction of rotation, 12-pos.		RF-12S2N8AWA00	1607307	40	RF-12P2N8AWA00	1607260	40
Opposite direction of rotation, 17-pos.		RF-17S2N8AWA00	1607901	40	RF-17P2N8AWA00	1607882	40
Feedback appliance plug connector straight, with contact carriers to snap in							
Standard direction of rotation, 12-pos.		RF-12S1N8AWB00	1607830	40	RF-12P1N8AWB00	1607804	40
Standard direction of rotation, 17-pos.		RF-17S1N8AWB00	1607893	40	RF-17P1N8AWB00	1607863	40
Opposite direction of rotation, 12-pos.		RF-12S2N8AWB00	1607844	40	RF-12P2N8AWB00	1607817	40
Opposite direction of rotation, 17-pos.		RF-17S2N8AWB00	1607902	40	RF-17P2N8AWB00	1607883	40
Feedback appliance plug connector angled, rotatable							
Standard direction of rotation, 12-pos.					RF-12P1N8AAD00	1607233	16
Standard direction of rotation, 17-pos.					RF-17P1N8AAD00	1607328	16
Opposite direction of rotation, 12-pos.					RF-12P2N8AAD00	1607257	16
Opposite direction of rotation, 17-pos.					RF-17P2N8AAD00	1607337	16
Signal contacts, punched-rolled (C-HC), taped, 2500 pieces per roll, Ø 1 mm							
Connection cross-section: 0.08 - 0.2 mm ²		SF-10KS320	1607031	1			
Connection cross-section: 0.2 - 0.56 mm ²		SF-10KS350	1607032	1			
Angled signal contacts, single processing, Ø 1 mm							
Connection cross-section: 0.14 - 0.5 mm ²		SF-10KS004	1607356	100	SF-10KP004	1607355	100
Connection cross-section: 0.5 - 1 mm ²		SF-6AS2000	1605557	100	SF-6AP2000	1605554	100
Wire spring contact, cross-section: 0.14 - 1 mm ²		SF-10KS010	1605481	100			

Technical data

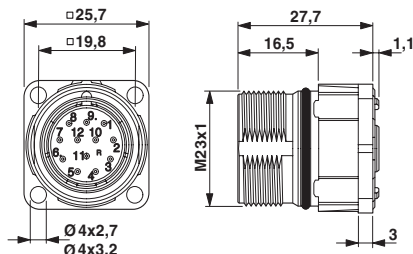
Electrical data in acc. with DIN EN 61984:2001

Rated voltage (III/3)

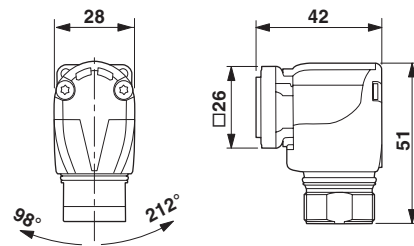
Rated current at 25°C

12-pos.	17-pos.
150 V	100 V
8 A	8 A

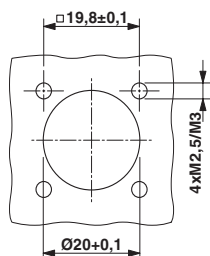
12-pos.	17-pos.
150 V	100 V
8 A	8 A



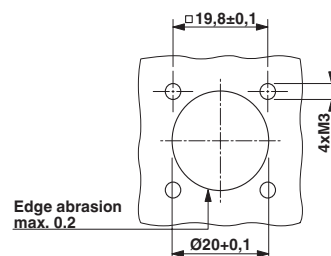
RF-...N8AWA00, RF-...N8AWB00



RF-...P...N8AAD00



Installation dimensions RF-...N8AWA00, RF-...N8AWB00



Installation dimensions RF-...P...N8AAD00

Circular connectors – PLUSCON circular

Signal and power connectors

M23 power connectors, P30 series

P30 are M23 power connectors for transmission capacities of up to 250/630 V at 9/30 A.

Crimp contacts can be ordered separately depending on the desired connection cross-section. The 6-pos. (5+PE) versions are assembled with 2 mm Ø contacts. The 8-pos. (4+3+PE) versions are equipped with four 1 mm signal contacts and four 2 mm contacts.

Detailed assembly instructions can be found at: www.phoenixcontact.net/download



SF-ES1N8A8...

Socket assembly



SF-EP1N8A90..

Pin assembly

Description	Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.
Power connector P30 , shielded, straight, short, cable Ø: 7.5 - 14 mm	6-pos. (5+PE)	SF-5ES1N8A80DU	1605532	20	SF-5EP1N8A90DU	1605499
	8-pos. (4+3+PE)	SF-7ES1N8A80DU	1605602	20	SF-7EP1N8A90DU	1605575
Signal contacts, punched-rolled (C-HC) , taped, 2500 pieces per roll, Ø 1 mm	Connection cross-section: 0.08 - 0.2 mm ²	SF-10KS320	1607031	1		
	Connection cross-section: 0.2 - 0.56 mm ²	SF-10KS350	1607032	1		
Angled signal contacts , single processing, Ø 1 mm	Connection cross-section: 0.14 - 0.5 mm ²	SF-10KS004	1607356	100	SF-10KP004	1607355
	Connection cross-section: 0.5 - 1 mm ²	SF-6AS2000	1605557	100	SF-6AP2000	1605554
	Connection cross-section: 0.5 - 1.5 mm ²	SF-6FS2000	1605566	100	SF-6DP2000	1607406
	Wire spring contact, cross-section: 0.14 - 1 mm ²	SF-10KS010	1605481	100		
Contacts (C-HC) , punched-rolled, taped, 1000 pieces per roll, Ø 2 mm	Connection cross-section: 1.0 - 2.5 mm ²	SF-20KS350	1607034	1		
Angled contacts , single processing, Ø 2 mm	Connection cross-section: 0.25 - 1 mm ²	SF-7PS2000	1605636	100	SF-7PP2000	1605634
	Connection cross-section: 0.75 - 1.5 mm ²	SF-7NS2000	1605631	100		
	Connection cross-section: 1.0 - 2.5 mm ²	SF-7QS2000	1605643	100	SF-7QP2000	1605639
	Wire spring contact, cross-section: 0.75 - 2.5 mm ²	SF-20KS010	1605491	100		

Technical data

Electrical data in acc. with DIN EN 61984:2001

Rated voltage (III/3)

Rated current at 25°C

Signal contact

250 V

9 A

Power contact

630 V

30 A

Signal contact

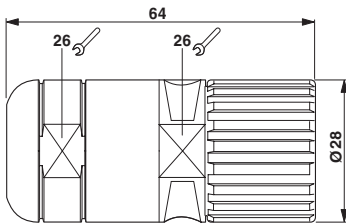
250 V

9 A

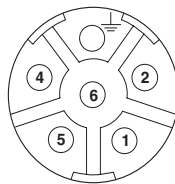
Power contact

630 V

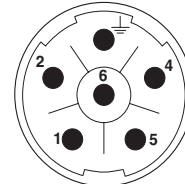
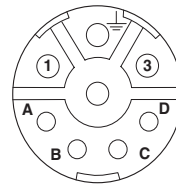
30 A



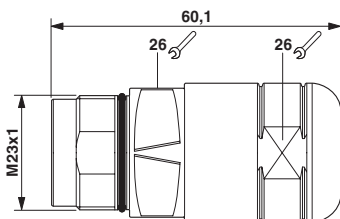
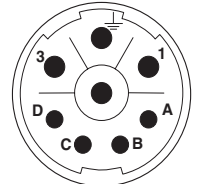
SF-...S1N8A80DU



Connector pin assignment 6 / 8-pos. socket assembly



Connector pin assignment 6 / 8-pos. pin assembly



SF-...P1N8A90DU

**M23 appliance plug connectors,
P30 series**

The range offers various application-specific housing designs:

- Straight housing, even in flat design for space-saving installation
- Angled housing, rotatable

Detailed assembly instructions can be found at:
www.phoenixcontact.net/download



SF-...N8AW...00



SF-...N8AAD00

Description	Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.
Power appliance plug connector P30, low design, straight, external	6-pos. (5+PE)	SF-5EP1N8AWK00	1607043	20		
	8-pos. (4+3+PE)	SF-7EP1N8AWK00	1605591	20		
Power appliance plug connector P30, straight, external	6-pos. (5+PE)	SF-5EP1N8AWA00	1605520	20		
	8-pos. (4+3+PE)	SF-7EP1N8AWA00	1605589	20		
Power appliance plug connector P30, angled, rotatable, external	6-pos. (5+PE)				SF-5EP1N8AAD00	1605512
	8-pos. (4+3+PE)				SF-7EP1N8AAD00	1605586
Angled signal contacts, single processing, Ø 1 mm	Connection cross-section: 0.14 - 0.5 mm ²	SF-10KP004	1607355	100	SF-10KP004	1607355
	Connection cross-section: 0.5 - 1 mm ²	SF-6AP2000	1605554	100	SF-6AP2000	1605554
	Connection cross-section: 0.5 - 1.5 mm ²	SF-6DP2000	1607406	100	SF-6DP2000	1607406
Angled contacts, single processing, Ø 2 mm	Connection cross-section: 0.25 - 1 mm ²	SF-7PP2000	1605634	100	SF-7PP2000	1605634
	Connection cross-section: 1.0 - 2.5 mm ²	SF-7QP2000	1605639	100	SF-7QP2000	1605639

Technical data

Electrical data in acc. with DIN EN 61984:2001

Rated voltage (III/3)

Rated current at 25°C

Signal contact

250 V

9 A

Power contact

630 V

30 A

Signal contact

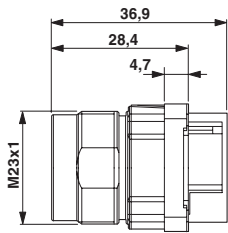
250 V

9 A

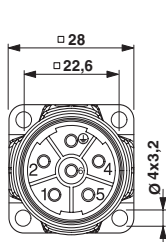
Power contact

630 V

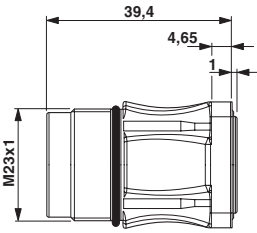
30 A



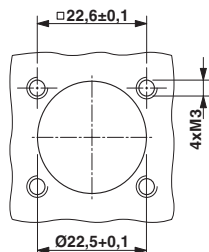
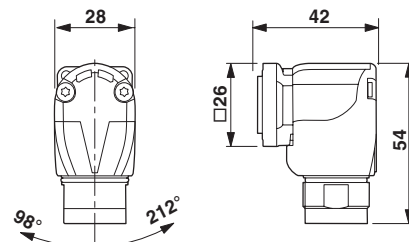
SF-...P1N8AWK00



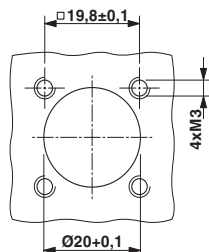
SF-...P1N8AWA00



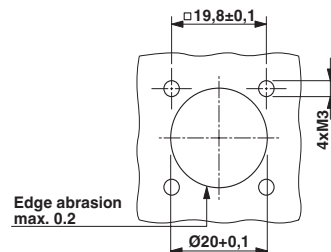
SF-...P1N8AAD00



Installation dimensions SF-...P1N8AWK00



Installation dimensions SF-...P1N8AWA00



Installation dimensions: SF-EP1N8AAD00

Circular connectors – PLUSCON circular

Signal and power connectors

M40 power connectors, P70 series

P70 are M40 power connectors for higher transmission capacities and connection cross-sections. Electric capacities of up to 630 V and 70 A per contact feed-through can be transmitted for connection cross-sections of up to 10/16 mm².

Detailed assembly instructions can be found at: www.phoenixcontact.net/download



SM-...N8A8003

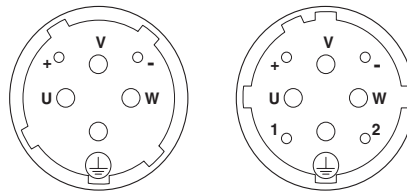
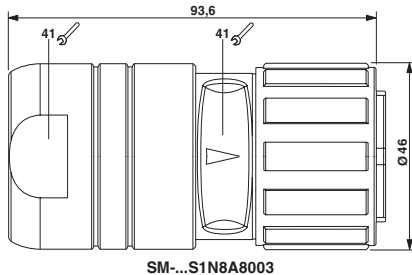
Socket assembly



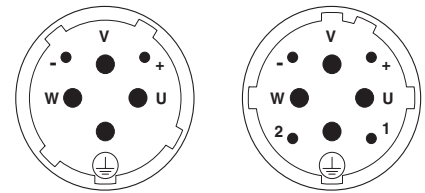
SM-...N8A9003

Pin assembly

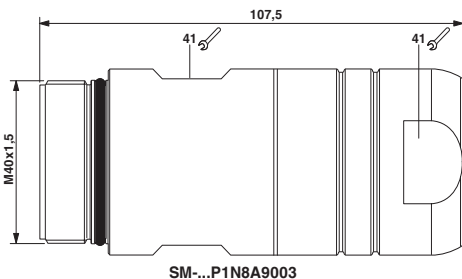
Description	Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.
Power connector P70 , shielded, straight, short, cable Ø: 12.5 - 17 mm	6-pos. (2+3+PE)	SM-5ES1N8A8003	12	SM-5EP1N8A9003	1605771	12
	8-pos. (4+3+PE)	SM-7ES1N8A8003	12	SM-7EP1N8A9003	1605826	12
Angled contacts , single processing, Ø 2 mm	Connection cross-section: 0.25 - 1 mm ² Connection cross-section: 1.0 - 2.5 mm ²	SF-7PS2000	100	SM-20KP006	1605738	50
		SF-7QS2000	100	SM-20KP007	1605739	50
Angled contacts , single processing, Ø 3.6 mm	Connection cross-section: 2.5 - 4.0 mm ² Connection cross-section: 4.0 - 6.0 mm ²	SM-36KS002	50	SM-36KP006	1605750	50
		SM-36KS003	50	SM-36KP008	1605754	50
Technical data						
Electrical data in acc. with DIN EN 61984:2001	Signal contact	Power contact		Signal contact	Power contact	
Rated voltage (III/3)	250 V	630 V		250 V	630 V	
Rated current at 25°C	30 A	70 A		30 A	70 A	



Connector pin assignment 6 / 8-pos. socket assembly



Connector pin assignment 6 / 8-pos. pin assembly



**M40 appliance plug connectors,
P70 series**

P70 appliance plug connector series contains straight versions as well as the rotatable angular housings. No special tools are required for assembly.

Detailed assembly instructions can be found at:
www.phoenixcontact.net/download



SM-...N8AWT0



SM-...N8AAD00S

Description	Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.
Power appliance plug connector P70, straight						
6-pos. (2+3+PE)	SM-5EPWN8AWT00	1613517	12			
8-pos. (4+3+PE)	SM-7EPWN8AWT00	1613527	12			
Power appliance plug connector P70, angled, rotatable						
6-pos. (2+3+PE)				SM-5EPWN8AAD00S	1607927	6
8-pos. (4+3+PE)				SM-7EPWN8AAD00S	1607931	6
Angled contacts, single processing, Ø 2 mm						
Connection cross-section: 0.25 - 1 mm ²	SF-7PP2000	1605634	100	SF-7PP2000	1605634	100
Connection cross-section: 1.0 - 2.5 mm ²	SF-7QP2000	1605639	100	SF-7QP2000	1605639	100
Angled contacts, single processing, Ø 3.6 mm						
Connection cross-section: 1.0 - 2.5 mm ²	SM-36KP009	1607057	50	SM-36KP009	1607057	50
Connection cross-section: 1.0 - 4.0 mm ²	SM-36KP002	1605744	50	SM-36KP002	1605744	50
Connection cross-section: 4.0 - 6.0 mm ²	SM-36KP003	1605745	50	SM-36KP003	1605745	50

Technical data

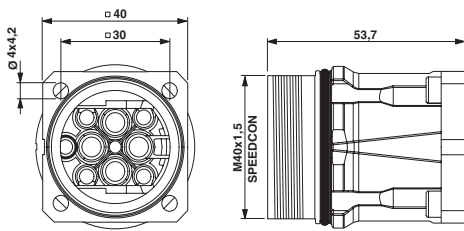
Electrical data in acc. with DIN EN 61984:2001

Rated voltage (III/3)

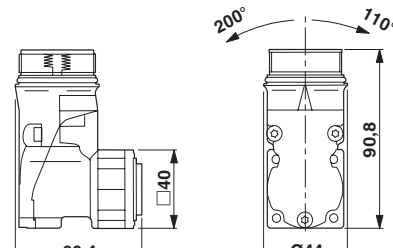
Rated current at 25°C

Signal contact	Power contact
250 V	630 V
30 A	70 A

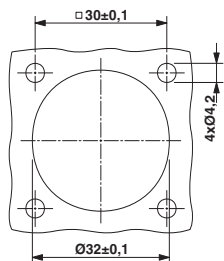
Signal contact	Power contact
250 V	630 V
30 A	70 A



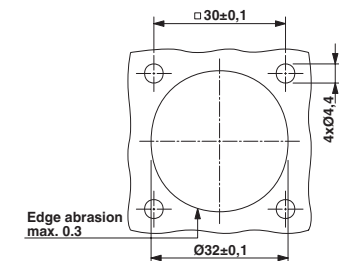
SM-...PWN8AWT0



SM-...PWN8AAD00S



Installation dimensions for SM-...PWN8AWT0



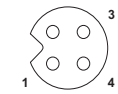
Installation dimensions for SM-...PWN8AAD00S

Circular connectors – PLUSCON circular

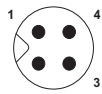
Pin assignments

M5 flush-type connectors

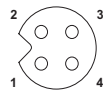
Pin assignments



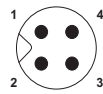
Socket, 3-pos.



Pin, 3-pos.



Socket, 4-pos.



Pin, 4-pos.

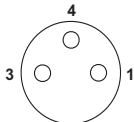
Litz wire colors

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

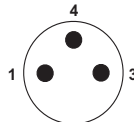
Assignment: M5 flush-type connectors/sockets

M8 flush-type connectors

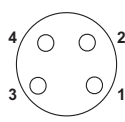
Pin assignments



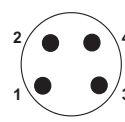
Socket, 3-pos.



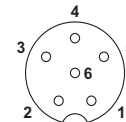
Pin, 3-pos.



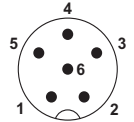
Socket, 4-pos.



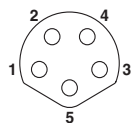
Pin, 4-pos.



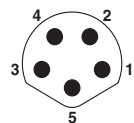
Socket, 6-pos.



Pin, 6-pos.



Socket, 5-pos.,
DeviceNet™, B-coded



Pin, 5-pos.,
DeviceNet™, B-coded

Litz wire colors

Pin	Conductor color					
	3-pos.		4-pos.		6-pos.	
1	BN		BN		BN	
2	-		WH		WH	
3	BU		BU		BU	
4	BK		BK		BK	
5	-		-		GY	
6	-		-		PK	

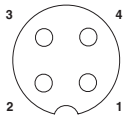
Assignment: M8 flush-type connectors/sockets

Pin	Conductor color	Signal DeviceNet
1	Shield	Drain
2	RD	V+
3	BK	V-
4	WH	CAN_H
5	BU	CAN_L

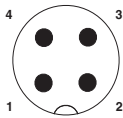
Assignment: CANopen/DeviceNet

M12 flush-type connectors

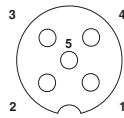
Pin assignments



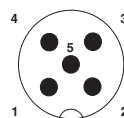
Socket, 4-pos.
A-coded



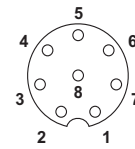
Pin, 4-pos.
A-coded



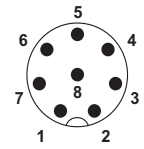
Socket, 5-pos.
A-coded



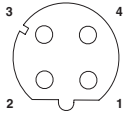
Pin, 5-pos.
A-coded



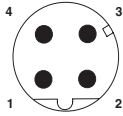
Socket, 8-pos.



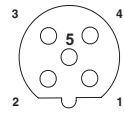
Pin, 8-pos.



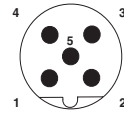
Socket, 4-pos.
D-coded



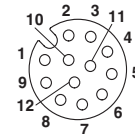
Pin, 4-pos.
D-coded



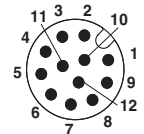
Socket, 5-pos.
B-coded



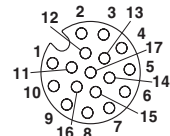
Pin, 5-pos.
B-coded



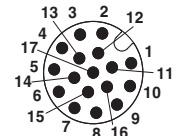
Socket, 12-pos.



Pin, 12-pos.



Socket, 17-pos.



Pin, 17-pos.

Litz wire colors

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

Assignment: M12 flush-type connectors/sockets

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

Assignment: M12 flush-type connectors/sockets

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

Assignment: M12 flush-type connectors/sockets

Pin	Conductor color	Signal PROFIBUS
1	-	-
2	GN	A line
3	-	-
4	RD	B line
5	Filler litz wire	-

Shield on housing

Assignment: PROFIBUS

Pin	Conductor color	Signal CANopen
1	Shield	-
2	RD	-
3	BK	CAN_GND
4	WH	CAN_H
5	BU	CAN_L

Shield on housing

Assignment: CANopen

Pin	Conductor color	Signal DeviceNet
1	Shield	Drain
2	RD	V+
3	BK	V-
4	WH	CAN_H
5	BU	CAN_L

Shield on housing

Assignment: DeviceNet

Pin	Conductor color	Signal ETHERNET
1	WHOG	TD+
2	WHGN	RD+
3	OG	TD-
4	GN	RD-

Shield on housing

Assignment: ETHERNET

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

Assignment: M12 flush-type connectors/sockets

Pin	Conductor color	Signal INTERBUS
1	YE	DO
2	GN	DI
3	GY	DI
4	PK	DI
5	BN	COM
-	WH	NC

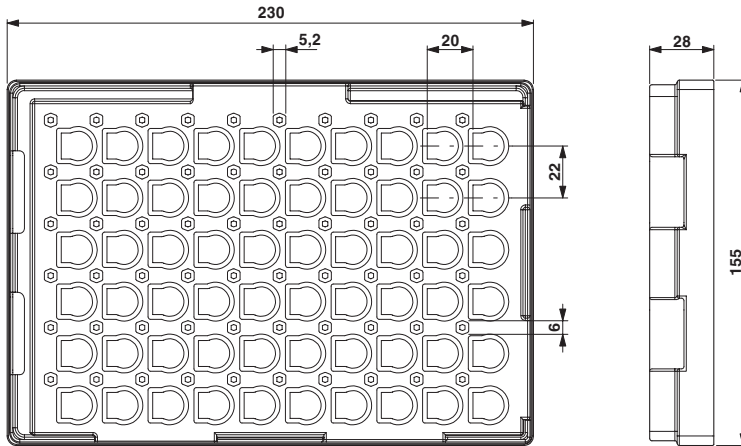
Shield on housing

Assignment: INTERBUS

Circular connectors – PLUSCON circular

Pin assignments

THR tray packaging



THR processing instructions

Information for THR processing

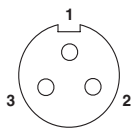
PCB thickness	Maximum 1.6 mm
Residual ring	Recommended 0.5 mm
Overprinting on SMD stencils	Residual ring diameter - 0.1 mm
Thickness of SMD stencil	150 ... 120 mm
Solder profile	DIN EN 60068-2-58

Miscellaneous information

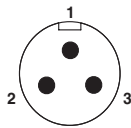
RoHs conformity	Exists
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7/8" flush-type connectors

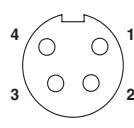
Pin assignments



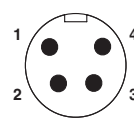
Socket, 3-pos.



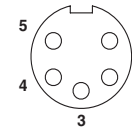
Pin, 3-pos.



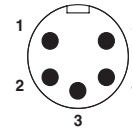
Socket, 4-pos.



Pin, 4-pos.



Socket, 5-pos.



Pin, 5-pos.

Litz wire colors

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

Assignment: 7/8" flush-type connectors/sockets

