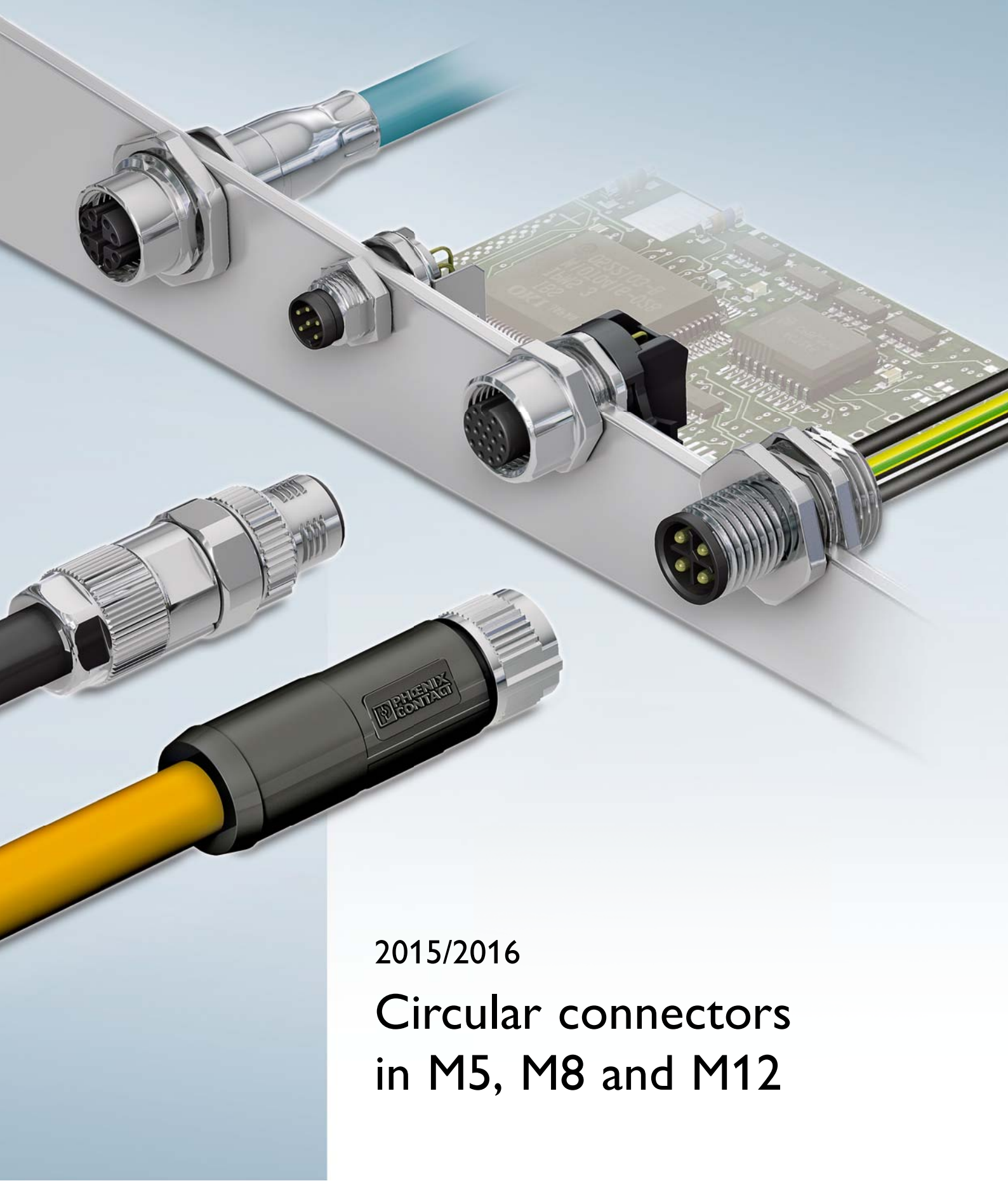


2015/2016

Circular connectors in M5, M8 and M12

PHOENIX CONTACT
INSPIRING INNOVATIONS

Circular connectors for demanding applications

The PLUSCON circular M5-M12 product program from Phoenix Contact consists of standardized circular connectors that have been developed to the industry standard in industrial automation, from infrastructure and rail technology to outdoor applications.

The wide selection of designs enables comprehensive connection solutions for devices with data rates up to 10 Gbps, for connecting signals up to 17 pos. and for power supplies up to 630 V and 16 A in the smallest installation space.

Signals up to 17 pos.

- Currents up to 4 A
- Voltages up to 250 V
- Available with an optional shield connection

Find out more with the web code

You can find our web code in any product table: a pound sign followed by a four-digit number combination (example: #1234).
This allows you to reach information on our website quickly.

It couldn't be simpler:

1. Go to the Phoenix Contact website
2. Enter # and the number combination in the search field
3. Receive more information and product versions

#1234 **Search**

Or use the direct link:
phoenixcontact.net/webcode/#1234

Data up to 10 Gbps

- Codings for all commonly used fieldbus systems
- Hybrid connectors for simultaneous data and PoE power transmission (Power over Ethernet)
- Components according to $CAT6_A$

Power up to 16 A/630 V

- Connection cross section up to 2.5 mm²
- For 1-phase and 3-phase line voltage applications
- No risk of mismatching for AC and DC applications

Contents

Overview – M5, M8 and M12 connectors
Pages 04 – 09

Device connectors for front and rear mounting

Signal connectors
Pages 10 – 26

Data connectors
Pages 27 – 35

Power connectors
Page 36 – 37

Connectors for assembly

Signal connectors
Pages 38 – 40

Data connectors, power connectors
Page 41

Assembled cables

Signal lines
Page 42

Data lines
Page 43

Pin assignments and litz wire colors
Pages 44 – 47

Unique variety for signals, data and power

The rapid enhancement of industrial electronics is constantly placing fresh demands on device connection technology.

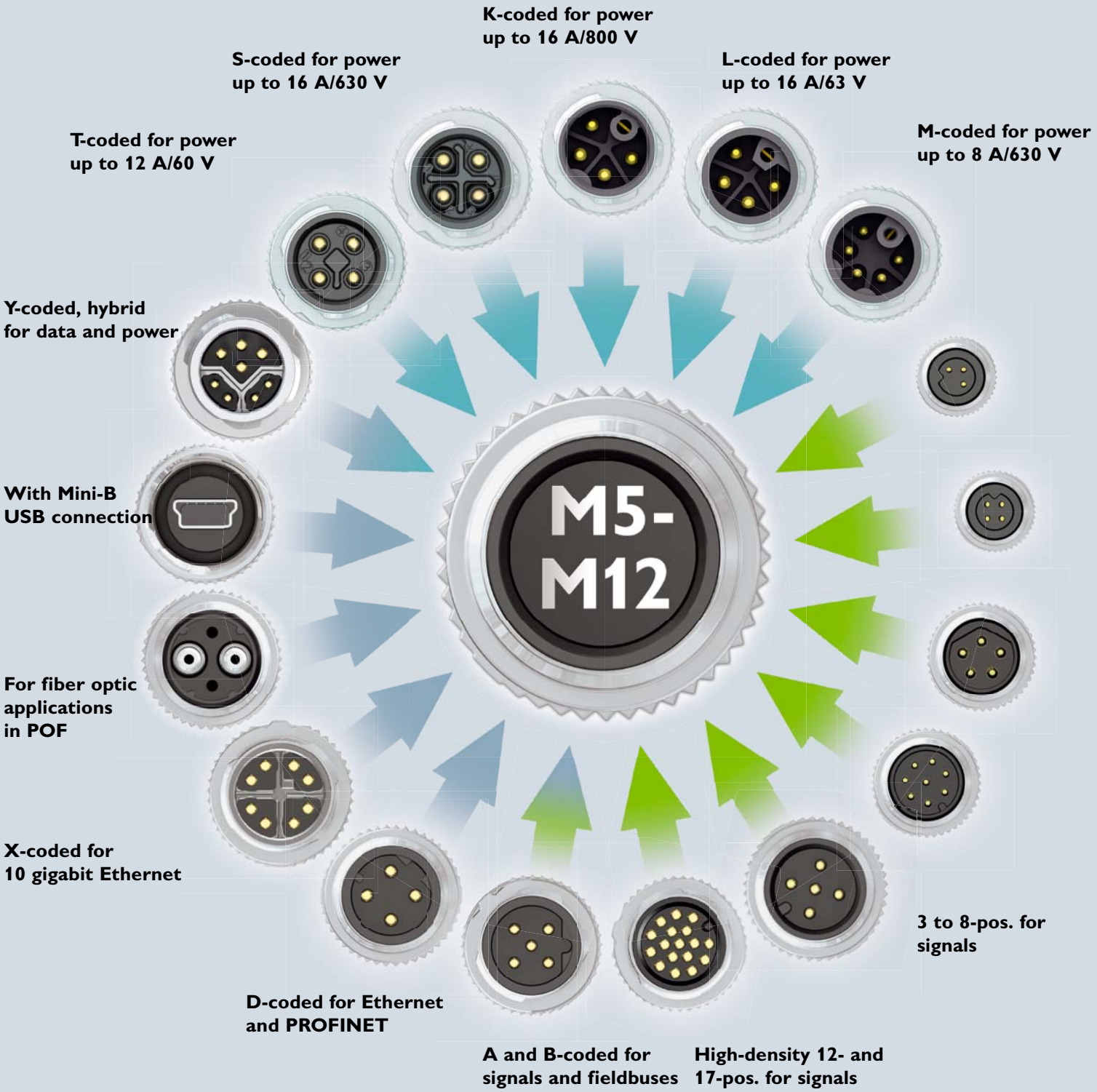
Phoenix Contact is your innovative partner for practice-oriented integration of device connectors in almost all applications.

The modular structure of device connectors facilitates the simple and cost-effective integration of various data, signal, and power supply pin assignments into a device concept.

For high contact density

For fast data transmission

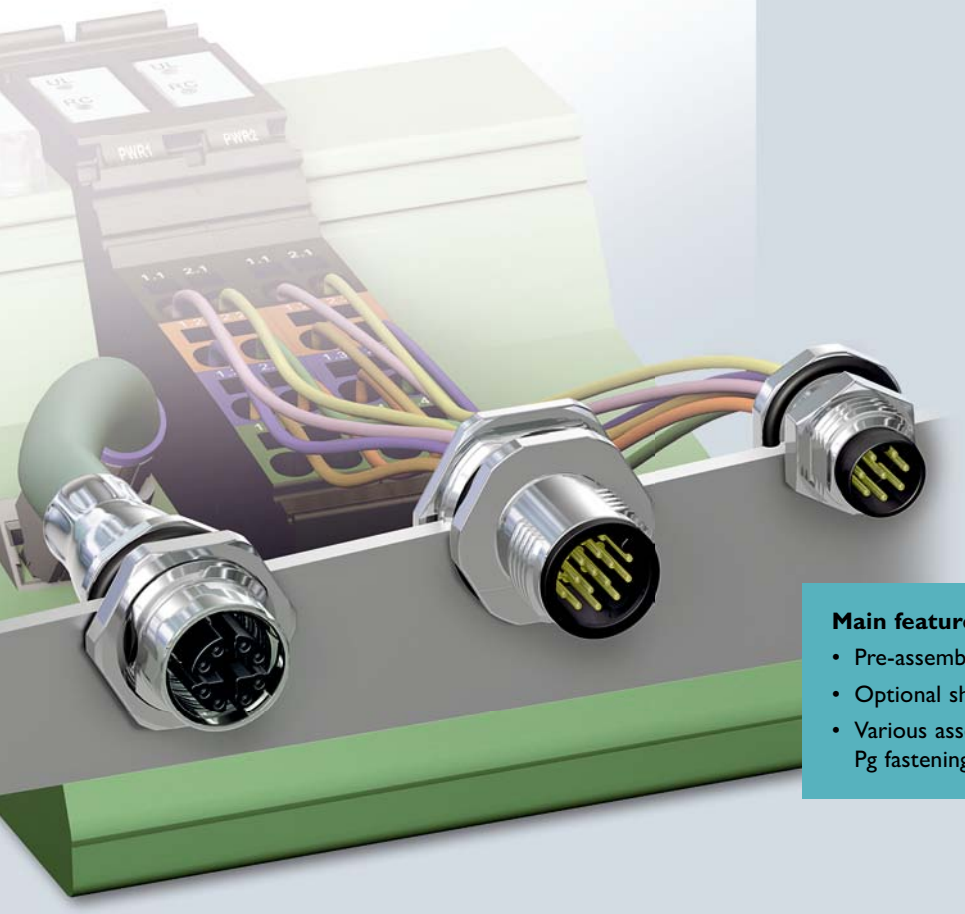
For high performance


K-coded for power
up to 16 A/800 V
S-coded for power
up to 16 A/630 V
L-coded for power
up to 16 A/63 V
T-coded for power
up to 12 A/60 V
M-coded for power
up to 8 A/630 V
Y-coded, hybrid
for data and power
M5-
M12
With Mini-B
USB connection
For fiber optic
applications
in POF
X-coded for
10 gigabit Ethernet
3 to 8-pos. for
signals
D-coded for Ethernet
and PROFINET
A and B-coded for
signals and fieldbuses
High-density 12- and
17-pos. for signals

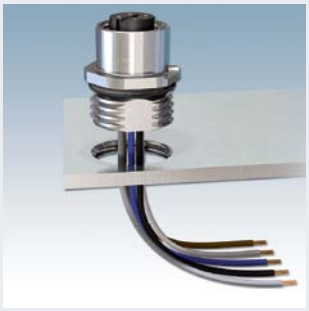
Device connectors with litz wires and cable connection

Device connectors with litz wires or size M5, M8, and M12 round cables are available as an alternative to a fixed cable connection. Thanks to its wide range of housing designs, Phoenix Contact can offer an appropriate solution for every individual application.

Web code: #0204



Variety of mounting options



Front mounting

Rear mounting

Modular mounting

Main features

- Pre-assembled with litz wires or cables
- Optional shield connection
- Various assembly methods with metric or Pg fastening threads

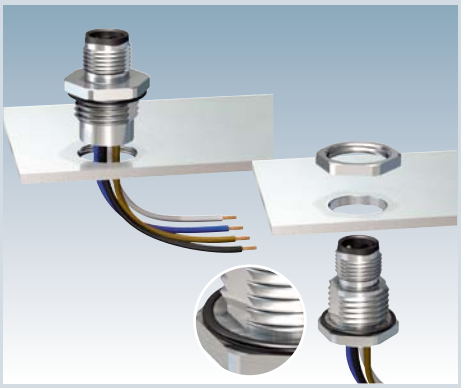
Advantages at a glance

Pre-assembled cables

- No field assembly necessary
- Various cable lengths and assemblies

Easy positioning

- Defined cable outlet direction



Safe mounting

- XL housing versions simplify the device cut-out
- Increased safety and tightness thanks to tightening limitation

Reliable seals

- IP67 when unplugged
- Device electronics protection

Reliable transmission

- 360° shield connection
- Fieldbus-specific cables

Fieldbus-specific coding

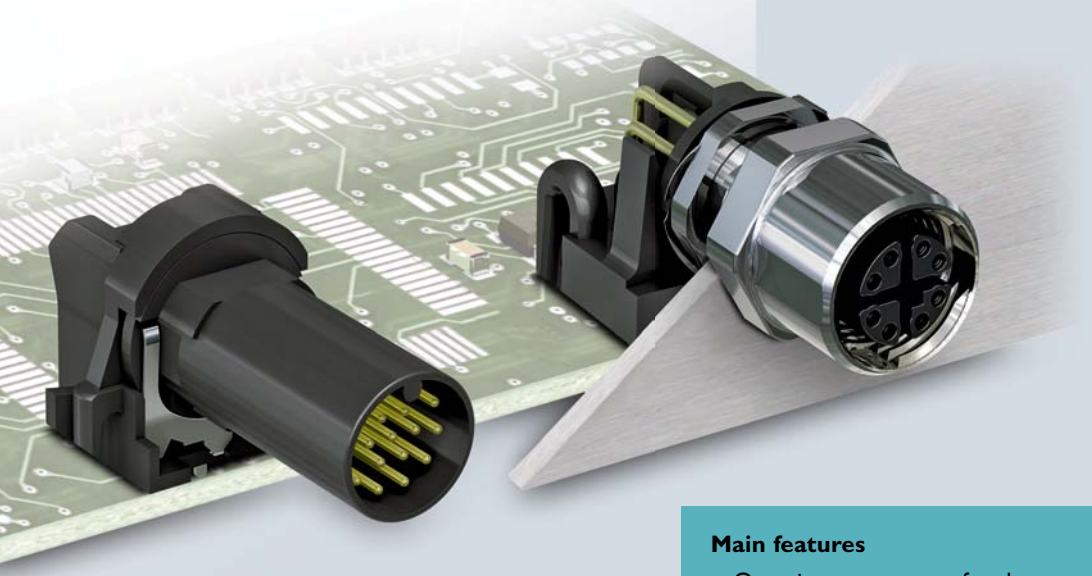
- No risk of mismatching, thanks to colored and mechanical fieldbus-specific codings

Device connectors for PCB connection

Phoenix Contact offers a wide range of one-piece and two-piece device connectors for PCB assembly in types M5, M8, and M12. This means that various connection solutions are available for wave, reflow, and SMD soldering processes.

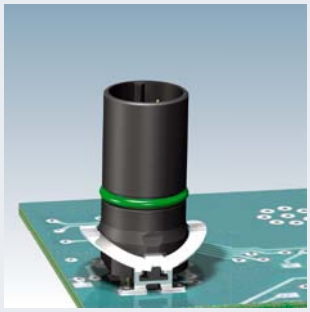
The two-piece M12 device connectors facilitate the realization of all numbers of positions and codings for signal, data, and power supply in identical mechanical installation conditions.

Web code: #0205

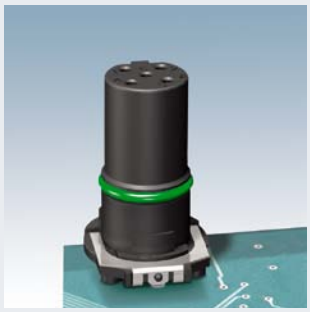


PCB connection

One-piece and two-piece, for wave soldering processes



Two-piece, for SMD processes

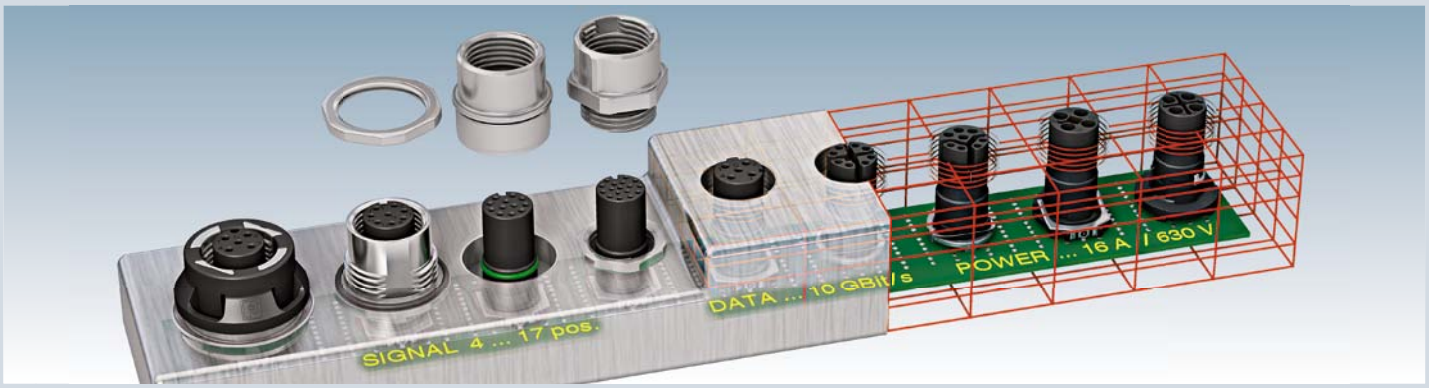


Two-piece, for reflow processes

Main features

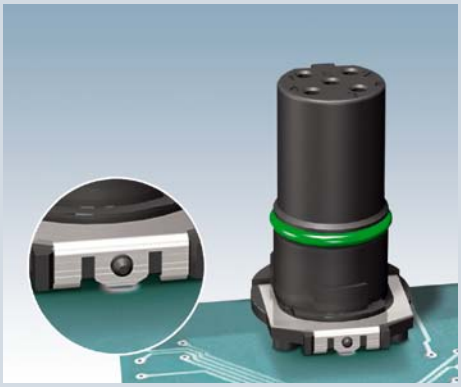
- One-piece connectors for the wave soldering process with 6 mm and 12 mm contact lengths
- Available with an optional shield connection
- Two-piece device connectors for wave, reflow, and SMD soldering processes
- Easy housing integration thanks to uniform Design-In design

Advantages at a glance



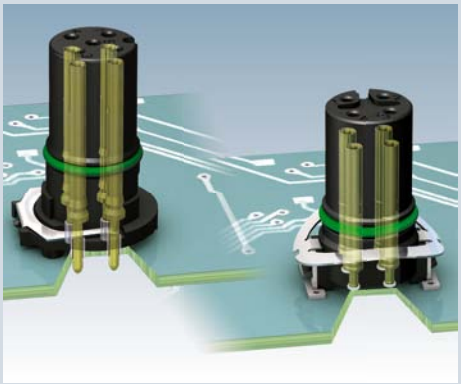
Integration in customer-specific housing

- Use of housing screw connection with thread mounting, press-in shape or for direct integration into the front plate
- Identical mechanical installation conditions for all numbers of positions and codings on one PCB level



Reliable shield connection

- Shield connection via the shield spring on the PCB



Complete THR/SMD product range

- Two-piece device connectors in all available M8/M12 numbers of positions and codings

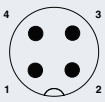
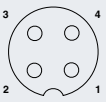
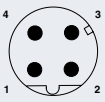
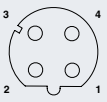
Automatic pick-and-place assembly

- Tape-on-reel or tray packaging

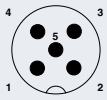
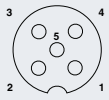
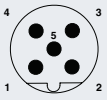
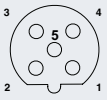
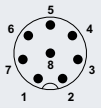
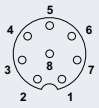
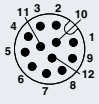
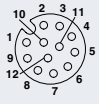
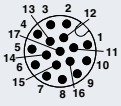
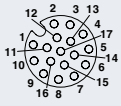
Signal – M12, with litz wires, front mounting

4-pos.

Pre-assembled with 0.5 m long litz wires

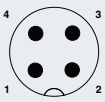
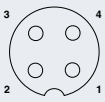
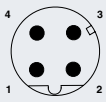
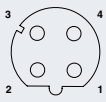
		A		D	
	Coding	A		D	
	Rated voltage	250 V		250 V	
	Nominal current	4 A		4 A	
	Conductor cross section	0.34 mm²		0.34 mm²	
Web code: #0207	**Pin assignment**	**Pin** 	**Socket** 	**Pin** 	**Socket** 
Versions with cast zinc housing for screw fixing					
	**Pg9**	1693762	1693788	–	–
	Pg9 flat nut				
	M16 x 1.5	**1523450**	**1523434**	**1551558**	**1535202**
	M16 x 1.5 flat nut				
new 	**M16 x 1.5, XL versions, wrench size 19**	1411577	1411568	1411578	1411569
	M16 x 1.5 flat nut				
	**Pg9, can be positioned**	1693775	1693791	–	–
	M16 x 1.5, can be positioned	**1523463**	**1523447**	**1552256**	**1535215**
	**20 mm square flange, mounting holes 4 x Ø 3.2 mm**	**1419784**	**1419797**	**1441626**	**1441639**
	25 mm square flange, mounting holes 4 x Ø 2.7 mm	**1419991**	**1420003**	**1440957**	**1440960**
Versions with plastic and brass (nickel-plated) housing for screw fixing					
	**Plastic M16 x 1.5**	–	–	–	–
	Brass (nickel-plated) M20 x 1.5	1408451	1408436	–	–
Versions with stainless steel housing (1.4404) for screw fixing					
	**Pg9**	1554555	1555448	–	–
	Pg9 flat nut				
	M16 x 1.5	1405233	1458855	–	–
	M16 x 1.5 flat nut				
	**Pg9, can be positioned**	1554610	1554649	–	–
	M20 x 1.5	1408415	1408416	–	–

Articles in **bold font** feature the SPEEDCON fast locking system and are fully compatible with the M12 standard interlocking system.

5-pos.				8-pos.		12-pos.		17-pos.	
A		B		A		A		A	
60 V		60 V		30 V		30 V		30 V	
4 A		4 A		2 A		1.5 A		1.5 A	
0.34 mm²		0.34 mm²		0.25 mm²		0.14 mm²		0.14 mm²	
Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
									
1671111	1671098	–	–	1513774	1513758	–	–	–	–
		1504084							
1520055	**1520039**	**1520013**	**1520000**	**1523492**	**1523476**	**1556265**	**1556252**	**1556304**	**1556294**
		1504097							
1411579	1411571	1411580	1411572	1411581	1411573	1411582	1411574	1411583	1411576
		1504097							
1671124	1671108	1515057	1515044	1513787	1513761	–	–	–	–
1520068	**1520042**	**1520026**	**1519998**	**1523502**	**1523489**	–	–	–	–
1441642	**1441655**	**1441668**	**1441671**	**1441684**	**1441697**	**1441707**	**1441710**	**1441723**	**1441736**
1440973	**1440986**	**1440999**	**1441558**	**1441561**	**1441574**	**1441587**	**1441590**	**1441600**	**1441613**
1436411	–	–	–	1436424	–	–	–	–	–
1408446	1408454	–	–	1408442	1408453	–	–	–	–
1554568	1699863	–	1452343	1554571	1554607	–	–	–	–
		1404984							
1458868	1458871	–	–	1405221	1458842	1405238	1405242	1405243	1405244
		1404983							
1554623	1554652	–	1424023	1554636	1554665	–	–	–	–
1452068	1452071	1452084	1452097	1452107	1452110	–	–	–	–

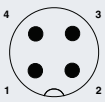
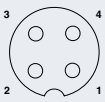
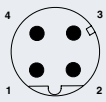
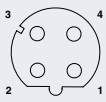
Signal – M12, crimp connection, front mounting

modular

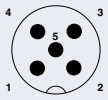
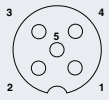
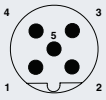
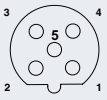
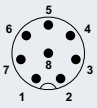
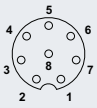
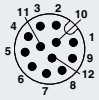
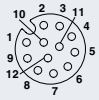
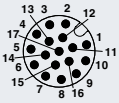
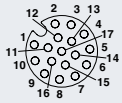
		4-pos.			
	Coding	A		D	
	Rated voltage	250 V		250 V	
	Nominal current	4 A		4 A	
	Conductor cross section	0.34 mm²		0.34 mm²	
i Web code: #0208	Pin assignment	Pin 	Socket 	Pin 	Socket 
	25 mm square flange, mounting holes 4 x Ø 3.2 mm				
	Pre-assembled contact carrier, with 0.5 m long litz wires	1440805	–	1440821	–
	Contact carrier for crimp contacts, for assembly	1440931	–	1440944	–
	Crimp contacts Ø 1.0 mm, 0.14 ... 0.34 mm²	1452356	–	1452356	–
	Crimp contacts Ø 0.8 mm, 0.14 ... 0.34 mm²	–	–	–	–

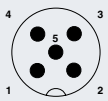
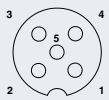
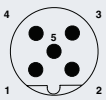
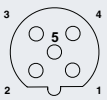
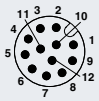
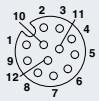
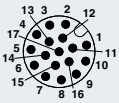
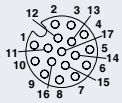
Signal – M12, with litz wires, rear mounting

Pre-assembled with 0.5 m long litz wires

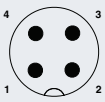
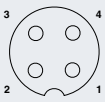
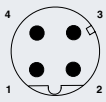
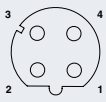
		4-pos.			
	Coding	A		D	
	Rated voltage	250 V		250 V	
	Nominal current	4 A		4 A	
	Conductor cross section	0.34 mm²		0.34 mm²	
i Web code: #0209	Pin assignment	Pin 	Socket 	Pin 	Socket 
Versions with cast zinc housing for screw fixing					
new 	Pg9	**1556618**	**1556621**	**1551532**	**1551529**
	M12 x 1	**1551875**	**–**	**1551901**	**–**
	M16 x 1.5	**1419629**	**1419632**	**1419603**	**1419616**
	M16 x 1.5, XL versions, wrench size 19	1411591	1411584	1411592	1411585
Versions with plastic housing for screw fixing					
	Pg9	–	–	–	–
Versions with stainless steel housing (1.4404) for screw fixing					
	Pg9	1405239	1405240	–	–

Articles in **bold font** feature the SPEEDCON fast locking system and are fully compatible with the M12 standard interlocking system.

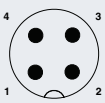
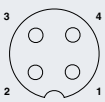
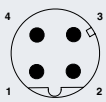
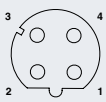
5-pos.				8-pos.		12-pos.		17-pos.	
A		B		A		A		A	
60 V		60 V		30 V		30 V		30 V	
4 A		4 A		2 A		1.5 A		1.5 A	
0.34 mm²		0.34 mm²		0.25 mm²		0.14 mm²		0.14 mm²	
Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
									
		1419959							
1440818	–	1440759	–	1457827	–	–	–	–	–
1419988	–	1440915	–	1440928	–	–	–	–	–
1452356	–	1452356	–	–	–	–	–	–	–
–	–	–	–	1452372	–	–	–	–	–

5-pos.				8-pos.		12-pos.		17-pos.	
A		B		A		A		A	
60 V		60 V		30 V		30 V		30 V	
4 A		4 A		2 A		1.5 A		1.5 A	
0.34 mm²		0.34 mm²		0.25 mm²		0.14 mm²		0.14 mm²	
Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
									
1542703	**1542729**	**1543663**	**1543676**	**1542716**	**1542732**	**1430459**	**1430446**	**1430475**	**1430462**
1551888	**–**	**1551891**	**–**	**1551914**	**–**	**1437122**	**–**	**1437135**	**–**
1419645	**1419658**	**1419661**	**1419674**	**1419687**	**1419690**	**1419700**	**1419713**	**1419726**	**1419739**
1411593	1411586	1411594	1411587	1411595	1411588	1411596	1411589	1411597	1411590
–	1436356	–	–	–	1436369	–	–	–	–
1554681	1554717	–	–	1554694	1554720	–	–	–	–

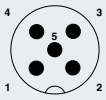
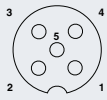
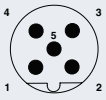
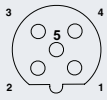
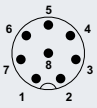
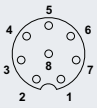
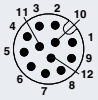
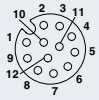
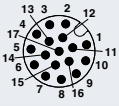
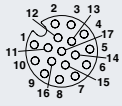
Signal – M12, with cable, rear mounting

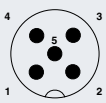
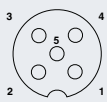
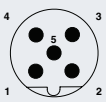
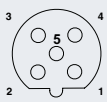
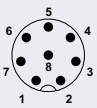
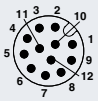
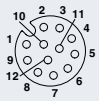
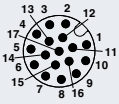
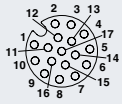
Assembled cable/control cabinet feed-through	Coding	A		D	
	Rated voltage	250 V		250 V	
	Nominal current	4 A		4 A	
Web code: #0210	Pin assignment	Pin 	Socket 	Pin 	Socket 
Versions for screw fixing, shielded					
	M16 x 1.5 cable length 1 m, PUR black	1419399	1419302	–	–
	M16 x 1.5 cable length 2 m, PUR black	1419386	1419315	–	–
Control cabinet feed-throughs for screw fixing					
	M16 x 1.5 pin to socket	–	–	–	–
	M16 x 1.5 socket to socket	–	–	–	1424326

Signal – M12, solder connection, front mounting

For soldering processes	Coding	A		D	
	Rated voltage	250 V		250 V	
	Nominal current	4 A		4 A	
Web code: #0212	Pin assignment	Pin 	Socket 	Pin 	Socket 
Versions for PCB assembly featuring torsion protection					
	20 mm square flange	**1456417**	**1456420**	**1456394**	**1456404**
Plastic versions, with solder cups					
	M12 x 1 fastening thread	–	–	–	–
	M16 x 1.5 fastening thread	–	–	–	–

Articles in **bold font** feature the SPEEDCON fast locking system and are fully compatible with the M12 standard interlocking system.

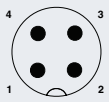
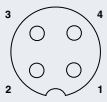
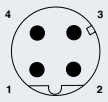
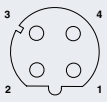
5-pos.				8-pos.		12-pos.		17-pos.	
A		B		A		A		A	
60 V		60 V		30 V		30 V		30 V	
4 A		4 A		2 A		1.5 A		1.5 A	
Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
									
1419409	1419328	–	–	1419425	1419357	1442227	1442188	1442308	1442269
1419412	1419331	–	–	1419438	1419344	1442230	1442191	1442311	1442272
1551671	–	1551684	–	1551697	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–

5-pos.				8-pos.		12-pos.		17-pos.	
A		B		A		A		A	
60 V		60 V		30 V		30 V		30 V	
4 A		4 A		2 A		1.5 A		1.5 A	
Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
									
1456433	**1456446**	**1456459**	**1456462**	**1408574**	**1408573**	–	–	–	–
1436437	–	–	–	1436440	–	–	–	–	–
1436398	–	–	–	1436408	–	–	–	–	–

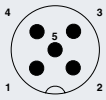
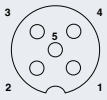
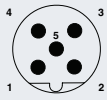
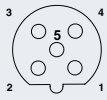
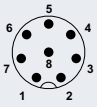
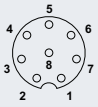
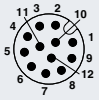
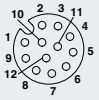
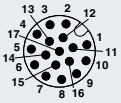
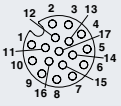
Signal – M12, solder connection, rear mounting

4-pos.

For wave soldering processes

	Coding		**A**		**D**	
	Rated voltage		250 V		250 V	
	Nominal current		4 A		4 A	
Web code: #0213	**Pin assignment**		**Pin** 	**Socket** 	**Pin** 	**Socket** 
Versions with cast zinc housing, one-piece, straight for screw fixing						
	**Pg9**	6 mm solder pins	**1553459**	**1553462**	**1551516**	**1551503**
		12 mm solder pins	–	–	**1552308**	**1552272**
	M12 x 1	6 mm solder pins	**1551820**	–	**1551859**	–
	M16 x 1.5	6 mm solder pins	**1419742**	**1419755**	**1441749**	**1441752**
	**Pg9, with shield contact**	6 mm solder pins	**1556841**	–	**1553035**	**1553006**
		12 mm solder pins	**1558535**	**1558522**	**1558519**	**1558506**
	M12 x 1, with shield contact	6 mm solder pins	**1552955**	–	**1552984**	–
	M16 x 1.5, with shield contact	6 mm solder pins	**1419768**	**1419771**	**1441862**	**1441875**
Versions with plastic housing, one-piece, straight for screw fixing						
	**Pg9**		–	–	–	–
	Pg9 with solder cups	max. 0.34 mm²	–	–	–	–
		max. 0.25 mm²	–	–	–	–
Versions with stainless steel housing (1.4404), one-piece, straight for screw fixing						
	**Pg9**		1404979	1404974	–	–
Two-piece, straight						
	**Shielded, straight**		–	–	–	1534627
	Straight		–	–	–	–

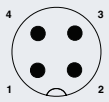
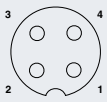
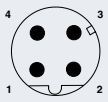
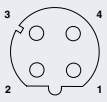
Articles in **bold font** feature the SPEEDCON fast locking system and are fully compatible with the M12 standard interlocking system.

5-pos.				8-pos.		12-pos.		17-pos.	
A		B		A		A		A	
60 V		60 V		30 V		30 V		30 V	
4 A		4 A		2 A		1.5 A		1.5 A	
Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
									
1542745	1542761	1543647	1543650	1542758	1542774	1559932	1559929	1559961	1559958
1552311	1552285	1552324	1552298	–	1408770	–	–	–	–
1551833	–	1551846	–	1551862	–	1559945	–	1559974	–
1441765	1441778	1441781	1441794	1441804	1441817	1441820	1441833	1441846	1441859
1553048	1553019	1553051	1553022	1553873	1553860	1436783	1436770	1436819	1436806
1558551	1558548	1558577	1558564	–	1408771	–	–	–	–
1552968	–	1552971	–	1552997	–	1437106	–	1437119	–
1441888	1441891	1441901	1441914	1441927	1441930	1441943	1441956	1441969	1441972
–	1436330	–	–	–	1436343	–	–	–	–
–	1436314	–	–	–	–	–	–	–	–
–	–	–	–	–	1436327	–	–	–	–
1554746	1554733	–	–	1529807	1529797	–	–	–	–
1437193	–	1437203	1437180	–	–	–	–	–	–
1694211	1694237	1514883	1515934	–	1556854	–	–	–	–

Signal – M12, solder connection, rear mounting

4-pos.

For reflow and wave soldering processes

Coding		A		D	
Rated voltage		250 V		250 V	
Nominal current		4 A		4 A	
Pin assignment		Pin 	Socket 	Pin 	Socket 

Web code: #0214

Two-piece contact carriers for reflow soldering processes

Straight, shielded, THR in tray	1439939	1439955	1552214	1551451
Straight, shielded, THR on reel	1457500	1457623	1457513	1457636
Straight, THR in tray	1437164	1439942	–	–
Straight, THR on reel	1457490	1457610	–	–

Two-piece contact carriers for wave soldering processes

Angled, shielded	1439887	1432444	1436673	1432457
Angled	1436660	1436628	–	–
Shielded, straight	–	–	–	1551480
Straight	–	–	–	–

Housing screw connections for two-piece contact carriers for reflow and wave soldering processes

SPEEDCON screw versions with O-Ring, front mounting	Socket	
	Pin	
Screw versions with O-Ring, front mounting	Socket	
	Pin	
SPEEDCON screw versions with flat gasket, front mounting	Socket	
	Pin	

new

Screw versions with O-Ring, rear mounting	Socket	
	Pin	
SPEEDCON screw versions with O-Ring, rear mounting	Socket	
	Pin	

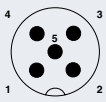
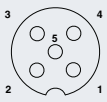
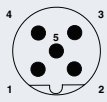
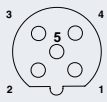
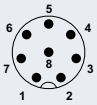
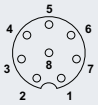
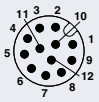
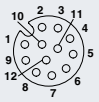
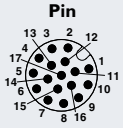
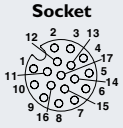
new

Clip-in version, tolerance-compensating, rear snap-in mounting	Socket	For housing thicknesses 1.0 ... 1.8 mm	
	Socket	For housing thicknesses 1.7 ... 2.5 mm	
	Socket	For housing thicknesses 2.4 ... 3.2 mm	
	Socket	For housing thicknesses 3.1 ... 3.9 mm	
Accessories: colored fixed sleeve	Color	Blue	Water blue
		1417782	1417783

Press-in versions, front mounting	Socket	
	Pin	

[1], [2] Distance from PCB upper edge to housing front plate rear edge: [1] 6 mm / [2] 7 mm

Articles in **bold font** feature the SPEEDCON fast locking system and are fully compatible with the M12 standard interlocking system.

5-pos.				8-pos.		12-pos.		17-pos.	
A		B		A		A		A	
60 V		60 V		30 V		30 V		30 V	
4 A		4 A		2 A		1.5 A		1.5 A	
Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
									
1432350	1432363	1552230	1551435	1557581	1551422	1442065	1442052	1442081	1442078
1457539	1457652	1457542	1457665	1457568	1457681	1457584	1457704	1457607	1457720
1552227	1551448	–	–	1552269	1557808	1441985	1441970	1442007	1441998
1457526	1457649	–	–	1457555	1457678	1457571	1457694	1457597	1457717
1439890	1432431	1436699	1432512	1437038	1437009	1424198	1424199	1424200	1424201
1436686	1436644	–	–	1436987	1436990	1424194	1424195	1424196	1424197
–	–	–	1551477	–	–	–	–	–	–
–	1551464	–	–	–	–	–	–	–	–
		1552243							
		1551493							
		1416144							
		1416145							
		1432460							
		1436709							
		1414004[1] / 1414003[2]							
		1413997[1] / 1413996[2]							
		1414020[1] / 1414005[2]							
		1413999[1] / 1413998[2]							
		1414231							
		1414232							
		1414233							
		1414234							
Red		Yellow		Green		Violet		Orange	
1417784		1417785		1417787		1417788		1417789	
		1437889							
		1437892							

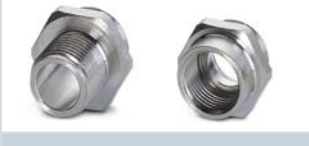
Signal – M12, solder connection, rear mounting

For SMD soldering processes		4-pos.			
	Coding	A		D	
	Rated voltage	250 V		250 V	
	Nominal current	4 A		4 A	
Web code: #0215	Pin assignment	Pin	Socket	Pin	Socket

Two-piece contact carrier for SMD soldering processes

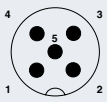
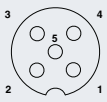
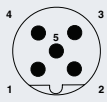
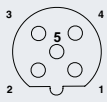
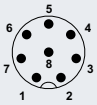
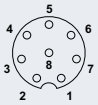
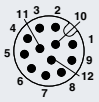
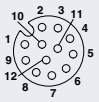
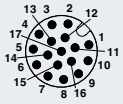
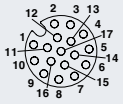
new 	**Straight, in tray**	1411924	1411907	1411925	1411912
	Straight, on reel	1411982	1411974	1411983	1411975
new 	**Straight, shielded, in tray,** additional gasket for the device when not plugged in (IP67)	1411955	1411949	1411956	1411950
	Straight, shielded, on reel, additional gasket for the device when not plugged in (IP67)	1412010	1412004	1412011	1412005
new 	**Straight, in tray,** additional gasket for the device when not plugged in (IP67)	1411941	1411935	1411942	1411936
	Straight, on reel, additional gasket for the device when not plugged in (IP67)	1411996	1411990	1411997	1411991

Housing screws for two-piece contact carrier for SMD soldering processes

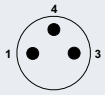
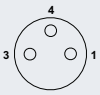
new 	**Screw versions, rear mounting, screw fixing M15 x 1**	Socket	
		Pin	
	SPEEDCON screw versions, rear mounting, screw fixing M15 x 1	Socket	
		Pin	
new 	**Screw versions, front mounting, screw fixing M14 x 1**	Socket	
		Pin	
	M14 x 1 flat nut		
new 	**Press-in versions, front mounting**	Socket	
		Pin	

[1] Without additional gasket for the device when not plugged in

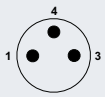
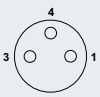
Articles in **bold font** feature the SPEEDCON fast locking system and are fully compatible with the M12 standard interlocking system.

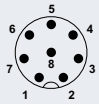
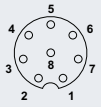
5-pos.				8-pos.		12-pos.		17-pos.	
A		B		A		A		A	
60 V		60 V		30 V		30 V		30 V	
4 A		4 A		2 A		1.5 A		1.5 A	
Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
									
1411926	1411913	1411927	1411914	1411928	1411915	1411929	1411916	1411930	1411917
1411984	1411976	1411985	1411977	1411986	1411978	1411987	1411979	1411988	1411980
1411957	1411951	1411958	1411952	1411959	1411953	1411960	1411954	1411961	1411966[1)]
1412012	1412006	1412013	1412007	1412014	1412008	1412015	1412009	1412016	1412018[1)]
1411943	1411937	1411944	1411938	1411945	1411939	1411946	1411940	1411947	–
1411998	1411992	1411999	1411993	1412000	1411994	1412001	1411995	1412002	–
		1414021							
		1414000							
		1414023							
		1414002							
		1412079							
		1412078							
		1412077							
		1412081							
		1412080							

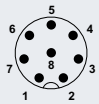
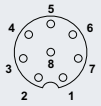
Signal – M8, with litz wires

Pre-assembled with 0.5 m long litz wires		3-pos.	
	Coding	A	
	Rated voltage	60 V	
	Nominal current	4 A	
	Conductor cross section	0.25 mm²	
Web code: #0216	Pin assignment	Pin 	Socket 
Front mounting			
	M8 x 0.5 fastening thread	1500334	1500350
	M8 flat nut		
	M10 fastening thread	–	–
Rear mounting			
	M8 x 1 fastening thread	1453478	–
	M10 fastening thread	–	1456080
	M12 fastening thread	–	1453449

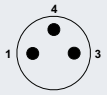
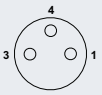
Signal – M8, solder connection

For wave soldering processes		3-pos.	
	Coding	A	
	Rated voltage	60 V	
	Nominal current	4 A	
Web code: #0218	Pin assignment	Pin 	Socket 
Rear mounting, one-piece			
	M8 fastening thread, straight	1694334	–
	M12 fastening thread, straight	–	1694363
	M8 fastening thread, straight, shielded	1455997	–
	M8 fastening thread, angled, shielded	1456035	–
	M10 fastening thread, straight, shielded	–	1456116
	M10 fastening thread, angled, shielded	–	1456145
Rear mounting, two-piece			
	M8 fastening thread, straight	–	1524776
	M8 fastening thread, angled	1440070	1524788

4-pos.		6-pos.		8-pos.	
A		A		A	
60 V		60 V		30 V	
4 A		2 A		1.5 A	
0.25 mm²		0.14 mm²		0.14 mm²	
Pin 	Socket 	Pin 	Socket 	Pin 	Socket 
1500347	1500363	1542664	1542677	–	–
1504071					
–	–	–	–	1424232	1424231
1453481	–	1453494	–	1424230	–
–	1456093	–	1456103	–	–
–	1453452	–	1453465	–	–

4-pos.		6-pos.		8-pos.	
A		A		A	
60 V		60 V		30 V	
4 A		2 A		1.5 A	
Pin 	Socket 	Pin 	Socket 	Pin 	Socket 
1694347	–	1436521	–	1424238	–
–	1694376	–	1436534	–	1424237
1456019	–	1456022	–	1424236	–
1456048	–	1424244	–	–	–
–	1456129	–	1456132	–	1424235
–	1456158	–	1424243	–	–
–	1524789	–	–	–	–
1440096	1526169	–	–	–	–

Signal – M8, solder connection, rear mounting

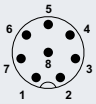
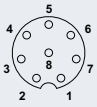
For SMD soldering processes		3-pos.	
	Coding	A	
	Rated voltage	60 V	
	Nominal current	4 A	
Web code: #0219	Pin assignment	Pin 	Socket 

Two-piece contact carrier for SMD soldering processes

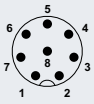
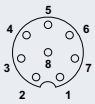
new 	**Straight, in tray**	1412225	1412220
	Straight, on reel	1412248	1412243
new 	**Straight, shielded, in tray,** additional gasket for the device when not plugged in	1412240	1412235
	Straight, shielded, on reel, additional gasket for the device when not plugged in	1412263	1412257
new 	**Straight, in tray,** additional gasket for the device when not plugged in	1412233	1412227
	Straight, on reel, additional gasket for the device when not plugged in	1412255	1412250

Housing screws for two-piece contact carrier for SMD soldering processes

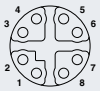
new 	**Screw versions for rear mounting, screw fixing M12 x 1**	Socket	
		Pin	
new 	**Screw versions for front mounting, screw fixing M10 x 0.75**	Socket	
		Pin	
	M10 x 0.75 flat nut		
new 	**Press-in versions for front mounting**	Socket	
		Pin	

4-pos.		6-pos.		8-pos.	
A		A		A	
60 V		60 V		30 V	
4 A		2 A		1.5 A	
Pin 	Socket 	Pin 	Socket 	Pin 	Socket 
1412226	1412221	–	1412223	–	1412224
1412249	1412244	–	1412246	–	1412247
1412241	1412236	–	1412238	–	1412239
1412264	1412258	–	1412261	–	1412262
1412234	1412228	–	1412230	–	1412232
1412256	1412251	–	1412253	–	1412254
	1412506				
	1412505				
	1412504				
	1412502				
	1412508				
	1412501				
	1412500				

Signal – M5		3-pos.		4-pos.	
	Coding	**A**		**A**	
	Rated voltage	60 V		60 V	
	Nominal current	1 A		1 A	
	Conductor cross section	0.14 mm²		0.14 mm²	
Web code: #0220	**Pin assignment**	**Pin** 	**Socket** 	**Pin** 	**Socket** 
Front mounting, pre-assembled with 0.5 m long litz wires					
	**M5 fastening thread**	1530582	1530605	1530595	1530618
	Flat nut with M5 thread	1535901			
Rear mounting, one-piece for wave soldering processes					
	**M5 fastening thread**	1530621	1530647	1530634	1530650
	Flat nut with M5 thread	1535901			

Data – M12 for networks			4-pos.		8-pos.	
	Coding		D		A	
	Rated voltage		250 V		30 V	
	Nominal current		4 A		2 A	
	Conductor cross section		0.14/0.34 mm²		0.14 mm²	
Web code: #0222	Pin assignment		Pin 	Socket 	Pin 	Socket 
Front/screw mounting, with assembled cable						
Ethernet 	M16 x 1.5, can be positioned, water blue, cable type 93E	2 m	–	1405837	–	–
Rear/screw mounting, with assembled cable						
Ethernet 	M16 x 1.5, water blue, cable type 93E	2 m	–	1405866	–	–
	M16 x 1.5, water blue, cable type 94B	5 m	–	–	–	1407877
	M16 x 1.5, water blue, cable type 94C	2 m	–	–	–	1412820
Rear/screw mounting, for soldering processes						
Ethernet 	M16 x 1.5, one-piece, contact carrier, water blue		1456514	1456527	–	–
Rear/screw mounting, with assembled cable						
PROFINET 	M16 x 1.5, green, cable type 93B	0.5 m	1437805	1437766	–	–
		1 m	1437818	1437779	–	–
		2 m	1437821	1437782	–	–
		5 m	1437834	1437795	–	–
	M16 x 1.5, green, cable type 93C	2 m	–	1416209	–	–
	M16 x 1.5, green, cable type 93R	2 m	–	1416263	–	–
Rear/screw mounting, for soldering processes						
PROFINET 	M16 x 1.5, one-piece, green contact carrier		1456556	1456569	–	–

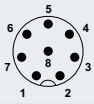
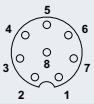
See the Signal – M12 section for additional 4-pos., D-coded connectors and 8-pos., A-coded connectors

Data – M12 for networks			8-pos.	8-pos.
	Coding		X	Y
	Rated voltage		48 V	30 V
	Nominal current		0.5 A	0.5 A / 6 A
	Conductor cross section		0.25 mm²	0.14/0.5 mm²
Web code: #0224	Pin assignment		Socket 	Socket 
Rear/screw mounting, with assembled cable				
Ethernet 	M16 x 1.5, water blue, cable type 94F	0.5 m	1424135	–
		1 m	1424148	–
		2 m	1424151	–
		5 m	1424164	–
Hybrid 	M16 x 1.5, black, cable type 94H	0.5 m	–	1407504
		1 m	–	1407505
		2 m	–	1407506
		5 m	–	1407507
Rear/screw mounting, pre-assembled with 0.5 m long litz wires				
new Hybrid 	M16 x 1.5		–	1407618
Rear/screw mounting, for soldering processes				
Ethernet Hybrid 	M16 x 1.5, one-piece, wave soldering		1424177	1407503
	Pg9, one-piece, wave soldering		1404741	–
Rear mounting, two-piece contact carriers for soldering processes				
new Ethernet 	Straight, shielded, **THR in tray**		1402457	–
	Straight, shielded, **THR on reel**		1413446	–
	Straight, shielded, **SMD in tray**		1411964	–
	Angled, shielded, **wave soldering**		1424180	–
new Hybrid 	Straight, shielded, **THR in tray**		–	1405225
	Straight, shielded, **THR on reel**		–	1413445
	Straight, shielded, **SMD in tray**		–	1411965
	Angled, shielded, **wave soldering**		–	1424193

See page 18 for housing screw connections for two-piece contact carriers for THR and wave soldering processes.

See page 20 for housing screw connections for two-piece contact carriers for SMD processes.

Articles in **bold font** feature the SPEEDCON fast locking system and are fully compatible with the M12 standard interlocking system.

Data – M12 for networks			4-pos.		8-pos.	
	Coding		D		A	
	Rated voltage		250 V		30 V	
	Nominal current		4 A		2 A	
	Conductor cross section		0.14/0.34 mm²		0.14 mm²	
Web code: #0226	Pin assignment		Pin 	Socket 	Pin 	Socket 
Rear/screw mounting, with assembled cable						
	M16 x 1.5, red, cable type 93K	0.5 m	1410158	1419154	–	–
		1 m	1419159	1419155	–	–
		2 m	1419160	1419156	–	–
		5 m	1419161	1419157	–	–
Rear/screw mounting, for soldering processes						
	M16 x 1.5, one-piece, contact carrier, red		1457979	1457966	–	–
Rear/screw mounting, with assembled cable						
	M16 x 1.5, green, cable type 93G	0.5 m	1419138	1419134	–	–
		1 m	1419139	1419135	–	–
		2 m	1419140	1419136	–	–
		5 m	1419141	1419137	–	–
Rear/screw mounting, for soldering processes						
	M16 x 1.5, one-piece, green contact carrier		1456556	1456569	–	–
Rear/screw mounting, with assembled cable						
	M16 x 1.5, black, cable type 970	0.5 m	–	–	1429059	1429091
		1 m	–	–	1429062	1429101
		2 m	–	–	1429075	1429114
		5 m	–	–	1429088	1429127

See the Signal – M12 section for additional 4-pos., D-coded connectors and 8-pos., A-coded connectors

Data – M12 for fieldbuses			5-pos.	
	Coding		B	
	Rated voltage		60 V	
	Nominal current		4 A	
	Conductor cross section		0.34 mm²	
Web code: #0229	Pin assignment		Pin 	Socket 
Front/screw mounting, with assembled cable				
	M16 x 1.5, can be positioned, violet, cable type 910	0.5 m	1525555	1525597
		1 m	1525568	1525607
		2 m	1519561	1519574
		5 m	1525571	1525610
Rear/screw mounting, with assembled cable				
	Pg9, violet, cable type 910	0.5 m	1437481	1437449
		1 m	1437494	1437452
		2 m	1437504	1437465
		5 m	1437517	1437478
	M16 x 1.5, violet, cable type 910	0.5 m	1534342	1534384
		1 m	1534355	1534397
		2 m	1534368	1534407
		5 m	1534371	1534410
Rear/screw mounting, for soldering processes				
	M16 x 1.5, one-piece, contact carrier, violet		1456475	1456488

See the Signal – M12 section for additional 5-pos., B-coded connectors

Articles in **bold font** feature the SPEEDCON fast locking system and are fully compatible with the M12 standard interlocking system.

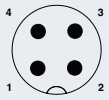
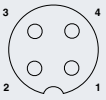
Data – M12 for fieldbuses			5-pos.	
	Coding		**B**	
	Rated voltage		60 V	
	Nominal current		4 A	
	Conductor cross section		0.34 mm²	
Web code: #0230	**Pin assignment**		**Pin** 	**Socket** 
Front/screw mounting, with assembled cable				
	**M16 x 1.5, green, cable type 910**	**0.5 m**	1529629	1529742
		1 m	1530223	1529755
		2 m	1529726	1529768
		5 m	1529739	1529771
Rear/screw mounting, with assembled cable				
	**Pg9, green, cable type 900**	**0.5 m**	1437643	1437601
		1 m	1434656	1437614
		2 m	1437669	1437627
		5 m	1437672	1437630
	Pg9 EMC nut		1440177	
	M16 x 1.5, green, cable type 900	**0.5 m**	1534504	1534546
		1 m	1534517	1534559
		2 m	1534520	1534562
		5 m	1534533	1534575
	M16 x 1.5 EMC nut		1440164	
Rear/screw mounting, for soldering processes				
	**M16 x 1.5, one-piece, green contact carrier**		1456572	1456585
	M16 x 1.5 EMC nut		1440164	

See the Signal – M12 section for additional 5-pos., B-coded connectors

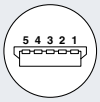
Data – M12 for fieldbuses			5-pos.	
	Coding		**A**	
	Rated voltage		60 V	
	Nominal current		4 A	
	Conductor cross section		0.25/0.34 mm²	
Web code: #0231	**Pin assignment**		**Pin** 	**Socket** 
Front/screw mounting, with assembled cable				
	**M16 x 1.5, violet, cable type 920**	**0.5 m**	**1525623**	**1525678**
		1 m	**1525636**	**1525681**
		2 m	**1525649**	**1525694**
		5 m	**1525652**	**1525704**
Rear/screw mounting, with assembled cable				
	**Pg9, violet, cable type 920**	**0.5 m**	**1437562**	**1437520**
		1 m	**1437575**	**1437533**
		2 m	**1437588**	**1437546**
		5 m	**1437591**	**1437559**
	Pg9 EMC nut		1440177	
	M16 x 1.5, violet, cable type 920	**0.5 m**	**1534423**	**1534465**
		1 m	**1534436**	**1534478**
		2 m	**1534449**	**1534481**
		5 m	**1534452**	**1534494**
	M16 x 1.5 EMC nut		1440164	
Rear/screw mounting, for soldering processes				
	**M16 x 1.5, one-piece, contact carrier, violet**		1456491	1456501
	M16 x 1.5 EMC nut		1440164	

See the Signal – M12 section for additional 5-pos., A-coded connectors

Articles in **bold font** feature the SPEEDCON fast locking system and are fully compatible with the M12 standard interlocking system.

Data – M12 for fieldbuses			4-pos.	
	Coding		A	
	Rated voltage		250 V	
	Nominal current		4 A	
	Conductor cross section		0.34 mm²	
Web code: #0232	Pin assignment		Pin 	Socket 
Rear/screw mounting, with assembled cable				
CC-Link 	M16 x 1.5, red, cable type 990	0.5 m	–	1559819
		1 m	–	1559822
		2 m	–	1559835
		5 m	–	1559848
	Pg9, red, cable type 990	0.5 m	–	1437847
		1 m	–	1437850
		2 m	–	1437863
		5 m	–	1437876
Rear/screw mounting, for soldering processes				
CC-Link 	M16 x 1.5, one-piece, contact carrier, red		1457856	1457869
Front/screw mounting, pre-assembled with 0.5 m long litz wires				
	Pg9, shielded		1431432	1431429
	Pg9 flat nut		1504084	
Rear/screw mounting, for soldering processes, shielded				
	M16 x 1.5, one-piece, stainless steel (1.4404)		1554746	1554733
	M16 x 1.5, one-piece, contact carrier, yellow		**1457872**	**1457885**
	M16 x 1.5, one-piece, contact carrier, blue		**1457953**	**1457940**

See the Signal – M12 section for additional 4-pos., A-coded connectors

Data – M12 for USB		USB	
Web code: #0235	Pin assignment		
Rear/screw mounting, with solder connection			
	**M12 x 1, Mini-B USB 2.0**	**1440711**	–

Data – M12 for FO			Fiber optics
Web code: #0236			
Rear/screw mounting, with solder connection			
	**M16 x 1.5, fiber optic transceiver**	–	1416716

Articles in **bold font** feature the SPEEDCON fast locking system and are fully compatible with the M12 standard interlocking system.

Data – M8 for fieldbuses		5-pos.	
	Coding	B	
	Rated voltage	30 V	
	Nominal current	3 A	
	Conductor cross section	0.25 mm²	
Web code: #0237	Pin assignment	Pin 	Socket 
Front mounting, pre-assembled with 0.5 m long litz wires			
DeviceNet 	M10 fastening thread	1424234	1424233
Rear mounting, for wave soldering processes			
DeviceNet 	M8 fastening thread, straight, shielded	1424242	–
	M8 fastening thread, angled, shielded	1424240	–
	M10 fastening thread, straight, shielded	–	1424241
	M10 fastening thread, angled, shielded	–	1424239
Rear mounting, two-piece contact carrier for SMD processes			
new DeviceNet 	Straight, in tray	–	1412222
	Straight, on reel	–	1412245
	Straight, in tray, additional gasket for the device when not plugged in	–	1412229
	Shielded	–	1412237
	Straight, on reel, additional gasket for the device when not plugged in	–	1412252
	Shielded	–	1412259

See page 24 for housing screw connections for two-piece contact carriers for SMD processes.

Power – M12 up to 16 A/630 V		3 (2+PE)-pos.		4 (3+PE)-pos.		4-pos.	
	Coding	**S (AC)**		**S (AC)**		**T (DC)**	
	Rated voltage	630 V		630 V		60 V	
	Nominal current	16 A		12 A		12 A	
	Conductor cross section	1.5 mm²		1.5 mm²		1.5 mm²	
Web code: #0238	**Pin assignment**	**Pin**	**Socket**	**Pin**	**Socket**	**Pin**	**Socket**
Front mounting, pre-assembled with 0.5 m long litz wires							
	**M16 x 1.5 fastening thread, one-piece**	1411655	1411654	1424139	1424137	1424140	1424138
	M16 x 1.5 flat nut	1504097					
new 	**M16 x 1.5 fastening thread, XL versions, wrench size 19**	–	–	1411607	1411605	1411608	1411606
	M16 x 1.5 flat nut	1504097					
	**25 mm square flange, modular, mounting holes 4 x Ø 2.7 mm**	**1424131**					
	Pre-assembled contact carrier, modular	–	–	1424129	–	1424130	–
Rear mounting, pre-assembled with 0.5 m long litz wires							
	**M16 x 1.5 fastening thread, one-piece**	1411653	1411652	1424132	1424133	1424136	1424134
new 	**M16 x 1.5 fastening thread, XL versions, wrench size 19**	–	–	1411603	1411598	1411604	1411599

Articles in **bold font** feature the SPEEDCON fast locking system and are fully compatible with the M12 standard interlocking system.

Power – M12 up to 16 A/630 V		4 (3+PE)-pos.		4-pos.	
	Coding	S (AC)		T (DC)	
	Rated voltage	630 V		60 V	
	Nominal current	12 A		12 A	
	Conductor cross section	1.5 mm²		1.5 mm²	
Web code: #0240	Pin assignment	Pin 	Socket 	Pin 	Socket 
Rear mounting, two-piece contact carrier for reflow processes					
 	Straight	1406410	1406409	1406396	1406411
	Straight, on reel	1418343	1418344	1418339	1418340
	Shielded, straight	–	–	1406397	1406412
	Straight, shielded, on reel	–	–	1418341	1418342
Rear mounting, two-piece contact carrier for SMD processes					
new  	Straight, in tray	–	–	1411931	1411918
	Straight, on reel	–	–	1411989	1411981
	Straight, shielded, in tray	–	–	–	1411967
	Straight, shielded, on reel	–	–	–	1412019
new 	Straight, in tray, additional gasket for the device when not plugged in	–	–	1411948	–
	Straight, on reel, additional gasket for the device when not plugged in	–	–	1412003	–
new 	Straight, shielded, in tray, additional gasket for the device when not plugged in	–	–	1411962	–
	Straight, shielded, on reel, additional gasket for the device when not plugged in	–	–	1412017	–

See page 18 for housing screw connections for two-piece contact carriers for reflow processes.

See page 20 for housing screw connections for two-piece contact carriers for SMD processes.

Signal – M12 connectors for assembly

Web code: #0242	Coding	Type	4-pos.		5-pos.		8-pos.	
			Pin	Socket	Pin	Socket	Pin	Socket
Screw connection, SPEEDCON knurl, cable outer diameter Ø: 4 mm ... 6 mm								
	A - Standard	Straight	1542952	1543029	1542965	1543032		
	A - Standard	Angled	1542981	1543058	1542994	1543061		
Screw connection, SPEEDCON knurl, cable outer diameter Ø: 6 mm ... 8 mm								
	A - Standard	Straight			1542978	1543045		
	A - Standard	Angled			1543003	1543414		
Screw connection, metal knurl, cable outer diameter Ø: 4 mm ... 6 mm								
	A - Standard	Straight	1662528	1681127	1663116	1662968		
	A - Standard	Angled	1681101	1681143	1663129	1662984		
Screw connection, metal knurl, cable outer diameter Ø: 6 mm ... 8 mm								
	A - Standard	Straight	1523230	1696439	1681460	1681486	1513334	1513347
	A - Standard	Angled			1681473	1681499		
Screw connection, metal knurl, cable outer diameter Ø: 4 mm ... 6mm, with SKINTOP screw connection								
	A - Standard	Straight	1556870	1430381	1456466	1559000		
Screw connection, metal knurl, cable outer diameter Ø: 6 mm ... 8mm, with SKINTOP screw connection								
	A - Standard	Straight			1556825	1556838		
	A - Standard	Angled			1561742	1556812		
Screw connection, metal knurl, cable outer diameter Ø: 4 mm ...6 mm, shielded								
	A - Standard	Straight	1693830	1694295	1693416	1694305		
	A - Standard	Angled	1694279		1693429			
Screw connection, metal knurl, cable outer diameter Ø: 6 mm ...8 mm, shielded								
	A - Standard	Straight	1501540	1515170	1694266	1694318	1511857	1511860
	A - Standard	Angled			1694282	1430433		

Signal – M12 connectors for assembly

Web code: #0243	Coding	Type	4-pos.		5-pos.	
			Pin	Socket	Pin	Socket
Spring-cage connection						
	A - Standard	Straight	1432635	1432619	1432567	1432583
	A - Standard	Angled	1432606	1432622	1432570	1432596
Spring connection, shielded						
	A - Standard	Straight	1432729	1432745	1432648	1432664
	A - Standard	Angled	1432732	1432758	1432651	1432677
IDC connection, conductor cross section: 0.14 mm² ... 0.34 mm²						
	A - Standard	Plastic knurl	1641714	1641701		
	A - Standard	SPEEDCON knurl	1521575	1521588		
	A - Standard	Metal knurl	1641691	1641688		
IDC connection, conductor cross section: 0.34 mm² ... 0.75 mm²						
	A - Standard	Plastic knurl	1641769	1641756		
	A - Standard	SPEEDCON knurl	1521591	1521601		
	A - Standard	Metal knurl	1641785	1641772		
IDC connection, conductor cross section: 0.14 mm² ... 0.75 mm²						
new 	A - Standard	Straight	1413993	1413994	1413991	1413992

Signal – M12 connectors for assembly, high pos.

Web code: #0245	Coding	Type	12-pos.		17-pos.	
			Pin	Socket	Pin	Socket
Piercecon® connection, conductor cross section: 0.14 mm²						
	A - Standard	Straight	1559592	1559631	1559602	1559644

Signal – M8 connectors for assembly

Web code: #0246

	Type	3-pos.		4-pos.	
		Pin	Socket	Pin	Socket
Solder connection, conductor cross section: 0.08 mm² ... 0.25 mm²					
	Straight	1681156	1681172	1681169	1681185
	Angled	1699902	1529399	1554209	1513444
Solder connection, shielded, conductor cross section: 0.08 mm² ... 0.25 mm²					
	Straight	1506901	1506927	1506914	1506930
	Angled	1436453	1436479	1436466	1436482
Screw connection, conductor cross section: 0.14 mm² ... 0.5 mm²					
	Straight	1501252	1506888	1501265	1506891
	Angled	1407583	1407582	1407585	1407584
Screw connection, shielded, conductor cross section: 0.14 mm² ... 0.5 mm²					
	Straight	1542884	1542907	1542897	1542910
IDC connection, conductor cross section: 0.08 mm² ... 0.25 mm²*					
	Straight	1441008	1441040	1441011	1441053
IDC connection, conductor cross section: 0.25 mm² ... 0.5 mm²*					
	Straight	1441024	1441066	1441037	1441079

Data – M12 connectors for assembly

Web code: #0249	Coding	Type	4-pos.		5-pos.		8-pos.	
			Pin	Socket	Pin	Socket	Pin	Socket
Spring connection, shielded, for field buses								
	INTERBUS	Straight			1432800	1432826		
		Angled			1432813	1432839		
	PROFIBUS	Straight			1432842	1432868		
		Angled			1432855	1432871		
	DeviceNet	Straight			1432761	1432787		
		Angled			1432774	1432790		
Spring connection, shielded, for networks								
	PROFINET	Straight	1436738	1436741				
		Angled	1436754	1436767				
IDC connection, shielded, for networks								
new	Ethernet	Straight	1411066	1411069			1543236	1553640
		Angled	1553624	1553637			1553653	1553666
	Ethernet CAT 6_A	Straight					1411043	1414586
	PROFINET	Straight	1411068	1411071				
		Angled	1554539	1554542				
	PROFINET CAT 6_A	Straight					1411044	1414587
Piercecon connection, shielded, for networks								
	Ethernet CAT6_A	Straight					1417430	
		Angled					1417443	

Power – M12 connectors for assembly

Web code: #0252	Coding	Type	4-pos. (DC)		3+PE-pos. (AC)	
			Pin	Socket	Pin	Socket
Screw connection, conductor cross section up to 1.5 mm²						
	T power	Straight	1404643	1404644		
		Angled	1408988	1408989		
	S power	Straight			1404641	1404642
		Angled			1408985	1408987

Signal – cables with M8 or M12 connectors

Web code: #0283

Cable length	Signal cable M8, 3-pos.	Signal cable M8, 4-pos.	Signal cable M12, 3-pos.	Signal cable M12, 4-pos.	Signal cable M12, 5-pos.	Signal cable M12, 5-pos., shielded
Straight plug, free cable end						
3 m	1681677	1681790	1668027	1668056	1669770	1682744
5 m	1681680	1681800	1668030	1668069	1669783	1682731
10 m	1693584	1694143	1682566	1682993	1683361	1500732
Straight socket, free cable end						
3 m	1669725	1681855	1694499	1668111	1669835	1682948
5 m	1669628	1681868	1683510	1668124	1669848	1682951
10 m	1694101	1683484	1693034	1683002	1683374	1500758
Straight plug, straight socket						
0.3 m	1681907	–	–	1668357	1681583	–
0.6 m	1681910	–	–	1668360	1681596	–
1.5 m	1681923	–	–	1668373	1681606	–
3 m	1681936	–	–	1668386	1681619	–
Angled socket, free cable end						
3 m	1669741	1681884	1694512	1668234	1669864	1682977
5 m	1669631	1681897	1694525	1668247	1669877	1682980
10 m	1694169	1694172	1694538	1681389	1694541	1500761

Additional cables with connectors in sizes M5 through M40 for signals, data and power can be found at phoenixcontact.com

Data – network cables with M12 connectors

Web code: #0284

Cable length	Ethernet, X-coded	Ethernet, D-coded	PROFINET, D-coded	PROFIBUS, B-coded	DeviceNet/ CANopen A-coded	CC-Link A-coded
Straight plug, free cable end						
1 m	1407467	1407356	1407495	–	–	–
2 m	1407468	1407357	1407496	1518025	1518177	1558328
5 m	1407469	1407358	1407497	1518038	1518180	1558331
10 m	1407470	1407359	1407498	1518041	1518193	1558344
15 m	–	–	–	–	–	1558357
Variable	1408648	1408713	1408640	1538050	1538115	–
Straight socket, free cable end						
1 m	–	1407380	1407528	–	–	–
2 m	–	1407381	1407529	1518067	1518216	1558360
5 m	–	1407382	1407530	1518070	1518229	1558373
10 m	–	1407383	1407531	1518083	1518232	1558386
15 m	–	–	–	1518096	1518245	1558399
Variable	–	1408697	1408623	1538076	1538131	–
Straight plug, straight socket						
0.3 m	–	–	–	1518106	1518258	1558409
0.5 m	–	–	–	1518119	1518261	–
0.6 m	–	–	–	–	–	1558412
1 m	–	1407400	1407553	1518122	1518274	1558425
2 m	–	1407401	1407554	1518135	1518287	1558438
5 m	–	1407402	1407555	1518148	1518290	1558441
10 m	–	1407403	1407556	1518151	1518300	1558454
15 m	–	–	–	1518164	1518313	1558467
Variable	–	1408692	1408617	1538092	1538157	–
Straight plug, straight plug						
1 m	1407483	1407376	1407524	–	–	–
2 m	1407484	1407377	1407525	–	–	–
5 m	1407485	1407378	1407526	–	–	–
10 m	1407486	1407379	1407527	–	–	–
Variable	1408644	1408706	1408634	1433252	1433294	–

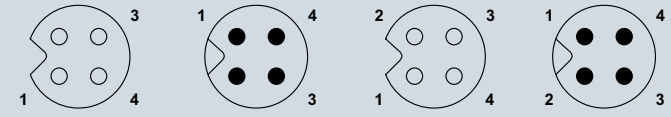
Additional cables with connectors in sizes M5 through M40 for signals, data and power can be found at phoenixcontact.com

Pin assignments and litz wire colors

Signal

M5 device connector

Pin assignments



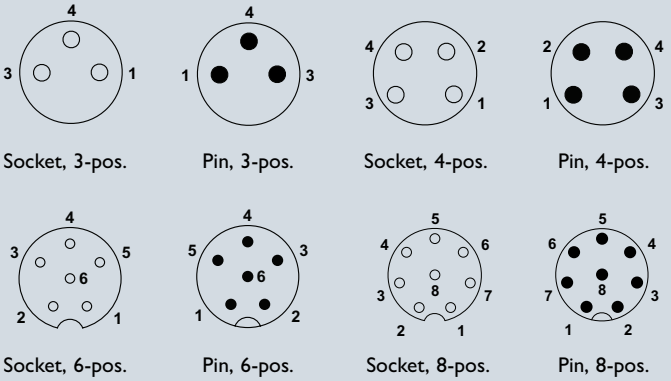
Litz wire colors

Assignment: M5 pin/socket

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

M8 device connector

Pin assignments



Litz wire colors

Assignment: M8 pin/socket

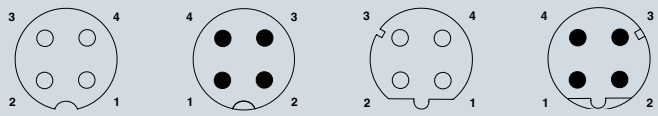
Pin	Wire color			
	3-pos.		4-pos.	
1	BN		BN	
2	–		WH	
3	BU		BU	
4	BK		BK	
5	–		–	
6	–		–	

Assignment: M8 pin/socket

Pin	Wire color			
	6-pos.		8-pos.	
1	BN		WH	
2	WH		BN	
3	BU		GN	
4	BK		YE	
5	GY		GY	
6	PK		PK	
7	–		BU	
8	–		RD	

M12 device connector

Pin assignments



Litz wire colors

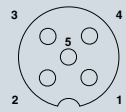
Assignment: M12 pin/socket

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

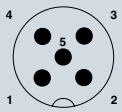
Signal

M12 device connector

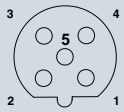
Pin assignments



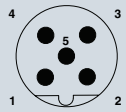
Socket, 5-pos., A-coded



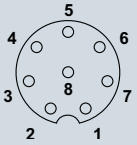
Pin, 5-pos., A-coded



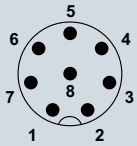
Socket, 5-pos., B-coded



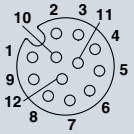
Pin, 5-pos., B-coded



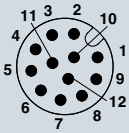
Socket, 8-pos.



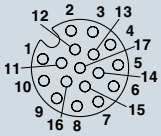
Pin, 8-pos.



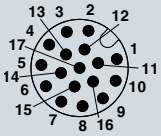
Socket, 12-pos.



Pin, 12-pos.



Socket, 17-pos.



Pin, 17-pos.

Assignment: M12 pin/socket

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	

Litz wire colors

Assignment: M12 pin/socket

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

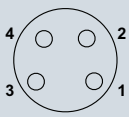
Assignment: M12 pin/socket

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	

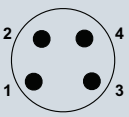
Data

M8 device connector

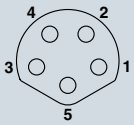
Pin assignments



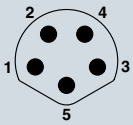
Socket, 4-pos. Ethernet



Pin, 4-pos. Ethernet



Socket, 5-pos., DeviceNet™, B-coded



Pin, 5-pos., DeviceNet™, B-coded

Assignment: CANopen/DeviceNet, 5-pos. B-coded

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

Assignment: Ethernet, 4-pos., A-coded

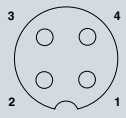
Pin	Wire color		Signal Ethernet
1	YE		TD+
2	OG		TD–
3	WH		RD+
4	BU		RD–

Pin assignments and litz wire colors

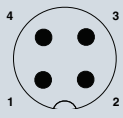
Data

M12 device connector

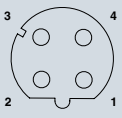
Pin assignments



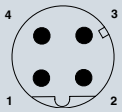
Socket, 4-pos., A-coded



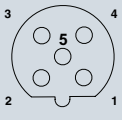
Pin, 4-pos., A-coded



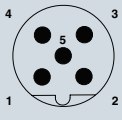
Socket, 4-pos., D-coded



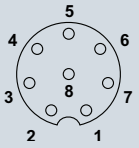
Pin, 4-pos., D-coded



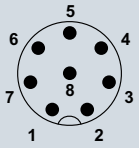
Socket, 5-pos., B-coded



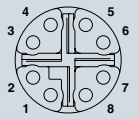
Pin, 5-pos., B-coded



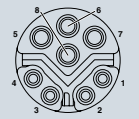
Socket, 8-pos., A-coded



Pin, 8-pos., A-coded



Socket, 8-pos., X-coded



Socket, 8-pos., Y-coded

Litz wire colors

Assignment: PROFIBUS, 5-pos., B-coded

Pin	Wire color	Signal PROFIBUS
1	–	–
2	GN	A cable
3	–	–
4	RD	B cable
5	Filler litz wire	–

Shield on housing

Assignment: CANopen, 5-pos. A-coded

Pin	Wire color	Signal CANopen
1	Shield	Drain
2	RD	V+
3	BK	V–
4	WH	CAN_H
5	BU	CAN_L

Shield on housing

Assignment: CANopen, 5-pos. A-coded

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

Shield on housing

Assignment: INTERBUS, 5-pos., B-coded

Pin	Wire color	Signal
1	YE	DO
2	GN	DO
3	GY	DI
4	PK	DI
5	BN	COM
–	WH	NC

Shield on housing

Assignment: PROFINET, EtherCAT, Sercos, 4-pos., D-coded

Pin	Wire color	Signal
1	YE	TD+
2	WH	RD+
3	OG	TD–
4	BU	RD–

Assignment: Ethernet, 4-pos., D-coded

Pin	Wire color	Signal Ethernet
1	WHOG	TD+
2	WHGN	RD+
3	OG	TD–
4	GN	RD–

Shield on housing

Assignment: FOUNDATION Fieldbus, 4-pos., A-coded

Pin	Wire color	Signal
1	BU	DATA–
2	OG	DATA+
3		Shield
4		

Data

M12 device connector

Litz wire colors

Assignment: Ethernet, 8-pos., A-coded

Pin	Wire color	Signal Ethernet
1	WHBU	D3–
2	WHBN	D4+
3	BN	D4–
4	OG	D1–
5	WHGN	D2+
6	WHOG	D1+
7	BU	D3+
8	GN	D2–

Assignment: Ethernet, 8-pos., X-coded

Pin	Wire color	Signal Ethernet
1	WHOG	D1+
2	OG	D1–
3	WHGN	D2+
4	GN	D2–
5	WHBN	D4+
6	BN	D4–
7	WHBU	D3–
8	BU	D3+

Assignment: Ethernet hybrid, 8-pos., Y-coded

Pin	Wire color	Signal Ethernet
1	WHOG	TD+
2	OG	TD–
3	WHGN	RD+
4	GN	RD–
5	BU	
6	WH	
7	BN	
8	BK	

Assignment: Varan, 8-pos., A-coded

Pin	Wire color	Signal
1	n. c.	
2	OG	TD–
3	WHOG	TD+
4	n. c.	
5	WHGN	RD+
6	BU	
7	BN	
8	GN	RD–

Assignment: SFC-Interface, 4-pos., A-coded

Pin	Wire color	Signal
1	BU	SFC-i+
2	WH	
3	BN	SFC-i–
4	BK	

Assignment: CC-Link, 4-pos., A-coded

Pin	Wire color	Signal
1	Shield	SLD
2	WH	DS
3	YE	DG
4	BU	DA

Power

M12 device connector

Pin assignments

Socket, 2+PE, S-coded

Pin, 2+PE, S-coded

Socket, 3+PE, S-coded

Pin, 3+PE, S-coded

Socket, 4-pos., T-coded

Pin, 4-pos., T-coded

Litz wire colors

Assignment: 2+PE, S-coded

Pin	Wire color
1	BK1
3	BK2
PE	GNYE

Assignment: 3+PE, S-coded

Pin	Wire color
1	BK1
2	BK2
3	BK3
PE	GNYE

Assignm.: 4-pos., T-coded

Pin	Wire color
1	BN
2	WH
3	BU
4	BK

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