



M5 to M12 circular connectors

Product overview 2023

M5 to M12 circular connectors

Circular connectors in metric sizes M5 to M12 have become standard in numerous industries and areas of application. The broad product range from Phoenix Contact enables uniform connection solutions for signal, data, and power transmission in the device.

DATA

Data rates up to 10 Gbps

- Codings for all common fieldbus systems
- Hybrid connectors for simultaneous data and power transmission (Power over Ethernet)
- Components in accordance with CAT6_A

i Web code: #0682



Find out more with the web code

For detailed information, use the web codes provided in this brochure. Simply enter # and the four-digit number in the search field on our website.

i Web code: #1234 (example)

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



SIGNAL

Signals up to 17-pos.

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

i Web code: #0680

POWER

Power up to 16 A/690 V

- Connection cross-sections up to 2.5 mm²
- For 1-phase and 3-phase mains voltage applications
- Protected against mismatching for AC and DC applications

i Web code: #0681



Contents

Overview: M5 to M12 circular connectors 2

Unrivalled variety for signals, data, and power 4

M12 Push-Pull – the new standard in automation technology 6

Page navigation 14

Device connectors

Signals	16
Data	33
Power	42

Connectors designed for assembly

Signals	46
Data	50
Power	51

Assembled cables

Signals	53
Data	55
Power	58

Accessories 59

Pin assignments and litz wire colors 60

Excellent services 64

Unrivalled variety for signals, data, and power

Industrial electronics is developing at a rapid pace and constantly placing new demands on connection technology. Phoenix Contact offers innovative circular connectors for virtually all areas of application. A modular structure and numerous pin assignments enable the device connectors to be easily integrated into your device design.



Sustainable and future-proof

Phoenix Contact is empowering sustainable products and already offers a comprehensive portfolio which is produced in accordance with future EU directives, with a reduced lead content below 0.1%. This corresponds to RoHS II without Exemption 6c.

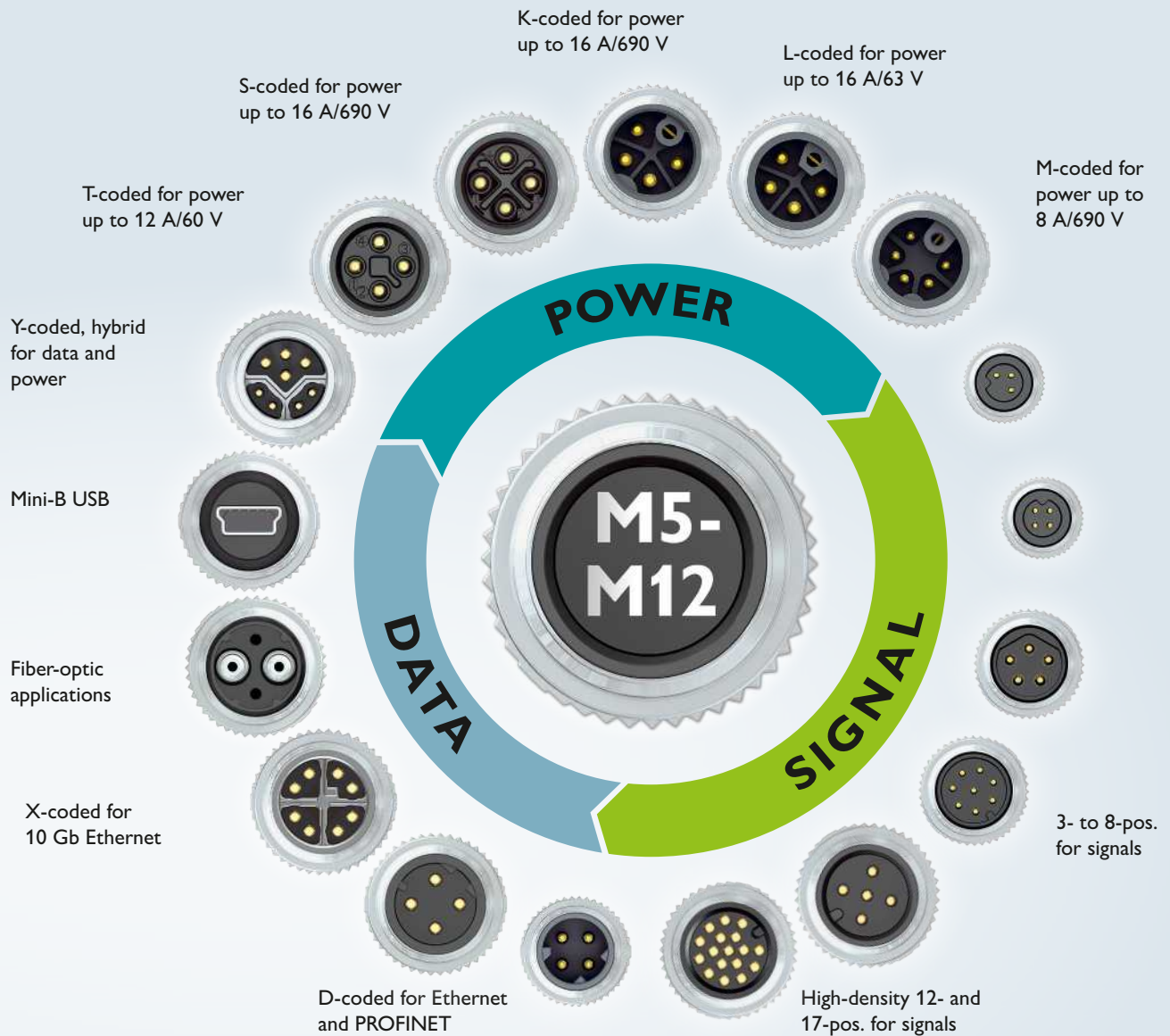
Items that comply with the future EU directive and have a maximum lead content of 0.1% can be found on our website via the standard item, using the filter “Lead content (EU-RoHS) – lead-free (Pb <0.1%)” or by entering the respective web code in the search field.

i Web code: #2904



For virtually every application

Various installation options for practical integration into your device



For high contact density
M5, M8, and M12 signal connectors
for up to 17 positions



For fast data transmission
M8 and M12 data connectors
for up to 10 Gbps



For high power
M12 power connectors
for up to 16 A and 690 V

M12 Push-Pull – the new standard in automation technology

Easy connection, fast-locking: M12 connectors with push-pull fast-locking system guarantee secure, tool-free plugging, even in confined spaces and with a high cabling density. Versions with internal locking also enable compact housing designs.



Highly future-proof

The consistently standardized push-pull product range guarantees worldwide availability.



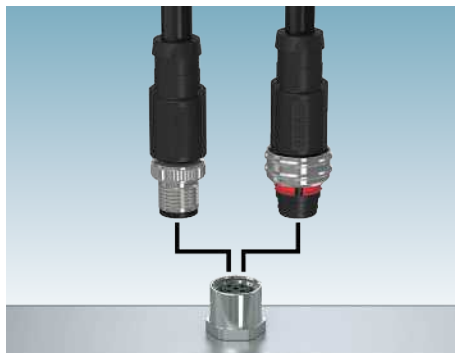
Flying leads

Establish flying leads with connectors in pin and socket versions.



More compact designs

The new M12 push-pull concept with countersunk M12 ports allows flush integration into the housing. This allows you to achieve more compact device designs.



Greater flexibility

The M12 duo contour allows for a flexible field wiring with proven M12 screw connectors or the new push-pull fast-locking system.



Plug and Produce

With the cross-manufacturer locking system, you can save up to 80% of installation time, compared to screw connection.

Device connectors with litz wire and cable connection

Device connectors with litz wires or round cables in sizes M5, M8, and M12 are a reliable alternative to permanent cable connections. The diverse housing designs from Phoenix Contact offer the right solution for every device design, and are also available with seamless shield connection as an option.



Your advantages at a glance



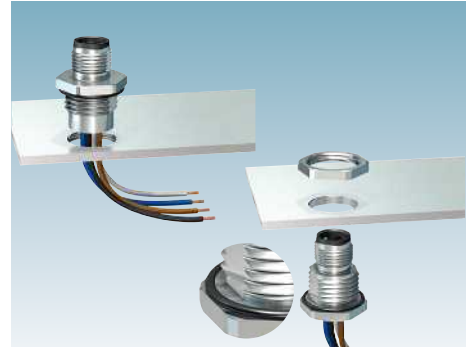
Preassembled cables

- No field assembly necessary
- Various cable lengths and assemblies



Easy positioning

- Defined cable outlet direction



Safe mounting

- XL housing versions simplify the device cutout
- Increased safety and tightness of seal with tightening limitation



Reliable seals

- Protection of device electronics when not plugged in



Reliable transmission

- 360° shield connection
- Fieldbus-specific cables



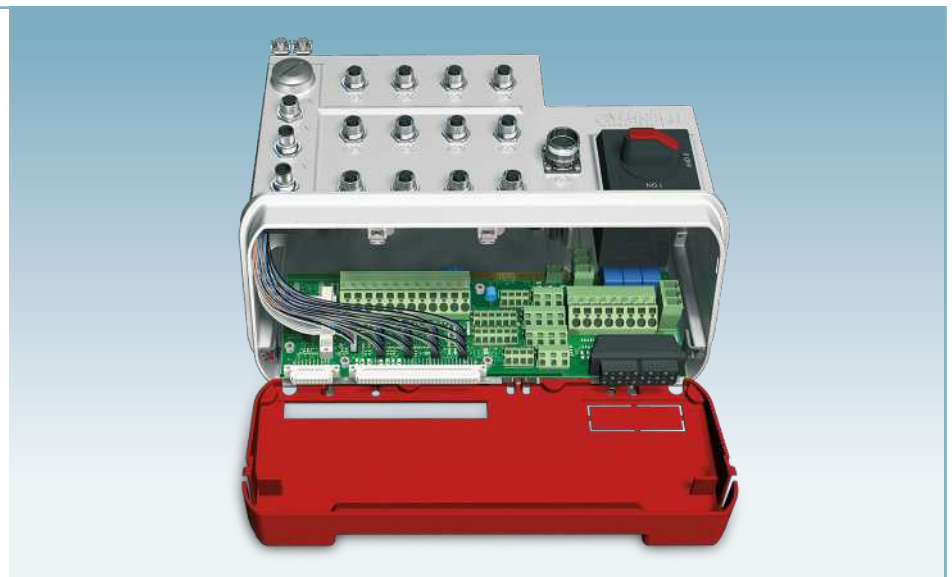
Fieldbus-specific coding

- Secure against connection errors with color and mechanical fieldbus-specific coding

Main features

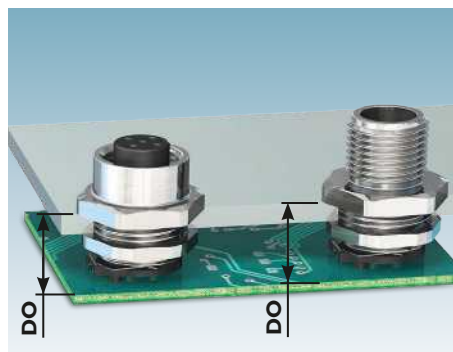
Device connection technology from Phoenix Contact for distributed modules is designed for harsh ambient conditions in industrial production processes.

- Preassembled with litz wires or cables
- Optional shield connection
- Numerous mounting types: front, rear or modular mounting
- Metric or Pg fastening thread



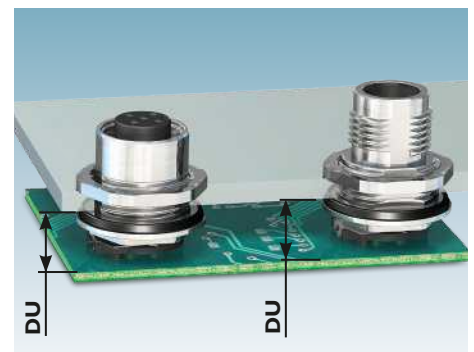
Device connectors for direct PCB mounting

Phoenix Contact offers a comprehensive range of one- and two-piece device connectors for direct PCB mounting. The connectors are suitable for wave, THR, and SMT soldering processes and provide uniform mechanical installation conditions for front and rear mounting.



Front mounting, two-piece

Distance DO: uniform installation conditions from PCB upper edge to housing front plate outer edge



Rear mounting, two-piece

Distance DU: uniform installation conditions from PCB upper edge to housing front plate inner edge

Wide range of device port solutions

Use of housing screw connections with threaded fastening, press-in contour, or for direct integration into the front panel

Space-saving construction

The M12 push-pull flush-type female connector sits flush with the housing and can be aligned more closely

Automatic pick-and-place assembly

Tape-and-reel or tray packaging

Unique tolerance compensation

M12 VARIOPORT screw connection compensates for process-related production tolerances between the housing and PCB

Reliable protection

Additional gasket for the device when not plugged in

Identical mechanical installation conditions

All numbers of positions and codings on one PCB level

Seamless shielding

Shield connection to the PCB via shield spring

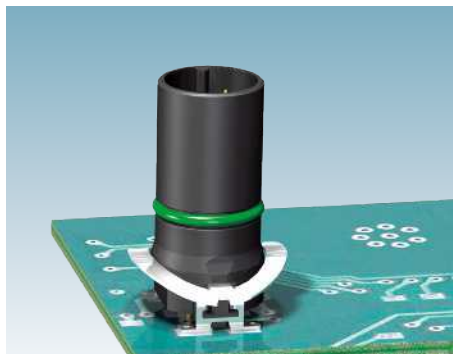
Secure power transmission

PE connection to the device housing



For through-hole reflow soldering, two-piece

4- to 17-pos. contact carriers and housing screw connections in M12



For SMT, two-piece

3- to 17-pos. contact carriers and housing screw connections in M8 and M12



For wave soldering, one- and two-piece

3- to 17-pos. versions in M5, M8, and M12

Connectors and cables for field cabling

Connect your devices quickly and safely in the field. You can wire different cable types and lengths on site with connectors designed for assembly. You have access to a comprehensive range of assembled cables for quick and convenient field cabling. Halogen-free PUR cables, which we use as standard, already meet the relevant requirements in many fields of application.



 Web code:
#0561

Main features

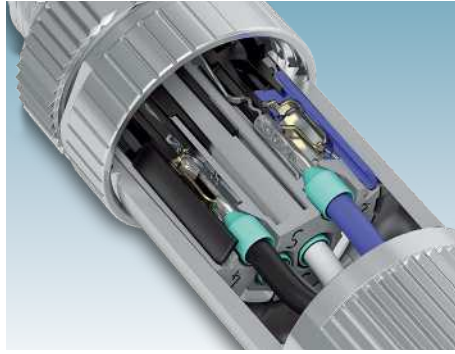
- Short connect time with push-pull fast-locking system
- Reliable 360° shielding even under extreme environmental influences
- Save space with high-position connectors
- Convenient: increased machine availability with quick and easy diagnostics
- Customer-specific assemblies and cable lengths

Your advantages at a glance



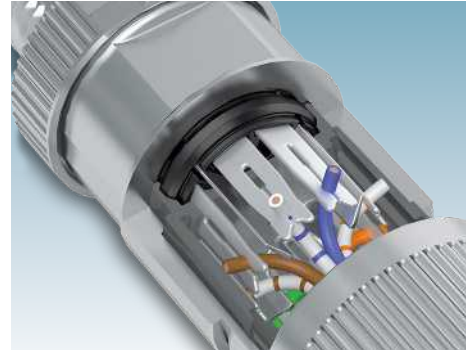
Locking with a click

Cross-manufacturer M12 push-pull locking system for signal, data, and power transmission.



Push-Lock connection

Tool-free wiring of all conductor types with direct insertion. Color-coded lever for reliable assembly.



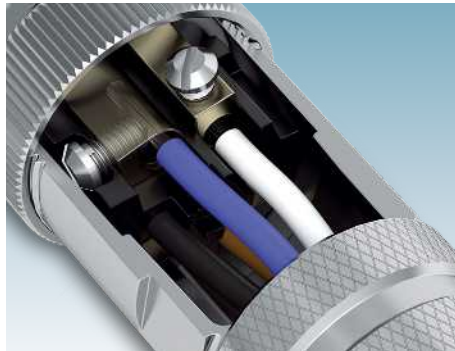
IDC insulation displacement connection

QUICKON provides the fastest connection for M12 connectors. The insulation displacement contact provides a vibration-resistant and gas-tight contact.



Crimp connection

Connection can be automated for high production volumes. The extremely compact connector is suitable for railway applications.



Screw connection

The classic solution for connection technology. You can assemble a variety of cables and cable qualities universally on site.



Pierce connection

Compact and high-position connection. The contact is made via a contact pin, which pierces the single-core wires axially.

Safe shielding

Phoenix Contact offers comprehensive shielding concepts and torsion-resistant cables for safe and reliable operation of systems and robots. The large-area, material-bonding 360° shield connection with Advanced Shielding Technology is unique on the market. Liquid metal completely encloses the cable shielding during the manufacturing process and guarantees reliable EMC protection, robustness, and improved performance.

i Web code: #2253



Page navigation

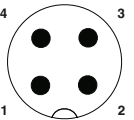
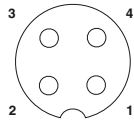
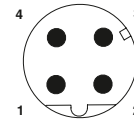
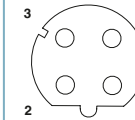
M5 to M12 circular connectors							
Design	Number of positions	3	4		5		6
	Coding	 A	  A	  D	  A	 B	 A
M12 device connectors for litz wire connection							
	Front mounting with litz wires	–	16 / 39	16	16	16	–
	Rear mounting with litz wires	–	18	18	18	18	–
	Front mounting, modular, crimp connection	–	18	18	18	18	–
	Front mounting with solder cups	–	–	–	20	–	–
	Rear mounting with solder cups	–	–	–	22	–	–
M12 device connectors with assembled cable							
	Front mounting	–	–	33	38	36	–
	Rear mounting	–	20 / 39	33	20 / 38	36	–
M12 device connectors for PCB connection							
	One-piece, front mounting	–	20	20	20	20	–
	One-piece, rear mounting	–	22 / 39	22 / 33 / 35	22 / 38	36	–
	Two-piece, for wave / THR soldering processes	–	24	24	24	24	–
	Two-piece, for SMD soldering processes	–	26	26	26	26	–
M12 connector, designed for assembly / with molded cable							
	Designed for assembly	–	46	50	46 / 47	50	–
	Plastic-molded cables	53 / 54	53 / 54	55	53 / 54	57	–
M8 device connectors with litz wires							
	Front mounting	28	28	–	–	41	28
	Rear mounting	28	28	–	–	–	28
M8 device connectors for PCB connection							
	One-piece, rear mounting	28	28	41	–	41	28
	Two-piece, for SMD soldering processes	30	30	30 / 41	–	30 / 41	30
M8 connector, designed for assembly / with molded cable							
	Designed for assembly	49	49	–	–	–	–
	Plastic-molded cables	53	53 / 55	55	–	–	–
M5 device connectors with litz wires							
	Front mounting	32	32	–	–	–	–
M5 device connectors for PCB connection							
	One-piece, rear mounting	32	32	–	–	–	–

 SIGNAL

 DATA

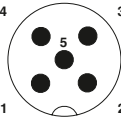
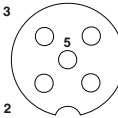
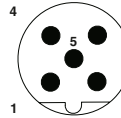
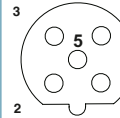
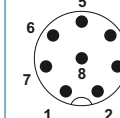
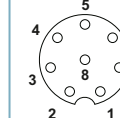
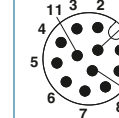
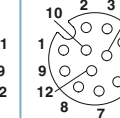
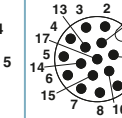
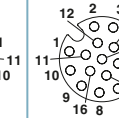
 POWER

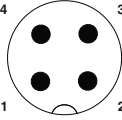
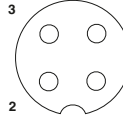
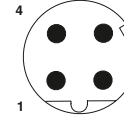
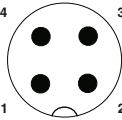
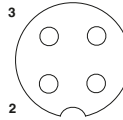
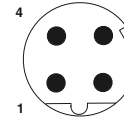
8			12	17	2+PE	3+PE	4	4+PE	4 / 4+FE	5+PE
  A	 X	 Y	 A	 A	 S	 S	 T	 K	 L	 M
16	–	–	16	16	42	42	42	42	42	42
18	–	34	18	18	42	42	42	42	42	42
18	–	–	–	–	–	42	42	–	–	–
20	–	–	–	–	–	–	–	–	–	–
22	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–
20 / 33 / 35	34	34	20	20	–	–	–	–	–	–
20	–	–	–	–	–	–	–	–	–	–
22	34	34	22	22	–	–	–	–	45	–
24	34	34	24	24	–	44	44	45	45	45
26	34	34	26	26	–	–	44	–	–	–
46 / 47	50	–	48	48	51 / 52	51 / 52	51 / 52	51 / 52	51 / 52	–
56	56	56	–	–	–	58	58	58	58	58
28	–	–	–	–	–	–	–	–	–	–
28	–	–	–	–	–	–	–	–	–	–
28	–	–	–	–	–	–	–	–	–	–
30	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–

M12 device connectors, with litz wires, front mounting		4-pos.			
 Lead-free alternative items available i Web code: #0207	Coding	A	D		
	Rated voltage	250 V	250 V		
	Rated current	4 A	4 A		
	Conductor cross-section	0.34 mm ²	0.34 mm ²		
	Assembly				
	Pin assignment	Male 	Female 	Male 	Female 
Versions with zinc die-cast housing, for screw fastening					
	Pg9	1693762	1693788	–	–
	Flat nut, Pg9				
	M16 x 1.5	1523450	1523434	1551558	1535202
	Flat nut M16 x 1.5				
	M16 x 1.5, XL versions, wrench size 19	1411577	1411568	1411578	1411569
	Flat nut M16 x 1.5				
	Push-pull, M16 x 1.5	1108117	–	1027688	1027686
	Flat nut M16 x 1.5				
	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 housing (nickel-plated), for screw fastening					
	Plastic M16 x 1.5	–	–	–	–
	Flat nut M16 x 1.5				
	Brass (nickel-plated) M20 x 1.5	1408451	1408436	–	–
	Flat nut, M20 x 1.5				
Versions with stainless steel housing (1.4404), for screw fastening					
	Pg9	1554555	1554448	–	–
	Flat nut, Pg9				
	M16 x 1.5	1405233	1458855	–	–
	Flat nut M16 x 1.5				
	Pg9, can be positioned	1554610	1554649	–	–
	M20 x 1.5	1408415	1408416	–	–

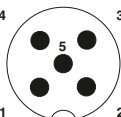
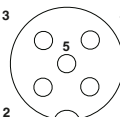
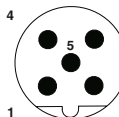
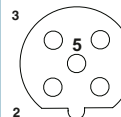
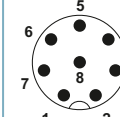
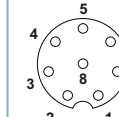
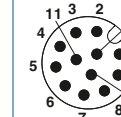
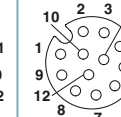
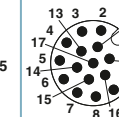
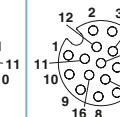
Items **in bold** feature the SPEEDCON fast-locking system and are fully compatible with the M12 standard locking system.

* No alternative items yet available with reduced lead content below 0.1%.

5-pos.				8-pos.				12-pos.				17-pos.	
A		B		A		A		A		A		A	
60 V		60 V		30 V		30 V		30 V		30 V		30 V	
4 A		4 A		2 A		1.5 A		1.5 A		1.5 A		1.5 A	
0.34 mm²		0.34 mm²		0.25 mm²		0.14 mm²		0.14 mm²		0.14 mm²		0.14 mm²	
Preassembled with 0.5 m long litz wires													
Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
													
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													
1027694	1027683	—	—	—	—	—	—	—	—	—	—	—	—
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 *	—	—	—	—	—	—	—	—	—
1640692 *													
1408446	1408454	—	—	1408442	1408453	—	—	—	—	—	—	—	—
1411242													
1554568	1699863	—	1452343	1554571	1554607	—	—	—	—	—	—	—	—
1404984													
1458868	1458871	—	—	1405221	1458842	1405238	1405242	1405243	1405244				
1404983													
1554623	1554652	—	1424023	1554636	1554665	—	—	—	—	—	—	—	—
1452097	1452107	1452084	1452097	1452107	1452110	—	—	—	—	—	—	—	—

M12 device connector, crimp connection, front mounting		4-pos.			
 Lead-free alternative items available	Web code: #0208	Coding	A	D	
		Rated voltage	250 V	250 V	
		Rated current	4 A	4 A	
		Conductor cross-section	0.34 mm ²	0.34 mm ²	
		Pin assignment	Male 	Female 	Male 
Modular versions					
	25 mm square flange, mounting holes 4 x Ø 3.2 mm				
	Preassembled contact carrier, with 0.5 m long litz wires	1440805	–	1440821	–
	Contact carrier for crimp contacts, designed for assembly ¹⁾	1440931	–	1440944	–
	Crimp contacts Ø 1.0 mm, 0.08 mm ² ... 0.5 mm ²	1452356	–	1452356	–
	Crimp contacts Ø 0.8 mm, 0.08 mm ² ... 0.34 mm ²	–	–	–	–
	Crimping tool				
Device connectors with Push-Lock connection					
	Web code: #2405	Connection cross-section	0.14 mm ² ... 0.75 mm ²	AWG 26 ... AWG 18	
		M20 fastening thread with anti-rotation protection	1139802	1139803	1139796
M12 device connectors, with litz wires, rear mounting		4-pos.			
 Lead-free alternative items available	Web code: #0209	Coding	A	D	
		Rated voltage	250 V	250 V	
		Rated current	4 A	4 A	
		Conductor cross-section	0.34 mm ²	0.34 mm ²	
		Assembly			
		Pin assignment	Male 	Female 	Male 
Versions with zinc die-cast housing, for screw fastening					
	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
	Push-pull, M16 x 1.5	1108128	–	1027691	1027670
Versions with plastic housing, for screw fastening					
	Pg9	–	–	–	–
Versions with stainless steel housing (1.4404), for screw fastening					
	Pg9	1405239	1405240	–	–

¹⁾ The information on the rated current is valid for the maximum connection cross-section. Items **in bold** feature the SPEEDCON fast-locking system and are fully compatible with the M12 standard locking system. * No alternative items yet available with reduced lead content below 0.1%.

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 mm ²		0.34 mm ²		0.25 mm ²		0.14 mm ²		0.14 mm ²	
Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
									

1419959

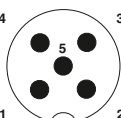
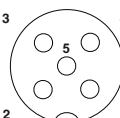
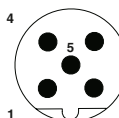
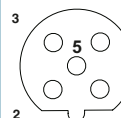
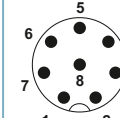
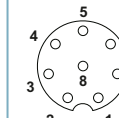
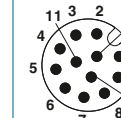
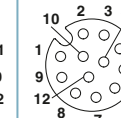
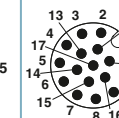
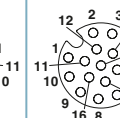
1440818	–	1440759	–	1457827	–	–	–	–	–
1419988	–	1440915	–	1440928	–	–	–	–	–
1452356	–	1452356	–	–	–	–	–	–	–
–	–	–	–	1452372	–	–	–	–	–

1212510

0.14 mm ² ... 0.75 mm ²									
1139804	1139805	–	–	–	–	–	–	–	–

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 mm ²		0.34 mm ²		0.25 mm ²		0.14 mm ²		0.14 mm ²	

Preassembled with 0.5 m long litz wires

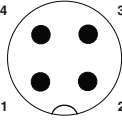
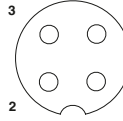
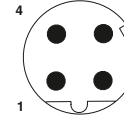
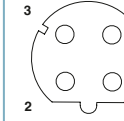
Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
									

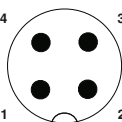
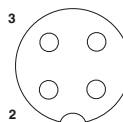
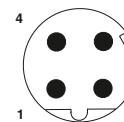
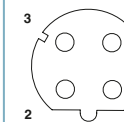
1542703	1542729	1543663	1543676	1542716	1542732	1430459	1430446	1430475	1430462
1551888	–	1551891	–	1551914	–	1437122	–	1437135	–
1419645	1419658	1419661	1419674	1419687	1419690	1419700	1419713	1419726	1419739
1411593	1411586	1411594	1411587	1411595	1411588	1411596	1411589	1411597	1411590
1027697	1027666	–	–	–	–	–	–	–	–

–	1436356 *	–	–	–	1436369 *	–	–	–	–
---	-----------	---	---	---	-----------	---	---	---	---

1554681	1554717	–	–	1554694	1554720	–	–	–	–
---------	---------	---	---	---------	---------	---	---	---	---

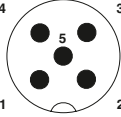
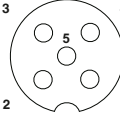
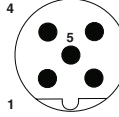
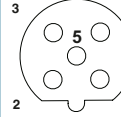
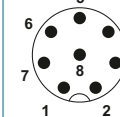
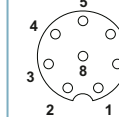
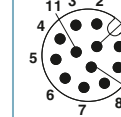
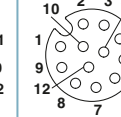
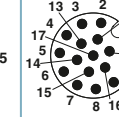
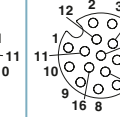
SIGNAL

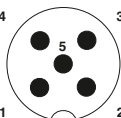
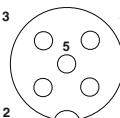
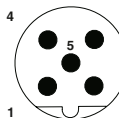
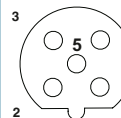
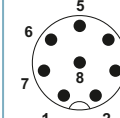
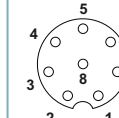
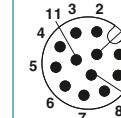
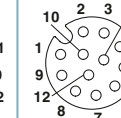
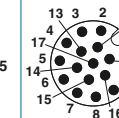
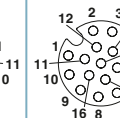
M12 device connectors, with cable, rear mounting		4-pos.			
 Web code: #0210 Lead-free alternative items available	Coding	A	D		
	Rated voltage	250 V	250 V		
	Rated current	4 A	4 A		
	Pin assignment	Male	Female	Male	Female
					
Versions for screw fastening, shielded					
	M16 x 1.5 Cable length: 1 m, PUR black	1419399	1419302	—	—
	M16 x 1.5 Cable length: 2 m, PUR black	1419386	1419315	—	—
Control cabinet feed-throughs for screw fastening					
	M16 x 1.5 Male to female	—	—	—	—
	M16 x 1.5 Female to female	—	—	—	1424326 *

M12 device connectors, solder connection, front mounting		4-pos.			
 Web code: #0212 Lead-free alternative items available	Coding	A	D		
	Rated voltage	250 V	250 V		
	Rated current	4 A	4 A		
	Pin assignment	Male	Female	Male	Female
					
Versions for PCB mounting, with torsion protection, for wave soldering processes					
	20 mm square flange, direct PCB mounting	1456417	1456420	1456394	1456404
Plastic versions, with solder cups, for screw fastening					
	M12 x 1	—	—	—	—
	M16 x 1.5	—	—	—	—

Items in **bold** feature the SPEEDCON fast-locking system and are fully compatible with the M12 standard locking system.

* No alternative items yet available with reduced lead content below 0.1%.

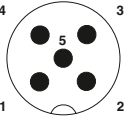
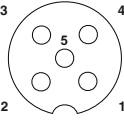
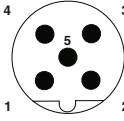
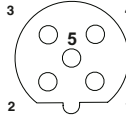
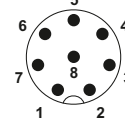
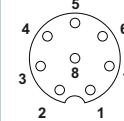
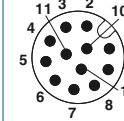
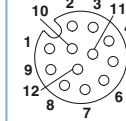
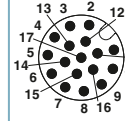
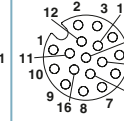
5-pos.				8-pos.		12-pos.		17-pos.	
A		B		A		A		A	
60 V		60 V		30 V		30 V		30 V	
4 A		4 A		2 A		1.5 A		1.5 A	
Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
									
1419409	1419328	—	—	1419425	1419357	1442227	1442188	1442308	1442269
1419412	1419331	—	—	1419438	1419344	1442230	1442191	1442311	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	
Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
									
1456433	1456446	1456459	1456462	1408574	1408573	—	—	—	—
1436437 *	—	—	—	1436440 *	—	—	—	—	—
1436398 *	—	—	—	1436408	—	—	—	—	—

M12 device connectors, solder connection, rear mounting, for wave soldering processes			4-pos.			
i Web code: #0213 RoHS Lead-free alternative items available	Coding		A		D	
	Rated voltage		250 V		250 V	
	Rated current		4 A		4 A	
	Pin assignment		Male	Female	Male	Female
		4 3 1 2	3 4 2 1	4 3 1 2	3 4 2 1	
Versions with brass or zinc die-cast housing, one-piece, straight, for screw fastening						
	Pg9	6 mm solder pins	1553459	1553462	1551516	1551503
		12 mm solder pins	—	1410777	1552308	1552272
	M12 x 1	6 mm solder pins	1551820	—	1551859	—
	M16 x 1.5	6 mm solder pins	1419742	1419755	1441749	1441752
	Push-pull, M16 x 1.5	6 mm solder pins	1108002	—	1027680	1027696
	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 fastening						
	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 fastening						
	Pg9		1404979	1404974	—	—
Versions with brass housing (nickel-plated), two-piece including housing, straight ¹⁾						
	Straight, shielded, for fastening in the feed-through hole		—	—	—	1534627 *
	Straight, for fastening in the feed-through hole		—	—	—	—

¹⁾ Cannot be combined with two-piece contact carriers for PCB mounting for THR, SMD or wave soldering processes.

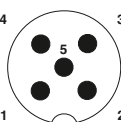
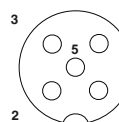
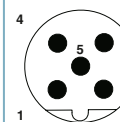
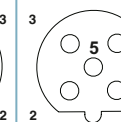
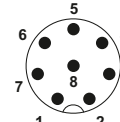
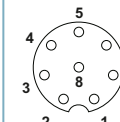
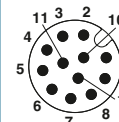
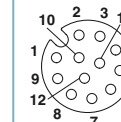
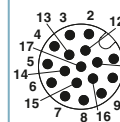
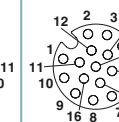
* No alternative items yet available with reduced lead content below 0.1%.

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	
Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
									
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
1027676	1027669	—	—	—	—	—	—	—	—
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 *	1421685 *	1437203 *	1437180 *	—	—	—	—	—	—
1694211 *	1694237 *	1514883 *	1515934 *	1424017 *	1556854 *	—	—	—	—

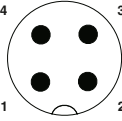
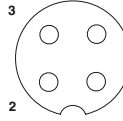
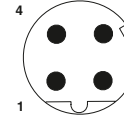
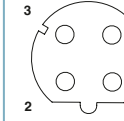
M12 device connector, solder connection, for reflow and wave soldering processes		4-pos.			
Web code: #0214 RoHS Lead-free alternative items available	Coding	A		D	
	Rated voltage	250 V		250 V	
	Rated current	4 A		4 A	
	Pin assignment	Male	Female	Male	Female
Two-piece, THR contact carriers					
	Straight, shielded, THR, tray packaging	1439939	1439955	1552214	1551451
	Straight, shielded, THR, tape-and-reel	1457500*	1457623*	1457513*	1457636*
	Straight, THR, tray packaging	1437164	1439942	—	1414071
	Straight, THR, tape-and-reel	1457490*	1457610*	—	1195616*
Two-piece, wave soldering contact carriers					
	Angled, shielded, wave soldering, blister packaging	1439887	1432444	1436673	1432457
	Angled, wave soldering, blister packaging	1436660	1436628	—	—
Two-piece, housing screw connections for THR and wave soldering contact carriers					
	Front mounting				
	Push-pull		Male M12 x 1 / Female M12 x 1		
	Screw locking mechanism		Male M12 x 1 / Female M12 x 1		
	Push-pull		Male M12 x 1 / Female M12 x 1, flat gasket		
	Push-pull		Male M14 x 1 / Female M14 x 1		
	Screw locking mechanism		Male M14 x 1 / Female M14 x 1		
	Push-pull		Female countersunk M16 x 1, flat gasket		
	Rear mounting				
	Push-pull		Male M15 x 1 / Female M16 x 1		
	Screw locking mechanism		Male M15 x 1 / Female M15 x 1		
	M16 x 1 locking nut				
	Press-in versions				
Push-pull		Male / Female			
Screw locking mechanism		Male / Female			

^{1), 2)} Distance from PCB upper edge to housing front plate inner edge: DU = ¹⁾ 6 mm ²⁾ 6.8 mm, see also page 10.

^{3), 4), 5), 6)} Distance from PCB upper edge to housing front plate outer edge: DO = ³⁾ 6 mm ⁴⁾ 7.5 mm ⁵⁾ 9 mm ⁶⁾ 18.5 mm, see also page 10.

5-pos.				8-pos.		12-pos.		17-pos.	
 A		 B		 A		 A			
60 V		60 V		30 V		30 V		30 V	
4 A		4 A		2 A		1.5 A		1.5 A	
Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
									
1432350	1432363	1552230	1551435	1557581	1551422	1442065*	1442052*	1442081*	1442078*
1457539*	1457652*	1457542*	1457665*	1457568*	1457681*	1457584*	1457704*	1457607*	1457720*
1552227	1551448	—	1414070	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	—	1436657	1436987	1436990	1424194	1424195	1424196	1424197
Male: 1454488 ⁴⁾ / Female: 1454487 ⁴⁾									
Male: 1416145 ⁴⁾ / Female: 1416144 ⁴⁾									
Male: 1454490 ³⁾ / Female: 1233779 ³⁾									
Male: 1341713 ⁵⁾ / Female: 1249211 ⁵⁾									
Male: 1417984 ⁵⁾ / Female: 1417989 ⁵⁾									
Female: 1233777 ⁶⁾									
Male: 1027661 ¹⁾ / 1454489 ²⁾ / Female: 1249212 ¹⁾ / 1233780 ²⁾									
Male: 1413997 ¹⁾ / 1413996 ²⁾ / Female: 1414004 ¹⁾ / 1414003 ²⁾									
1312511									
Male: 1454498 ⁵⁾ / Female: 1454499 ⁵⁾									
Male: 1437892 ⁵⁾ / Female: 1437889 ⁵⁾									

* Contact carrier with assembly pad.

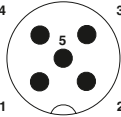
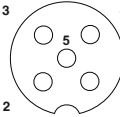
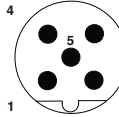
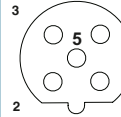
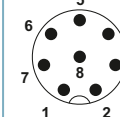
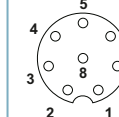
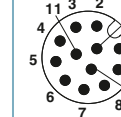
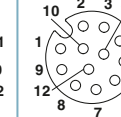
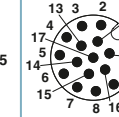
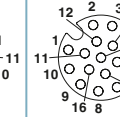
M12 device connector, solder connection, for reflow soldering processes		4-pos.			
 Web code: #0215  Lead-free alternative items available	Coding	A	D		
	Rated voltage	250 V	250 V		
	Rated current	4 A	4 A		
	Pin assignment	Male	Female	Male	Female
					
Two-piece, SMD contact carriers					
	Straight, SMD, tray packaging	1411924*	1411907	1411925*	1411912
	Straight, SMD, tape-and-reel	1411982*	1411974	1411983*	1411975
	Straight, shielded, SMD, tray packaging, additional gasket for the device when not plugged in	1411955*	1411949	1411956*	1411950
	Straight, shielded, SMD, tape-and-reel, additional gasket for the device when not plugged in	1412010*	1412004	1412011*	1412005
	Straight, SMD, tray packaging, additional gasket for the device when not plugged in	1411941*	1411935	1411942*	1411936
	Straight, SMD, tape-and-reel, additional gasket for the device when not plugged in	1411996*	1411990	1411997*	1411991
Two-piece, housing screw connections for SMD contact carriers					
	Front mounting				
	Push-pull	Male M14 x 1 / Female M16 x 1			
	Screw locking mechanism	Male M14 x 1 / Female M14 x 1			
	Push-pull	Female countersunk M16 x 1, flat gasket			
	Rear mounting				
	Push-pull	Male M15 x 1 / Female M16 x 1			
	Screw locking mechanism	Male M15 x 1 / Female M15 x 1			
	Press-in versions				
	Push-pull	Male / Female			
	Screw locking mechanism	Male / Female			

¹⁾ Not with additional gasket for the device when not plugged in.

²⁾ Distance from PCB upper edge to housing front plate inner edge: DU = 6 mm, see also page 10.

³⁾ Distance from PCB upper edge to housing front plate outer edge: DO = 9 mm, see also page 10.

⁴⁾ Distance from PCB upper edge to housing front plate outer edge: DO = 17 mm, see also page 10.

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	
Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
									
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*	—
Male: 1107999 ³⁾ / Female: 1454494 ³⁾									
Male: 1412078 ³⁾ / Female: 1412079 ³⁾									
Female: 1454497 ⁴⁾									
1412077									
Male: 1107993 ²⁾ / Female: 1454492 ²⁾									
Male: 1414000 ²⁾ / Female: 1414021 ²⁾									
Male: 1454496 ³⁾ / Female: 1412081 ³⁾									
Male: 1412080 ³⁾ / Female: 1412081 ³⁾									

* Contact carrier with assembly pad.

M8 device connectors, with litz wires		3-pos.	
Web code: #0216 RoHS	Coding	A	
	Rated voltage	50 V AC / 60 V DC	
	Rated current	4 A	
	Conductor cross-section	0.25 mm ²	
	Assembly		
	Pin assignment	Male	Female
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 *
M8 device connector, solder connection, for wave soldering processes		3-pos.	
Web code: #0218 RoHS	Coding	A	
	Rated voltage	50 V AC / 60 V DC	
	Rated current	4 A	
	Pin assignment	Male	Female
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 *

* No alternative items yet available with reduced lead content below 0.1%.

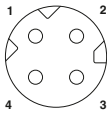
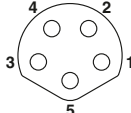
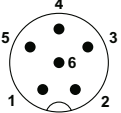
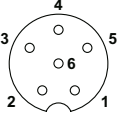
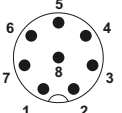
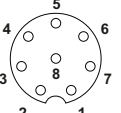
4-pos.		6-pos.		8-pos.	
■ A		■ A		■ A	
50 V AC / 60 V DC		30 V AC / 30 V DC		30 V AC / 30 V DC	
4 A		2 A		1.5 A	
0.25 mm ²		0.14 mm ²		0.14 mm ²	
Preassembled with 0.5 m long litz wires					
Male	Female	Male	Female	Male	Female
1500347 *	1500363 *	1542664 *	1542677 *	—	—
1504071 *					
—	—	—	—	1424232 *	1424231 *
1453481 *	—	1453494 *	—	1424230 *	—
—	1456093 *	—	1456103 *	—	—
—	1453452 *	—	1453465 *	—	—
4-pos.		6-pos.		8-pos.	
■ A		■ A		■ A	
50 V AC / 60 V DC		30 V AC / 30 V DC		30 V AC / 30 V DC	
4 A		2 A		1.5 A	
Male	Female	Male	Female	Male	Female
1694347 *	—	1436521 *	—	1424238 *	—
—	1694376 *	—	1436534 *	—	1424237 *
1456019 *	—	1456022 *	—	1424236 *	—
1456048 *	—	1424244 *	—	—	—
—	1456129 *	—	1456132 *	—	1424235 *
—	1456158 *	—	1424243 *	—	—
—	1524789 *	—	—	—	—
1440096 *	1526169 *	—	—	—	—

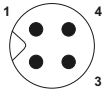
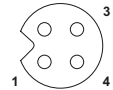
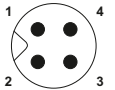
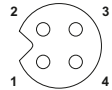
M8 device connector, solder connection, for reflow soldering processes		3-pos.		4-pos.	
i Web code: #0219 RoHS Lead-free alternative items available	Coding	A		A	
	Rated voltage	50 V AC / 60 V DC		50 V AC / 60 V DC	
	Rated current	4 A		4 A	
	Pin assignment	Male	Female	Male	Female
Two-piece, SMD contact carriers					
	Straight, SMD, tray packaging	1412225*	1412220	1412226*	1412221
	Straight, SMD, tape-and-reel	1412248*	1412243	1412249*	1412244
	Straight, shielded, SMD, tray packaging, additional gasket for the device when not plugged in	1412240*	1412235	1412241*	1412236
	Straight, shielded, SMD, tape-and-reel, additional gasket for the device when not plugged in	1412263*	1412257	1412264*	1412258
	Straight, SMD, tray packaging, additional gasket for the device when not plugged in	1412233*	1412227	1412234*	1412228
	Straight, SMD, tape-and-reel, additional gasket for the device when not plugged in	1412255*	1412250	1412256*	1412251
Two-piece, housing screw connections for SMD contact carriers					
	Screw versions, rear mounting	M12 x 1 screw fastening			
	Screw versions, front mounting	M10 x 0.75 screw fastening			
	Flat nut, M10 x 0.75				
	Press-in versions, front mounting				

¹⁾ Distance from PCB upper edge to housing front plate inner edge: DU = 6 mm, see also page 10.

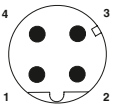
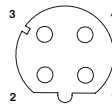
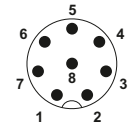
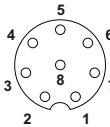
²⁾ Distance from PCB upper edge to housing front plate outer edge: DO = 9 mm, see also page 10.

* Contact carrier with assembly pad.

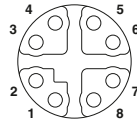
4-pos.	5-pos.	6-pos.		8-pos.	
 D	 B	 A		 A	
60 V AC/DC	30 V AC/DC	30 V AC / 30 V DC		30 V AC / 30 V DC	
4 A	3 A	2 A		1.5 A	
Female	Female	Male	Female	Male	Female
					
–	1412222	–	1412223	–	1412224
1068453	1412245	–	1412246	–	1412247
–	1412237	–	1412238	–	1412239
1068454	1412259	–	1412261	–	1412262
–	1412229	–	1412230	–	1412232
1163177	1412252	–	1412253	–	1412254
Male: 1412505 ¹⁾ / Female: 1412506 ¹⁾					
Male: 1412502 ²⁾ / Female: 1412504 ²⁾					
1412508					
Male: 1412500 ²⁾ / Female: 1412501 ²⁾					

M5 device connector		3-pos.		4-pos.	
i Web code: #0220 RoHS	Coding	A		A	
	Rated voltage	60 V		60 V	
	Rated current	1 A		1 A	
	Conductor cross-section	0.14 mm ²		0.14 mm ²	
	Pin assignment	Male	Female	Male	Female
					
Front mounting, preassembled 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 *			

* No alternative items yet available with reduced lead content below 0.1%.

M12 device connectors for networks			4-pos.		8-pos.		
Web code: #0222 RoHS Lead-free alternative items available	Coding		D		A		
	Pin assignment		Male	Female	Male	Female	
							
Front mounting, with assembled cable							
Ethernet		M16 x 1.5, can be positioned, water blue, cable type 93E	2 m	–	1405837	–	–
Rear 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 mounting, for wave soldering processes							
Ethernet		M16 x 1.5, one-piece, contact carrier, water blue		1456514	1456527	1456530	1456543
Rear mounting, with assembled cable							
 	Pg9, 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	5 m	–	1416263	–	–	
Rear mounting, for wave soldering processes							
 	M16 x 1.5, one-piece, contact carrier, green		1456556	1456569	–	–	

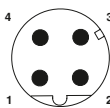
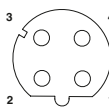
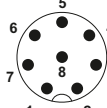
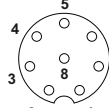
For additional 4-pos. D-coded and 8-pos. A-coded connectors, see Signal – M12 section from page 16.

M12 device connectors for networks		8-pos.		8-pos.	
Web code: #0224 RoHS Lead-free alternative items available	Coding	X (CAT6 _A)		Y (hybrid)	
	Pin assignment	Female		Female	
					
Rear mounting, with assembled cable					
CAT6A 10 Gigabit 	Ethernet	M16 x 1.5, water blue, cable type 94F	0.5 m	1424135	—
			1 m	1424148	—
			2 m	1424151	—
			5 m	1424164	—
Hybrid 	Hybrid	M16 x 1.5, black, cable type 94H	0.5 m	—	1407504
			1 m	—	1407505
			2 m	—	1407506
			5 m	—	1407507
Rear mounting, preassembled with 0.5 m long litz wires					
Hybrid 	Hybrid	M16 x 1.5	—	—	1407618
Rear mounting, for wave soldering processes					
CAT6A 10 Gigabit 	Ethernet Hybrid	M16 x 1.5, one-piece, wave soldering	1424177	—	1407503
		Pg9, one-piece, wave soldering	1404741	—	—
Two-piece, contact carriers for wave and reflow soldering processes					
CAT6A 10 Gigabit 	Ethernet	Straight, shielded, THR, blister packaging	1402457	—	—
		Straight, shielded, THR, tape-and-reel	1413446*	—	—
		Straight, shielded, SMD, tray packaging	1411964*	—	—
		Straight, shielded, SMD, tape-and-reel	1081252*	—	—
		Angled, shielded, wave soldering	1424180	—	—
Hybrid 	Hybrid	Straight, shielded, THR, blister packaging	—	—	1405225
		Straight, shielded, THR, tape-and-reel	—	—	1413445*
		Straight, shielded, SMD, tray packaging	—	—	1411965*
		Straight, shielded, SMD, tape-and-reel	—	—	1069566*
		Angled, shielded, wave soldering	—	—	1424193

Housing screw connections for THR and wave soldering contact carriers, see page 24.

Housing screw connections for SMD contact carriers, see page 26.

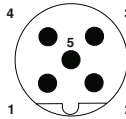
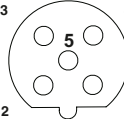
* Contact carriers with assembly pad.

M12 device connectors for networks			4-pos.		8-pos.	
Web code: #0226 RoHS Lead-free alternative items available	Coding		D		A	
	Pin assignment		Male	Female	Male	Female
						
Rear mounting, with assembled cable						
 the automation bus 	M16 x 1.5, red, cable type 93K	0.5 m	1419158	1419154	—	—
		1 m	1419159	1419155	—	—
		2 m	1419160	1419156	—	—
		5 m	1419161	1419157	—	—
Rear mounting, for wave soldering processes						
 the automation bus 	M16 x 1.5, one-piece, contact carrier, red		1457979	1457966	—	—
Rear mounting, with assembled cable						
 	M16 x 1.5, green, cable type 93B	0.5 m	1419138	1419134	—	—
		1 m	1419139	1419135	—	—
		2 m	1419140	1419136	—	—
		5 m	1419141	1419137	—	—
Rear mounting, for wave soldering processes						
 	M16 x 1.5, one-piece, contact carrier, green		1456556	1456569	—	—
Rear mounting, with assembled cable						
 	M16 x 1.5, black, cable type 970, 6-wire	0.5 m	—	—	1429059	1429091
		1 m	—	—	1429062	1429101
		2 m	—	—	1429075	1429114
		5 m	—	—	1429088	1429127

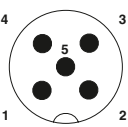
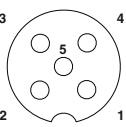
For additional 4-pos. D-coded and 8-pos. A-coded connectors, see Signal – M12 section from page 16.

M12 device connectors for fieldbuses			5-pos.	
Web code: #0229 RoHS Lead-free alternative items available <td>Coding</td> <td colspan="3"> B </td>	Coding	B		
	Pin assignment	Male	Female	
		4 3 5 1 2	3 4 5 2 1	
Front mounting, with assembled cable				
PROFI BUS	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 mounting, with assembled cable				
PROFI BUS	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 mounting, for wave soldering processes				
PROFI BUS	M16 x 1.5, one-piece, contact carrier, violet	1456475	1456488	

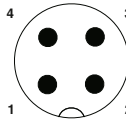
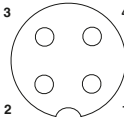
For additional 5-pos., B-coded connectors, see Signal – M12 section, from page 16.

M12 device connectors for fieldbuses			5-pos.		
Web code: #0230 RoHS Lead-free alternative items available	Coding	B			
	Pin assignment	Male		Female	
					
Front 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 mounting, with assembled cable					
 	Pg9, green, cable type 900	0.5 m	1437643	1437601	
		1 m	1437656	1437614	
		2 m	1437669	1437627	
		5 m	—	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 mounting, for wave soldering processes					
 	M16 x 1.5, one-piece, contact carrier, green		1456572	1456585	
	M16 x 1.5 EMC nut	1440164			

For additional 5-pos., B-coded connectors, see Signal – M12 section, from page 16.

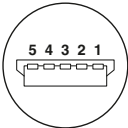
M12 device connectors for fieldbuses			5-pos.	
Web code: #0231 RoHS Lead-free alternative items available	Coding	A		
	Pin assignment	Male	Female	
				
Front mounting, with assembled cable				
	M16 x 1.5, violet, cable type 920	0.5 m	1525623	1525678
		1 m	1525636	1525681
		2 m	1525649	1525694
		5 m	1525652	1525704
Rear 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 mounting, for wave soldering processes				
	M16 x 1.5, one-piece, contact carrier, violet	1456491	1456501	
	M16 x 1.5 EMC nut	1440164		
	Pg9, one-piece, stainless steel (1.4404)	1554746	1554733	
	M16 x 1.5, one-piece, contact carrier, blue	1457953	1457940	

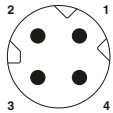
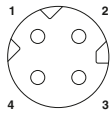
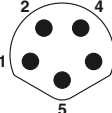
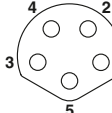
For additional 5-pos., A-coded connectors, see Signal – M12 section, from page 16.

M12 device connectors for fieldbuses			4-pos.	
 Web code: #0232  Lead-free alternative items available	Coding	A		
	Pin assignment	Male	Female	
				
Rear mounting, with assembled cable				
 	M16 x 1.5, red, cable type 990	0.5 m	–	1559819
		1 m	–	1559822
		2 m	–	1559835
		5 m	–	1559848
Rear mounting, for wave soldering processes				
 	M16 x 1.5, one-piece, contact carrier, green	1457856	1457869	
Front mounting, preassembled with 0.5 m long litz wires				
 	Pg9, shielded	1431432	1431429	
	Flat nut, Pg9	1504084		
Rear mounting, for wave soldering processes, shielded				
	M16 x 1.5, one-piece, contact carrier, yellow	1457872	–	

For additional 4-pos., A-coded connectors, see Signal – M12 section, from page 16.

DATA

M12 device connectors for USB		USB
i Web code: #0235 RoHS Lead-free alternative items available	Pin assignment	
Rear mounting, for wave soldering processes		
	M12 x 1, Mini-B USB 2.0	1440711

M8 device connectors for fieldbuses		4-pos.		5-pos.	
i Web code: #0237  Lead-free alternative items available	Coding	D		B	
	Pin assignment	Male	Female	Male	Female
					
Front mounting, preassembled with 0.5 m long litz wires					
DeviceNet 					
M10 fastening thread		—	—	1424234 *	1424233 *
Rear mounting, for wave soldering processes					
PROFI NET Ethernet DeviceNet 	M8 fastening thread, straight, shielded	1253761 *	—	1424242 *	—
	M8 fastening thread, angled, shielded	1253764 *	—	1424240 *	—
	M10 fastening thread, straight, shielded	—	1253763 *	—	1424241 *
	M10 fastening thread, angled, shielded	—	1253765 *	—	1424239 *
Two-piece, SMD contact carriers for reflow soldering processes					
DeviceNet 	Straight, SMD, tray packaging	—	—	—	1412222
	Straight, SMD, tape-and-reel	—	—	—	1412245
	Straight, SMD, tape-and-reel, additional gasket for the device when not plugged in shielded	—	—	—	1412252
		—	—	—	1412259
	Straight, SMD, tray packaging, additional gasket for the device when not plugged in shielded	—	—	—	1412229
		—	—	—	1412237
PROFI NET Ethernet 	Straight, SMD, tape-and-reel	—	1068453	—	—
	Straight, SMD, tape-and-reel, additional gasket for the device when not plugged in shielded	—	1068454	—	—

Housing screw connections for SMD contact carriers, see page 30

* No alternative items yet available with reduced lead content below 0.1%.

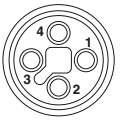
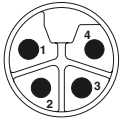
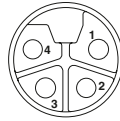
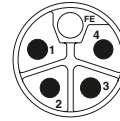
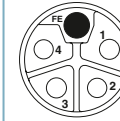
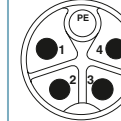
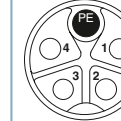
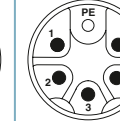
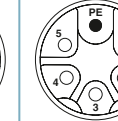
POWER

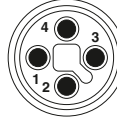
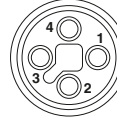
M12 device connectors up to 16 A / 630 V		3(2+PE)-pos.		4 (3+PE)-pos.	
 Web code: #0238  Lead-free alternative items available	Coding	 S		 S	
	Rated voltage	630 V		630 V	
	Rated current	16 A		12 A	
	Conductor cross-section	AWG 16		AWG 16	
	Pin assignment	Male	Female	Male	Female
					
Front mounting, preassembled with 0.2 / 0.5 m long litz wires					
	M16 x 1.5 fastening thread, one-piece	1411655 ¹⁾	1411654 ¹⁾	1424139 ¹⁾	1424137 ¹⁾
	Flat nut M16 x 1.5	1504097			
	M16 x 1.5 fastening thread, XL versions, wrench size 19 AWG 16 litz wires 2.5 mm ² litz wires PROFINET-specified, AWG 16 litz wires PROFINET-specified, 2.5 mm ² litz wires	—	—	1411607 ¹⁾	1411605 ¹⁾
		—	—	—	—
		—	—	—	—
		—	—	—	—
	Flat nut M16 x 1.5	—	—		
	25 mm square flange, modular, mounting holes 4 x Ø 2.7 mm	—	—	—	—
	Preassembled contact carrier, modular	—	—	—	—
Rear mounting, preassembled with 0.2 / 0.5 m long litz wires					
	M16 x 1.5 fastening thread, one-piece	1411653 ¹⁾	1411652 ¹⁾	1424132 ¹⁾	1424133 ¹⁾
	M16 x 1.5 fastening thread, XL versions, wrench size 19 AWG 16 litz wires 2.5 mm ² litz wires PROFINET-specified, AWG 16 litz wires PROFINET-specified, 2.5 mm ² litz wires	—	—	1411603 ¹⁾	1411598 ¹⁾
		—	—	—	—
		—	—	—	—
		—	—	—	—

L-coding, 4+FE-pos.: FE not connected to accessible metal parts, no protective function

¹⁾ With 0.5 m long litz wires ²⁾ With 0.2 m long litz wires

* Deviation from the standard color of black: gray contact carrier

4-pos.				5(4+FE)-pos.		5(4+PE)-pos.		6(5+PE)-pos.	
 T		 L		 L		 K		 M	
63 V		63 V		63 V		630 V		630 V	
12 A		12 A / 16 A		12 A / 16 A		12 A / 16 A		8 A	
AWG 16		AWG 16 / 2.5 mm²		AWG 16 / 2.5 mm²		AWG 16 / 2.5 mm²		AWG 16	
Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
									
1424140 ¹⁾		1424138 ¹⁾		—	—	—	—	—	—
		—	—	—	—	—	—	—	—
1411608 ¹⁾		1411606 ¹⁾		—	—	1425635 ²⁾	1425636 ²⁾	1415300 ²⁾	1415301 ²⁾
—	—	—	—	1415295 ²⁾	1415296 ²⁾	1415291 ²⁾	1415292 ²⁾	—	—
—	—	1425631 ²⁾	1425632 ²⁾	1425627 ²⁾ *	1425628 ²⁾ *	—	—	—	—
—	—	1425586 ²⁾	1425587 ²⁾	1425582 ²⁾ *	1425583 ²⁾ *	—	—	—	—
1504097									
1424131	—	—	—	—	—	—	—	—	—
1424130 ¹⁾	—	—	—	—	—	—	—	—	—
1424136 ¹⁾	1424134 ¹⁾	—	—	—	—	—	—	—	—
1411604 ¹⁾	1411599 ¹⁾	—	—	—	—	1425637 ²⁾	1425638 ²⁾	1415302 ²⁾	1415303 ²⁾
—	—	—	—	1415297 ²⁾	1415299 ²⁾	1415293 ²⁾	1415294 ²⁾	—	—
—	—	1425633 ²⁾	1425634 ²⁾	1425629 ²⁾ *	1425630 ²⁾ *	—	—	—	—
—	—	1425588 ²⁾	1425589 ²⁾	1425584 ²⁾ *	1425585 ²⁾ *	—	—	—	—

M12 device connectors up to 16 A / 630 V		4 (3+PE)-pos.		4-pos.	
 Web code: #0240  Lead-free alternative items available	Coding	 S		 T	
	Rated voltage	630 V		63 V	
	Rated current	12 A		12 A	
	Pin assignment	Male	Female	Male	Female
					
Two-piece, THR contact carriers					
	Straight, THR, blister packaging	1406410	1406409	1406396	1406411
	Straight, THR, tape-and-reel	1418343	1418344	1418339 *	1418340 *
	Straight, shielded, THR, blister packaging	—	—	1406397	1406412
	Straight, shielded, THR, tape-and-reel	—	—	1418341 *	1418342 *
Two-piece, SMD contact carriers					
	Straight, SMD, tray packaging	—	—	1411931 *	1411918
	Straight, SMD, tape-and-reel	—	—	1411989 *	1411981
	Straight, shielded, SMD, tray packaging	—	—	—	1411967
	Straight, shielded, SMD, tape-and-reel	—	—	—	1412019
	Straight, SMD, tray packaging, additional gasket for the device when not plugged in	—	—	1411948 *	—
	Straight, SMD, tape-and-reel, additional gasket for the device when not plugged in	—	—	1412003 *	—
	Straight, shielded, SMD, tray packaging, additional gasket for the device when not plugged in	—	—	1411962 *	—
	Straight, shielded, SMD, tape-and-reel, additional gasket for the device when not plugged in	—	—	1412017 *	—

Housing screw connections for S- and T-coded THR contact carriers, see page 24.

Housing screw connections for T-coded SMD contact carriers, see page 26.

* Contact carriers with assembly pad.

M12 device connectors up to 16 A / 630 V		4-pos.		5(4+FE)-pos.		5(4+PE)-pos.		6(5+PE)-pos.	
Web code: #0240 RoHS Lead-free alternative items available	Coding	L		L		K		M	
	Rated voltage	63 V		63 V		630 V		630 V	
	Rated current	16 A		16 A		16 A		8 A	
	Pin assignment	Male	Female	Male	Female	Male	Female	Male	Female
One-piece, wave soldering, rear / screw mounting									
PROFINET	M16 x 1.5, XL versions, wrench size 19	—	—	1415337	1415338	—	—	—	—
	PROFINET-specified	1425592	1425593	1425590 ³⁾	1425591 ³⁾	—	—	—	—
Control cabinet feed-through, rear / screw mounting									
PROFINET	M16 x 1.5 Male to female PROFINET-specified	—	—	1456298 ³⁾		—	—	—	—
Two-piece, THR contact carriers									
PROFINET	Straight, THR, tray packaging *	—	—	1420817	1420818	1420819	1420821	1420822	1420823
	PROFINET-specified	1425603	1425604	1425594 ³⁾	1425595 ³⁾	—	—	—	—
	Straight, THR, tape-and-reel *	—	—	1420828	1420829	1420830	1420831	1420832	1420833
	PROFINET-specified	1425605	1425606	1425599 ³⁾	1425600 ³⁾	—	—	—	—
PROFINET	Straight, shielded, THR, tray packaging *	—	—	1421314	1421315	—	—	—	—
	PROFINET-specified	1425639	1425640	1425597 ³⁾	1425598 ³⁾	—	—	—	—
	Straight, shielded, THR, tape-and-reel *	—	—	1421317	1421318	—	—	—	—
	PROFINET-specified	1425641	1425642	1425601 ³⁾	1425602 ³⁾	—	—	—	—
Two-piece, housing screw connections for K-, L-, and M-coded THR contact carriers									
	Front mounting								
	Push-pull	Male M14 x 1 / Female M14 x 1				Male: 1108115 ²⁾ / Female: 1249213 ²⁾			
	Screw locking	Male M14 x 1 / Female M14 x 1				Male: 1420824 ²⁾ / Female: 1420825 ²⁾			
	Push-pull	Female countersunk M16 x 1				Female: 1454491 ⁴⁾			
	Flat nut M14 x 1	1412077							
	Rear mounting								
	Push-pull	Male M15 x 1 / Female M16 x 1				Male: 1108101 ¹⁾ / Female: 1249217 ¹⁾			
	Screw locking	Male M15 x 1 / Female M15 x 1				Male: 1420826 ¹⁾ / Female: 1420827 ¹⁾			

K- and M-coding: PE applied to housing.

L-coding, 4+FE-pos.: FE applied separately to the PCB, not connected to accessible metal parts, no protective function.

* Contact carrier with assembly pad.

¹⁾ Distance from PCB upper edge to housing front plate inner edge: DU= 6 mm, see also page 10.

²⁾ / ⁴⁾ Distance from PCB upper edge to housing front plate outer edge: ²⁾ DO= 9 mm, ⁴⁾ DO= 18.5 mm, see also page 10.

³⁾ Deviation from the standard color of black: gray contact carrier

M12 connector, designed for assembly			4-pos.		5-pos.		8-pos.	
i Web code: #0242 RoHS Lead-free items available Coding Design Male Female Male Female Male Female								
Push-Lock connection, conductor cross-section: 0.14 mm² ... 0.75 mm²								
	A	Straight	1424657	1424655	1424649	1424652	–	–
		Angled	1424654	1424656	1424651	1424653	–	–
Push-Lock connection, conductor cross-section: 0.14 mm² ... 0.75 mm², shielded								
	A	Straight	1424666	1424668	1424658	1424660	–	–
		Angled	1424667	1424669	1424659	1424661	–	–
	B	Straight	–	–	1424662	1424664	–	–
		Angled	–	–	1424663	1424665	–	–
Push-Lock connection, conductor cross-section: 0.14 mm² ... 0.75 mm², with push-pull internal locking								
new 	A	Straight	1438146	1438151	1438156	1438159	–	–
		Angled	1438148	1438155	1438158	1438162	–	–
Push-Lock connection, conductor cross-section: 0.14 mm² ... 0.75 mm², shielded, with push-pull internal locking								
new 	A	Straight	1438165	1438169	1438175	1438180	–	–
		Angled	1438168	1438172	1438179	1438181	–	–
IDC connection, conductor cross-section: 0.14 mm² ... 0.34 mm²								
	A	Straight	1641691	1641688	–	–	–	–
IDC connection, conductor cross-section: 0.14 mm² ... 0.5 / 0.75 mm²								
	A	Straight	–	–	1414600	1414601	1424433	1424434
IDC connection, conductor cross-section: 0.34 mm² ... 0.75 mm²								
	A	Straight	1641785	1641772	–	–	–	–
IDC connection, conductor cross-section: 0.14 mm² ... 0.5 / 0.75 mm², shielded								
	A	Straight	1413993	1413994	1413991	1413992	1414610	1414611

M12 connector, designed for assembly			4-pos.		5-pos.		8-pos.	

* No items yet available with reduced lead content below 0.1%.

SIGNAL

M12 connectors designed for assembly, high-position			12-pos.		17-pos.			
i Web code: #0245 RoHS Lead-free items available								
	Coding	Design	Male	Female	Male	Female		
Piercecon® connection, conductor cross-section: 0.14 mm²								
	A	Straight	1559592 *	1559631	1559602 *	1559644		
Solder connection, conductor cross-section: 0.08 mm² ... 0.25 mm², shielded								
	A	Straight	1404410 *	1404411 *	—	—		
		Angled	1404412 *	1404413 *	—	—		

* No items yet available with reduced lead content below 0.1%.

Signal – conductor connectors with IDC		3-pos.	4-pos.	5-pos.	8-pos.
 Web code: #0243	Conductor cross-section				
	0.14 mm² ... 0.34 mm², unshielded	—	1641879	—	—
	0.34 mm² ... 0.75 mm², unshielded	—	1642140	—	—
	0.5 mm² ... 1.5 mm², unshielded	1414702	1414698	1414742	
	0.14 mm² ... 0.75 mm², shielded	—	1414418	1414417	1414612

* No items yet available with reduced lead content below 0.1%.

M8 connector, designed for assembly			3-pos.		4-pos.	
i Web code: #0246 RoHS Lead-free items available Coding Design			Male	Female	Male	Female
IDC connection, conductor cross-section: 0.08 mm² ... 0.25 mm²						
	A	Straight	1441008	1441040	1441011	1441053
IDC connection, conductor cross-section: 0.25 mm² ... 0.5 mm²						
	A	Straight	1441024	1441066	1441037	1441079
Screw connection, conductor cross-section: 0.14 mm² ... 0.5 mm²						
	A	Straight	1501252 *	1506888 *	1501265 *	1506891 *
		Angled	1407583 *	1407582 *	1407585 *	1407584 *
Screw connection, conductor cross-section: 0.14 mm² ... 0.5 mm², shielded						
	A	Straight	1542884 *	1542907 *	1542897 *	1542910 *
Solder connection, conductor cross-section: 0.08 mm² ... 0.25 mm²						
	A	Straight	1681156 *	1681172 *	1681169 *	1681185 *
		Angled	1699902 *	1529399 *	1554209 *	1513444 *
Solder connection, conductor cross-section: 0.08 mm² ... 0.25 mm², shielded						
	A	Straight	1506901 *	1506927 *	1506914 *	1506930 *
		Angled	1436453 *	1436479 *	1436466 *	1436482 *

* No items yet available with reduced lead content below 0.1%.

M12 connector, designed for assembly				4-pos.		5-pos.		8-pos.	
<									

* No items yet available with reduced lead content below 0.1%.

Data – M12 connector, designed for assembly				4-pos.		5-pos.		8-pos.				
Web code: #0249 RoHS Lead-free items available				Fieldbuses / networks	Coding	Design	Male	Female	Male	Female	Male	Female
Crimp connection, shielded, with push-pull external locking												
	PROFINET		Straight	1021830	1021832	–	–	–	–			
			Angled	1021831	1021834	–	–	–	–			
	PROFINET CAT6 _A		Straight	–	–	–	–	1021783	–			
			Angled	–	–	–	–	1021784	–			
	Crimp contacts	0.14 mm² ... 0.34 mm²		1064040	1064041	–	–	1423643	–			
		0.34 mm² ... 1.0 mm²		1423645	1423646	–	–	–	–			
Piercecon® connection, shielded												
	CAT6 _A		Straight	–	–	–	–	1417430	–			
			Angled	–	–	–	–	1417443	–			

* No items yet available with reduced lead content below 0.1%.

Data – conductor connectors with IDC, shielded		3-pos.	4-pos.		8-pos.
i Web code: #0249 	Fieldbuses / networks	PROFIBUS	PROFINET	Ethernet	CAT6 _A
	Conductor cross-section	0.25 mm ² ... 0.75 mm ²	0.14 mm ² ... 0.5 mm ²	0.14 mm ² ... 0.5 mm ²	0.14 mm ² ... 0.34 mm ²
		1420426	1414416	1414415	1414412

Power – M12 connector, designed for assembly			2+PE-pos.		3+PE-pos.		4+PE-pos.	
i Web code: #0252	Coding	Design	Male	Female	Male	Female	Male	Female
Push-Lock connection, conductor cross-section: 1.5 mm² ... 2.5 mm², shielded								
	S	Straight	1080225	1080227	1080220	1080222	–	–
	K	Straight	–	–	–	–	1080231	1080228
							4-pos.	
	T	Straight	–	–	–	–	1080215	1080218
	L	Straight	–	–	–	–	1080239	1080237
							4+FE-pos.	
	L	Straight	–	–	–	–	1080235	1080233
Push-Lock connection, conductor cross-section: 1.5 mm² ... 2.5 mm², unshielded								
							4-pos.	
	T	Straight	–	–	–	–	1151362	1151366
							4+FE-pos.	
	L	Straight	–	–	–	–	1151368	1151390

M12 connector, designed for assembly				2+PE-pos.		3+PE-pos.		4-pos.			
Web code: #0252 RoHS Lead-free items available				Coding	Design	Male	Female	Male	Female	Male	Female
Screw connection, conductor cross-section: 0.75 mm² ... 1.5 mm², unshielded											
	S	Straight	1419639 *	1419640 *	1404641 *	1404642 *	—	—			
		Angled	1419641 *	1419642 *	1408985 *	1408987 *	—	—			
	T	Straight	—	—	—	—	1404643 *	1404644 *			
		Angled	—	—	—	—	1408988 *	1408989 *			
Crimp connection, conductor cross-section 1.5 mm² ... 2.5 mm², shielded											
			2+PE-pos.		3+PE-pos.		4+PE-pos.				
	Coding	Design	Male	Female	Male	Female	Male	Female			
	S	Straight	1027467	1027469	1027467	1027469	—	—			
	K	Straight	—	—	—	—	1027474	1027476			
							4-pos.				
	T	Straight	—	—	—	—	1027465	1027466			
	L	Straight	—	—	—	—	1027479	1007480			
							4+FE-pos.				
	L	Straight	—	—	—	—	1027477	1027478			
Crimp contacts											
			S-, T-coding		K-, L-coding						
	Connection cross-section		Male	Female	Male	Female					
	1.5 mm²		1029394	1029395	1029394	1029396					
	2.5 mm²		1029388	1029390	1029388	1029392					
	PE male, 1.5 mm²		1029398	—	—	1029398					
	PE male, 2.5 mm²		1029389	—	—	1029389					
	PE female, 1.5 mm²		—	1029400	1029401 *	—					
	PE female, 2.5 mm²		—	1029391	1029393	—					

Please order crimp contacts separately.

* No items yet available with reduced lead content below 0.1%.

Assembled cables with M8 or M12 connectors (PUR)

i Web code: #0283



Lead-free items available



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 male connector, 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 female connector, 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 male connector, straight female connector

0.3 m	1681907 *	1682142 *	1681509	1668357	1681583	1500884
0.6 m	1681910 *	1682155 *	1681512	1668360	1681596	1500897
1.5 m	1681923 *	1682168 *	1681525	1668373	1681606	1500907
3 m	1681936 *	1682171 *	1681538	1668386	1681619	1500910

Angled female connector, 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

* No items yet available with reduced lead content below 0.1%.

Assembled cables with M12 push-pull connectors (PUR)

new  Web code: #2679  Lead-free items available						
	Signal cable 3-pos.	Signal cable 4-pos.	Signal cable 5-pos.	Signal cable 3-pos., shielded	Signal cable 4-pos., shielded	Signal cable 5-pos., shielded
	Cable length					
Straight male connector, free cable end						
1.5 m	1384594	1392638	1393925	1476550	1476855	1476903
3 m	1385536	1392698	1395703	1476806	1476854	1476902
5 m	1385538	1392709	1395709	1476805	1476853	1476901
10 m	1385625	1392713	1395710	1476803	1476851	1476900
Angled male connector, free cable end						
1.5 m	1385626	1392735	1395742	1476802	1476850	1476899
3 m	1385643	1392755	1395750	1476800	1476848	1476898
5 m	1385646	1392829	1395803	1476798	1476846	1476897
10 m	1385647	1392834	1395805	1476796	1476845	1476895
Straight female connector, free cable end						
1.5 m	1385782	1392839	1395814	1476794	1476844	1476893
3 m	1385791	1393005	1395817	1476792	1476843	1476892
5 m	1385792	1393026	1395822	1476791	1476842	1476890
10 m	1385968	1393032	1395827	1476788	1476841	1476889
Angled female connector, free cable end						
1.5 m	1386380	1393038	1395830	1476786	1476840	1476888
3 m	1386394	1393047	1395831	1476785	1476839	1476886
5 m	1386513	1393072	1395834	1476784	1476838	1476885
10 m	1386514	1393169	1395835	1476782	1476837	1476884
Straight male connector, straight female connector						
0.3 m	1386723	1393188	1395841	1476834	1476881	1476912
0.6 m	1386786	1393219	1395969	1476832	1476878	1476911
1.5 m	1223960	1224019	1224208	1224012	1224173	1224249
3 m	1386788	1393228	1396099	1476831	1476877	1476910
Straight male connector, angled female connector						
0.3 m	1386796	1393235	1396479	1476829	1476875	1476909
0.6 m	1392195	1393272	1396489	1476828	1476873	1476908
1.5 m	1224008	1224166	1224223	1224014	1224179	1224252
3 m	1392208	1393555	1396496	1476826	1476872	1476907
Angled male connector, angled female connector						
0.3 m	1392235	1393583	1396499	—	—	—
0.6 m	1392254	1393590	1396511	—	—	—
1.5 m	1224009	1224169	1224229	1224018	1224204	1224256
3 m	1392255	1393595	1396517	—	—	—
Straight male connector, M12 female, straight for screwing in						
0.3 m	1392395	1393615	1396523	—	—	—
0.6 m	1392562	1393900	1396533	—	—	—
1.5 m	1392625	1393907	1396546	—	—	—
3 m	1392628	1393910	1396550	—	—	—

Assembled network cables with M8 connectors (PUR)

i Web code: #1656



Lead-free items available

EtherCAT.
PROFIBUS
Ethernet



EtherCAT.
PROFIBUS
Ethernet



EtherCAT.
PROFIBUS
Ethernet



	4-pos. A-coded		4-pos. D-coded	
Cable length	Male, straight	Female, straight	Male, straight	Male, angled
Free cable end				
1 m	1407344 *	—	1423703	1080526
2 m	1407345 *	—	1423704	1080528
5 m	1407346 *	—	1423705	1080530
10 m	1407347 *	—	1423706	1080531
Variable	1408719 *	1408716	—	—
Straight male connector				
1 m	1407348 *	—	1423707	1080538
2 m	1407349 *	—	1423708	1080539
5 m	1407350 *	—	1423709	1080540
10 m	1407351 *	—	1423710	1080542
Variable	1408718 *	1408715 *	—	—
Angled male connector				
1 m	—	—	—	1080532
2 m	—	—	—	1080535
5 m	—	—	—	1080536
10 m	—	—	—	1080537
RJ45 connector				
1 m	1407352	—	1423711	1080543
2 m	1407353	—	1423712	1080544
5 m	1407354	—	1423713	1080545
10 m	1407355	—	1423714	1080546
Variable	1408717	1408714	—	—

* No items yet available with reduced lead content below 0.1%.
Additional cable qualities and cables with connectors in sizes M8 to M40 for signals, data, and power can be found at phoenixcontact.com.

Assembled network cables with M12 connectors (PUR)

 Web code: #0284  RoHS Lead-free items available	 Ethernet	Ethernet	Ethernet	Ethernet	Ethernet	 PROFINET	 PROFIBUS	 DeviceNet CANopen
								
Cable length	X-coded	D-coded	Push-pull D-coded	Y-coded	D-coded	B-coded	A-coded	
Straight male connector, free cable end								
1 m	1407467	1407356	1476008	1407487 *	1407495	—	—	
2 m	1407468	1407357	1476012	1407488 *	1407496	1507243	1507421	
5 m	1407469	1407358	1476013	1407489 *	1407497	1507256	1507434	
10 m	1407470	1407359	1476014	1407490 *	1407498	1507269	1507447	
15 m	—	—	—	—	—	1507272	1507450	
Variable	1408648	1408713	—	1408642 *	1408640	1538047	1538102	
Straight female connector, free cable end								
1 m	—	1407380	1476016	—	1407528	—	—	
2 m	—	1407381	1476018	—	1407529	1507298	1507476	
5 m	—	1407382	1476019	—	1407530	1507308	1507489	
10 m	—	1407383	1476020	—	1407531	1507311	1507492	
15 m	—	—	—	—	—	1507324	1507502	
Variable	—	1408697	—	—	1408623	1538063	1538128	
Straight male connector, straight female connector								
0.3 m	—	—	1224258	—	—	1507340	1507528	
0.5 m	—	—	—	—	—	1507353	1507531	
0.6 m	—	—	—	—	—	—	—	
1 m	—	1407400	1476045	—	1407553	1507366	1507544	
2 m	—	1407401	1476046	—	1407554	1507379	1507557	
5 m	—	1407402	1476058	—	1407555	1507382	1507560	
10 m	—	1407403	1476056	—	1407556	1507395	1507572	
15 m	—	—	—	—	—	1507405	1507586	
Variable	—	1408692	—	—	1408617	1538089	1538144	
Straight male connector, straight male connector								
1 m	1407483	1407376	1476055	1407491 *	1407524	—	—	
2 m	1407484	1407377	1476054	1407492 *	1407525	—	—	
5 m	1407485	1407378	1476051	1407493 *	1407526	—	—	
10 m	1407486	1407379	1476048	1407494 *	1407527	—	—	
Variable	1408644	1408706	—	1408641 *	1408634	—	—	
Straight male connector, RJ45								
1 m	—	—	1476023	—	—	—	—	
2 m	—	—	1476024	—	—	—	—	
5 m	—	—	1476025	—	—	—	—	
10 m	—	—	1476027	—	—	—	—	
Straight female connector, RJ45								
1 m	—	—	1476029	—	—	—	—	
2 m	—	—	1476030	—	—	—	—	
5 m	—	—	1476031	—	—	—	—	
10 m	—	—	1476032	—	—	—	—	
Termination resistors, M12 male								
	—	—	—	—	—	1507803	1507816	

Additional cable qualities and cables with connectors in sizes M8 to M40 for signals, data, and power can be found at phoenixcontact.com.

* No items yet available with reduced lead content below 0.1%.

Assembled network cables with M12 connectors (PUR)

 Web code: #0284


Lead-free items available



Cable length

B-coded,
straightB-coded,
angledStainless steel,
A-coded, straightStainless steel,
A-coded, angledA-coded,
straightA-coded,
angled

Straight or angled male connector, free cable end

2 m	1507065	–	1419092	1419097	1431173	–
5 m	1507078	–	1419093	1419098	1431186	–
10 m	1507081	–	1419094	1419099	1431199	–
15 m	1507094	–	1419095	1419100	1431209	–
20 m	–	–	1419096	1419101	–	–
Variable	1537983	1430970	–	–	1431322	1431335

Straight or angled female connector, free cable end

2 m	1507117	–	1419082	1419087	1431212	–
5 m	1507120	–	1419083	1419088	1431225	–
10 m	1507133	–	1419084	1419089	1431238	–
15 m	1507146	–	1419085	1419090	1431241	–
20 m	–	–	1419086	1419091	–	–
Variable	1538005	–	–	–	1431348	1431351

Straight or angled male connector, straight female connector

0.3 m	1507162	–	1419102	1419110	1431254	–
0.5 m	1507175	–	1419103	1419111	1431267	–
1 m	1507188	–	1419104	1419112	1431270	–
2 m	1507191	–	1419105	1419113	1431283	–
5 m	1507201	–	1419106	1419114	1431296	–
10 m	1507214	–	1419107	1419115	1431306	–
15 m	1507227	–	1419108	1419116	1431319	–
20 m	–	–	1419109	1419117	–	–
Variable	1538021	1431005	–	–	1431364	1431377

Straight or angled male connector, angled female connector

0.3 m	–	–	1419118	1419126	–	–
0.5 m	–	–	1419119	1419127	–	–
1 m	–	–	1419120	1419128	–	–
2 m	–	–	1419121	1419129	–	–
5 m	–	–	1419122	1419130	–	–
10 m	–	–	1419123	1419131	–	–
15 m	–	–	1419124	1419132	–	–
20 m	–	–	1419125	1419133	–	–
Variable	1431005	1431018	–	–	1431380	1431393

Additional cable qualities and cables with connectors in sizes M8 to M40 for signals, data, and power can be found at phoenixcontact.com.

Assembled cables with M12 connectors (PUR)

i Web code: #1081



Lead-free items available



**PROFI
NET**



**PROFI
NET**



Coding	S	T	L	L	K	M
Number of positions	3+PE	4	4	4+FE	4+PE	5+PE
Conductor cross-section	1.5 mm ²	1.5 mm ²	2.5 mm ²	2.5 mm ²	2.5 mm ²	1.5 mm ²
Cable length			PROFINET- specified	PROFINET- specified		

Straight male connector, free cable end, unshielded

2 m	1408836	1408813	—	—	—	—
3 m	—	—	1425066	1414887	1414870	1414953 *
5 m	1408837	1408814	1425067	1414891	1414875	1414957 *
10 m	1408838	1408815	1425028	1414895	1414879	1414961 *

Straight female connector, free cable end, unshielded

2 m	1408844	1408824	—	—	—	—
3 m	—	—	1425074 *	1414790	1414788	1414910 *
5 m	1408845	1408825	1425075 *	1414806	1414804	1414918 *
10 m	1408846	1408826	1425076 *	1414823	1414821	1414926 *

Angled female connector, free cable end, unshielded

2 m	1408852	1408828	—	—	—	—
3 m	—	—	1425078 *	1414786	1414784	1414907 *
5 m	1408853	1408829	1425079 *	1414802	1414800	1414916 *
10 m	1408854	1408830	1425080 *	1414819	1414817	1414924 *

Straight male connector, free cable end, shielded

3 m	1424105	1424121	—	1414888	1414871	1414954 *
5 m	1424245	1424122	—	1414892	1414876	1414958 *
10 m	1424107	1424123	—	1414896	1414880	1414962 *

Straight female connector, free cable end, shielded

3 m	1424097	1424113	—	1414791	1414789	1414911 *
5 m	1424098	1424114	—	1414807	1414805	1414919 *
10 m	1424099	1424115	—	1414824	1414822	1414927 *

Angled female connector, free cable end, shielded

3 m	1424101	1424117	—	1414787	1414785	1414908 *
5 m	1424102	1424118	—	1414803	1414801	1414917 *
10 m	1424103	1424128	—	1414820	1414818	1414925 *

Additional cable qualities and cables with connectors in sizes M8 to M40 for signals, data, and power can be found at phoenixcontact.com.

* No items yet available with reduced lead content below 0.1%.

Accessories

 Web code: #0559

RoHS

Lead-free items available

Size

M5

M8

M12

Plugs

Sockets

Plugs

Sockets

Plugs

Sockets

Screw plug



Plastic

–

1533288

–

1682540

–

1680539

Plastic for K-, L-, and M-coded versions

–

–

–

–

–

1092802

Metal, with slotted screw head

–

–

–

–

–

1503302

Metal, with hexagonal screw head

–

–

–

–

–

1320658 *

Stainless steel V4A

–

–

–

–

–

1555538

Screw plug for SPEEDCON versions



Plastic

–

–

–

–

–

1553129

Sealing cap



Plastic

–

–

–

1560251

–

Metal

–

–

–

1430488 *

–

Sealing elements for unused housing cutouts



Sealing plug, plastic, for Pg9/Pg11

1670235

Screw plug, metal, M16 x 1.5

1453368 *

Plastic sealing caps and locking screws, with retaining strap



For cables

1430857

1430860

1430873

1430899

With Ø 3 mm fastening eye

–

1441105

–

–

With Ø 8 mm fastening eye

1441082

–

–

–

With Ø 12 mm fastening eye

–

1441095

1456187

–

With Ø 15 mm fastening eye

–

–

1456190

1456200

Metal sealing caps and locking screws, with fastening chain



With Ø 16 mm fastening eye

–

–

1430491 *

1320659 *

EMC hexagonal nut with fine toothing for device connectors



With fine toothing facing inwards. This prevents visible scratch marks from appearing on the device surface.

M12 x 1

1440151

M15 x 1

1104648

M16 x 1.5

1440164

Pg9

1440177

Seal for device connector



O-ring for M8 socket housing, green, 5 x 0.8

1098590

O-ring for M8 socket housing, black, 7 x 1

1437070

O-ring for M12 socket housing, green, 8 x 1.3

1426211

O-ring for M12 fastening thread, black, 12 x 1.5

1424275

Flat gasket for M16 fastening thread, black, 13 x 16.6 x 1.5

1430394

Flat gasket for Pg9 fastening thread, black, 13 x 16.6 x 2

1556320

* No items yet available with reduced lead content below 0.1%.

Pin assignments and litz wire colors

Pin assignments of M5 signal connectors

Female, 3-pos.	Male, 3-pos.	Female, 4-pos.	Male, 4-pos.

Pin assignments of M8 signal connectors

Female, 3-pos.	Male, 3-pos.	Female, 4-pos.	Male, 4-pos.
Female, 6-pos.	Male, 6-pos.	Female, 8-pos.	Male, 8-pos.

Pin assignments of M12 signal connectors

Female, 4-pos., A-coded	Male, 4-pos., A-coded	Female, 4-pos., D-coded	Male, 4-pos., D-coded

Litz wire colors

Assignment: M5 male / female

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

Litz wire colors

Assignment: M8 male / female

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

Litz wire colors

Assignment: M12 male / female

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

Pin assignments and litz wire colors

Pin assignments of M12 signal connectors

Female, 5-pos., A-coded	Male, 5-pos., A-coded	Female, 5-pos., B-coded	Male, 5-pos., B-coded
Female, 8-pos.	Male, 8-pos.	Female, 12-pos.	Male, 12-pos.
Female, 17-pos.	Male, 17-pos.		

Litz wire colors

Assignment: M12 male / female

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

Pin assignments of M8 data connectors

Female, 4-pos., Ethernet	Male, 4-pos., Ethernet	Female, 5-pos., DeviceNet™, B-coded	Male, 5-pos., DeviceNet™, B-coded
Female, 4-pos., PROFINET, D-coded	Male, 4-pos., PROFINET, D-coded		

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

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

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

Pin assignments of M12 data connectors

Female, 4-pos., A-coded	Male, 4-pos., A-coded	Female, 4-pos., D-coded	Male, 4-pos., D-coded	Female, 5-pos., B-coded	Male, 5-pos., B-coded
Female, 8-pos., A-coded	Male, 8-pos., A-coded	Female, 8-pos., X-coded	Female, 8-pos., Y-coded		

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

Pin	Wire color	Signal PROFIBUS
1	—	—
2	GN	A cable
3	—	—
4	RD	B cable
5	Flexible filler lead	—

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: DeviceNet™, 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: VARAN 8-pos., A-coded

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

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

Pin	Wire color	Signal
1	BU	AS-i+
2	WH	
3	BN	AS-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

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

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

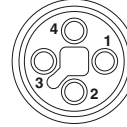
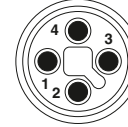
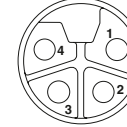
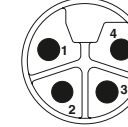
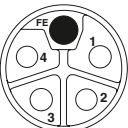
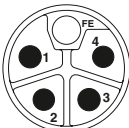
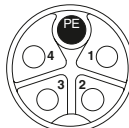
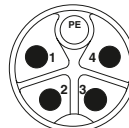
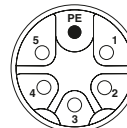
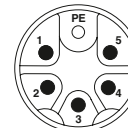
Pin assignments and litz wire colors

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		D1+
2	OG		D1–
3	WHGN		D2+
4	GN		D2–
5	BU		D4+
6	WH		D4–
7	BN		D3–
8	BK		D3+

Pin assignments of M12 power connectors

							
Female, 2+PE, S-coded	Male, 2+PE, S-coded	Female, 3+PE, S-coded	Male, 3+PE, S-coded	Female, 4-pos., T-coded	Male, 4-pos., T-coded	Female, 4-pos., L-coded	Male, 4-pos., L-coded
							
Female, 4+FE, L-coded	Male, 4+FE, L-coded	Female, 4+PE, K-coded	Male, 4+PE, K-coded	Female, 5+PE, M-coded	Male, 5+PE, M-coded		

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	

Assignment: 4-pos. T-coded		
Pin	Wire color	
1	BN	
2	WH	
3	BU	
4	BK	

Assignment: 4-pos., L-coded		
Pin	Wire color	
1	BN	
2	WH	
3	BU	
4	BK	

Assignment: 4+PE, K-coded		
Pin	Wire color	
1	BK1	
2	BK2	
3	BK3	
4	BK4	
PE	GNYE	

Assignment: 5+PE, M-coded		
Pin	Wire color	
1	BK1	
2	BK2	
3	BK3	
4	BK4	
5	BK5	
PE	GNYE	

Assignment: 4+FE, L-coded		
Pin	Wire color	
1	BN	
2	WH	
3	BU	
4	BK	
FE	PK	

Excellent services

Along your development process, Phoenix Contact offers excellent services that make a difference. Discover how modern configurators, comprehensive technical data, and free product samples can make your daily work easier. As your partner, we will support you in the design-in process all the way to the development of customized connection and housing solutions.

The easy way to more choice

Choose online from 60,000 products and find the right solution quickly:

- Intuitive filter and search functions
- Comprehensive technical data and downloads such as drawings and 3D models
- Personal on-site consultation

The easy way to more individuality

Customize your products with colors, printing, and special designs:

- Customer-specific versions
- Customized new products
- Intuitive online configurators





Simple selection with filters and technical data



There is a separate detail page for every product



A data sheet is available to download for every item



With our global network, Phoenix Contact is always nearby



Device connection technology can be comprehensively configured



Housing parts and connection technology are easy to configure



Cable and assembly systems can be configured easily



Phoenix Contact provides support from the initial idea right through to series production

Further information on Phoenix Contact services:
Simply enter the web code in the search field on our website.

i Web code: #2594

Excellent services

Phoenix Contact supports device designers with excellent services, even beyond the design-in process. Benefit from flexible procurement and global availability of our items. As your expert partner, our experts will keep you up-to-date on the latest technologies and trends.

The easy way to more flexibility

Use our different procurement channels and benefit from worldwide availability.

- All products can easily be ordered online
- Free online sample service
- Globally reliable logistics network thanks to direct shipping or distribution

The easy way to more expertise

Always stay up to date on technologies and trends with us as your reliable partner.

- Technology, industry, and design-in experts at your side
- We will provide you with custom training programs – either on site or digitally
- Free webinars, seminars, and video tutorials





The online sample service is available in a large number of countries



Find the product you want quickly with intuitive filters



Product samples are available with free shipping



Reliable logistics worldwide



Keep up-to-date on new products, trends, and technologies



We will provide you with custom training programs – either on site or digitally



Stay up to date via YouTube, LinkedIn, Twitter, and Facebook



Remain reliably updated with the Phoenix Contact newsletter

Further information on Phoenix Contact services:
Simply enter the web code in the search field on our website.

i Web code: #2594

