

# Circular connectors M5 to M12

Product overview 2017/2018

# Circular connectors for demanding applications

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

The wide selection of designs enables comprehensive connection solutions for devices with data rates up to 10 Gbps. They can also be used to connect signals up to 17 positions and for supplying power up to 630 V and 16 A in the smallest installation space.

## Signals up to 17 positions

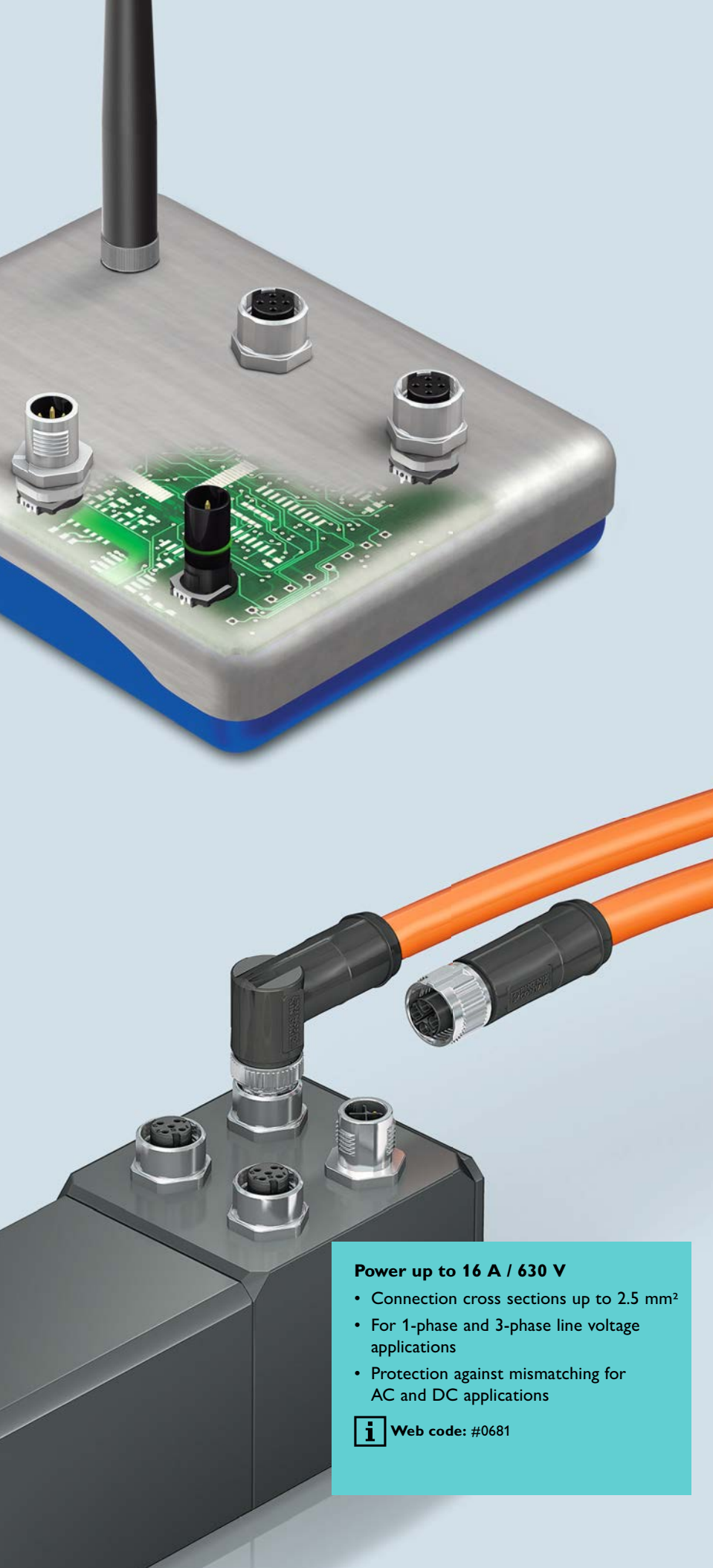
- Currents up to 4 A
- Voltages up to 250 V
- Available with an optional shield connection

 Web code: #0680

## Data up to 10 Gbps

- Codings for all commonly used fieldbus systems
- Hybrid connectors for simultaneous data and PoE transmission (Power over Ethernet)
- Components according to CAT6<sub>A</sub>

 Web code: #0682



#### Power up to 16 A / 630 V

- Connection cross sections up to 2.5 mm<sup>2</sup>
- For 1-phase and 3-phase line voltage applications
- Protection against mismatching for AC and DC applications

**i** Web code: #0681

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### Find out more with the web code

You can find web codes in this brochure: a pound sign followed by a four-digit number combination.

**i** Web code: #1234 (example)

This allows you to access information on our website quickly.

#### It could not be easier:

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



Or use the direct link:  
[phoenixcontact.net/webcode/#1234](https://www.phoenixcontact.net/webcode/#1234)

# Unique variety for signals, data and power

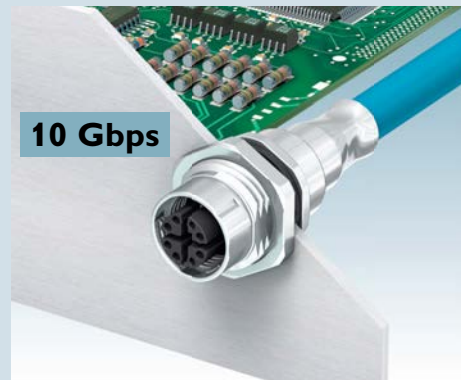
The rapid enhancement of industrial electronics is constantly placing new demands on device connection technology.

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

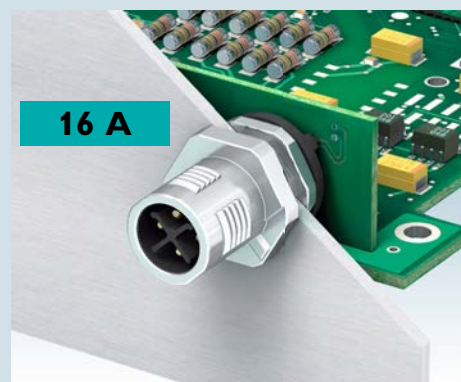
The modular structure of device connectors facilitates the simple and cost-effective integration of various data, signal, and power supply pin assignments into a device concept.



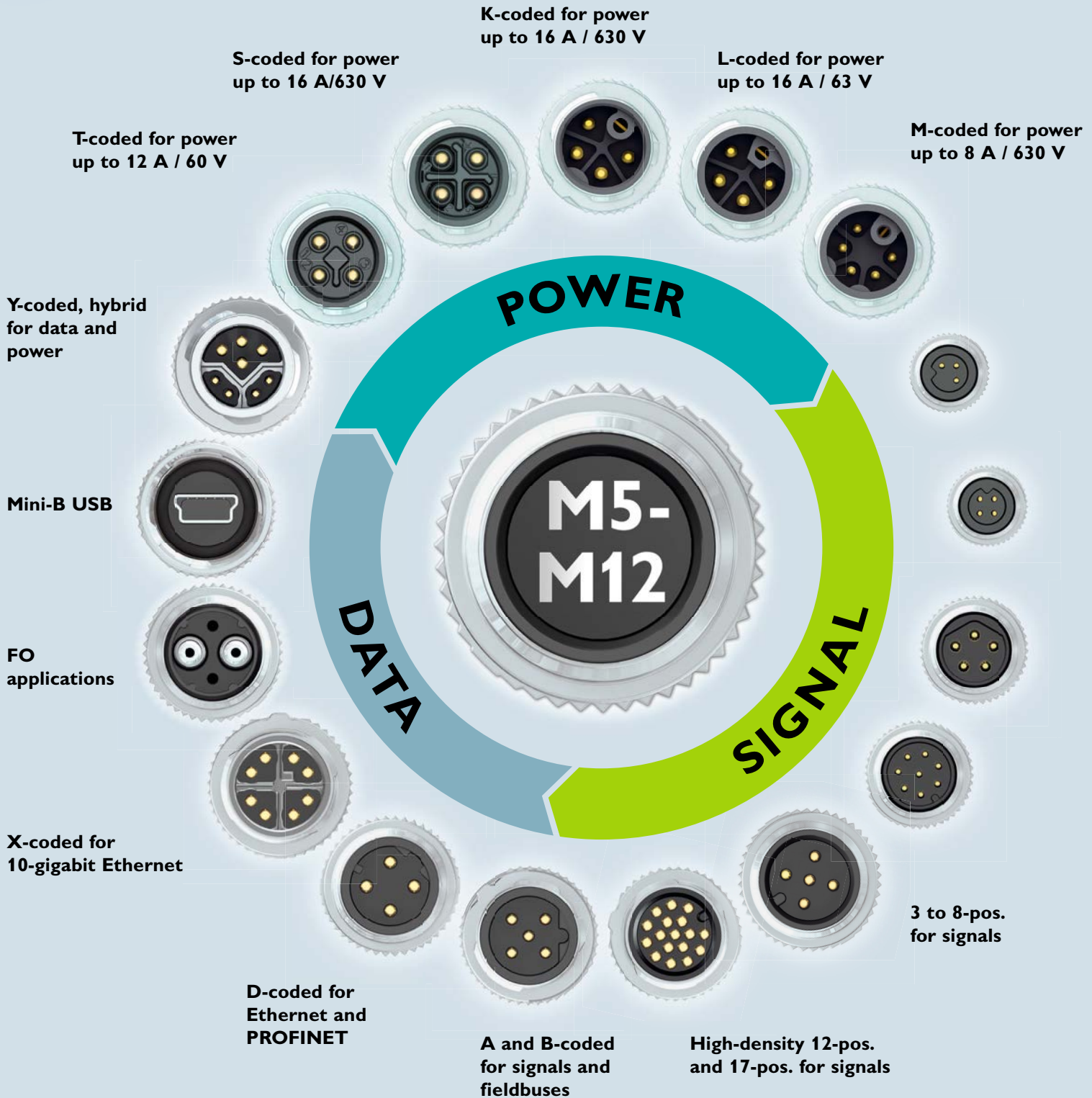
For high contact density



For fast data transmission



For high performance



# Device connectors with litz wires and cable connection

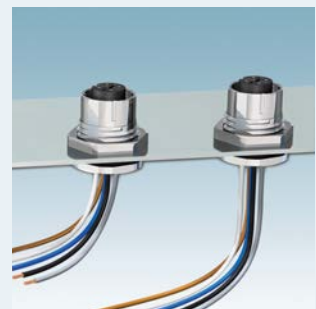
Pluggable device connectors with litz wires or size M5, M8 and M12 round cables are available as an alternative to a fixed cable connection. Thanks to its wide range of housing designs, Phoenix Contact can offer an appropriate solution for every individual application.



## Variety of mounting options



Front mounting



Rear mounting



Modular mounting

## Main features

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



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

## Advantages at a glance



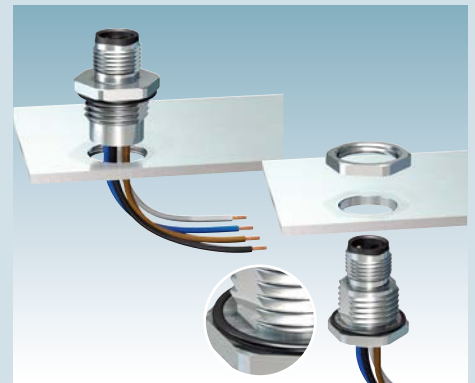
### Pre-assembled cables

- No field assembly necessary
- Various cable lengths and assemblies



### Easy positioning

- Defined cable outlet direction



### Safe mounting

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



IP67

### Reliable seals

- When unplugged
- Device electronics protection



### Reliable transmission

- 360° shield connection
- Fieldbus-specific cables



### Fieldbus-specific coding

- Protection against mismatching, thanks to colored and mechanical, fieldbus-specific codings

# Device connectors for PCB connection

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

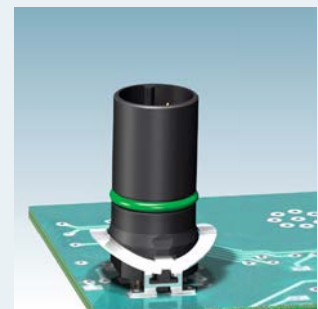
The two-piece device connectors let you implement all numbers of positions and codings for signal, data and power supply in identical mechanical installation conditions.



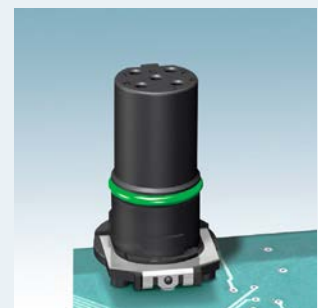
## PCB connection



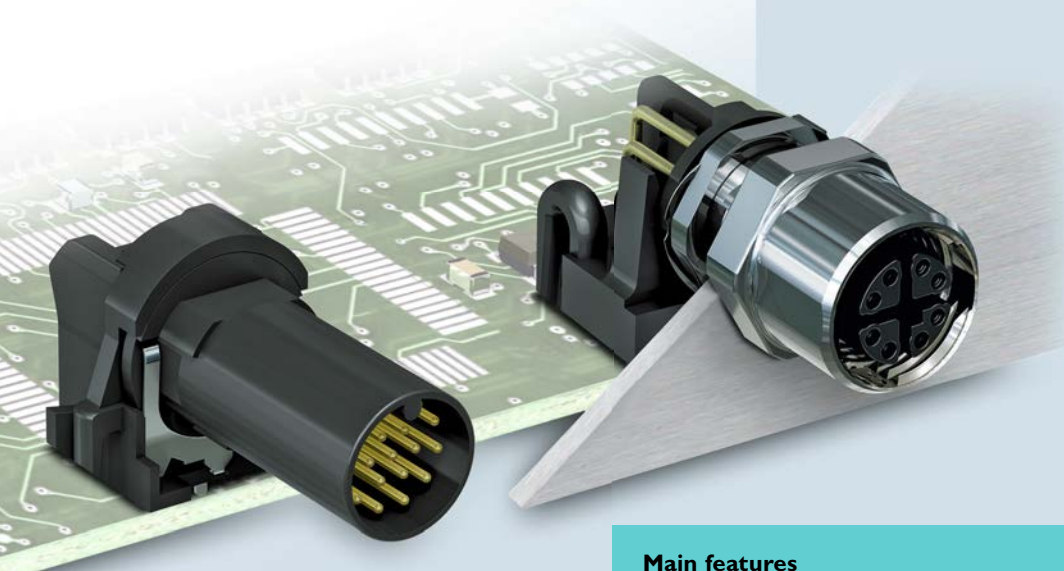
One-piece and two-piece, for wave soldering processes



Two-piece, for SMD processes



Two-piece, for THR processes



### Main features

- One-piece connectors for the wave soldering process with 6 mm and 12 mm contact lengths
- Available with an optional shield connection
- Two-piece device connectors for wave, THR and SMD soldering processes in all available numbers of positions and codings
- Easy housing integration thanks to uniform design-in design



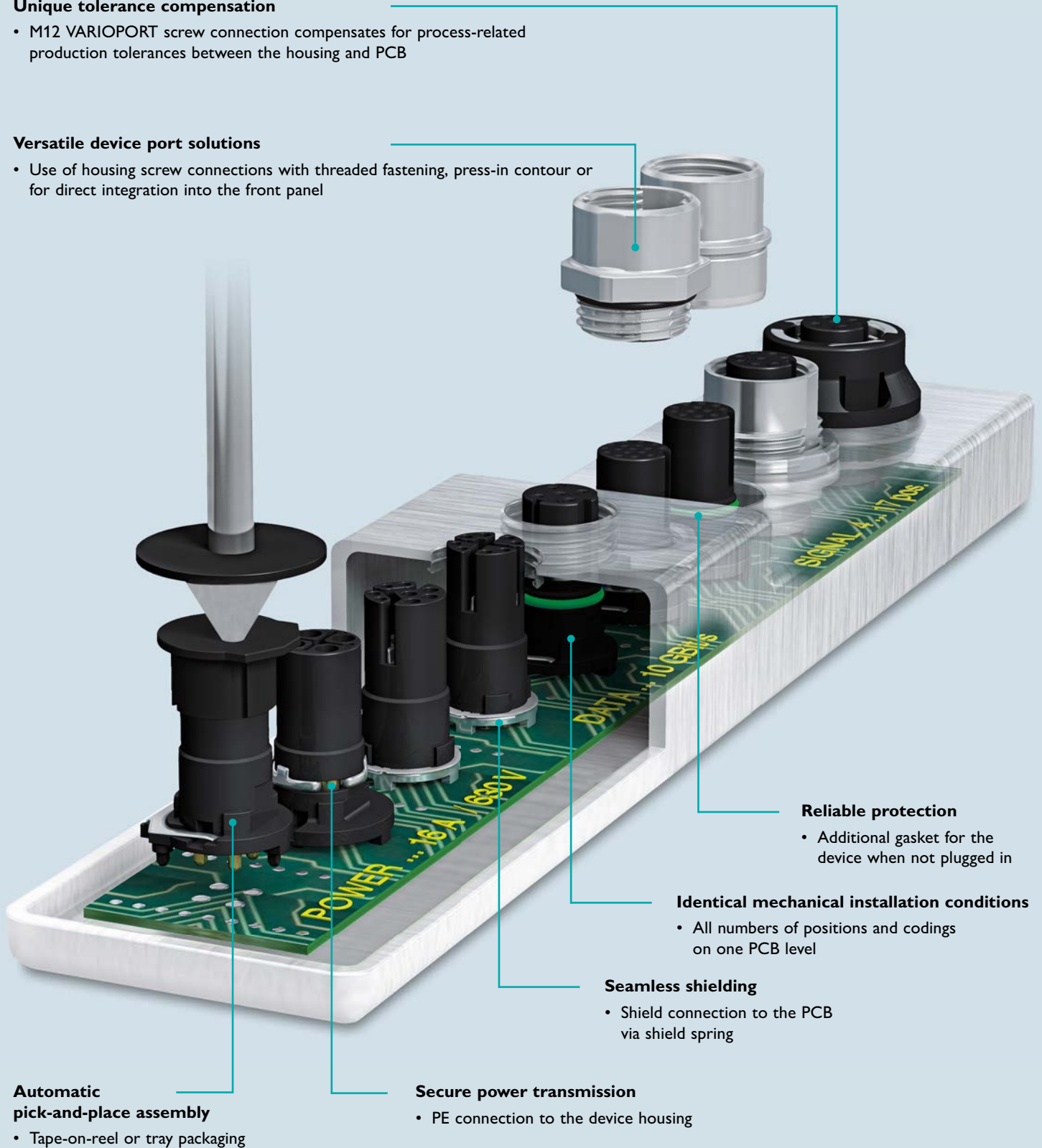
## Advantages at a glance

### Unique tolerance compensation

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

### Versatile device port solutions

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



### Automatic pick-and-place assembly

- Tape-on-reel or tray packaging

### Secure power transmission

- PE connection to the device housing

### 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

# 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 for assembly.

You have access to a comprehensive product range of assembled cables for quick and convenient field cabling. Halogen-free PUR cabling, which we use as standard, already meets the requirements of many fields of application.



## Wide variety of cabling



For fieldbuses and networks



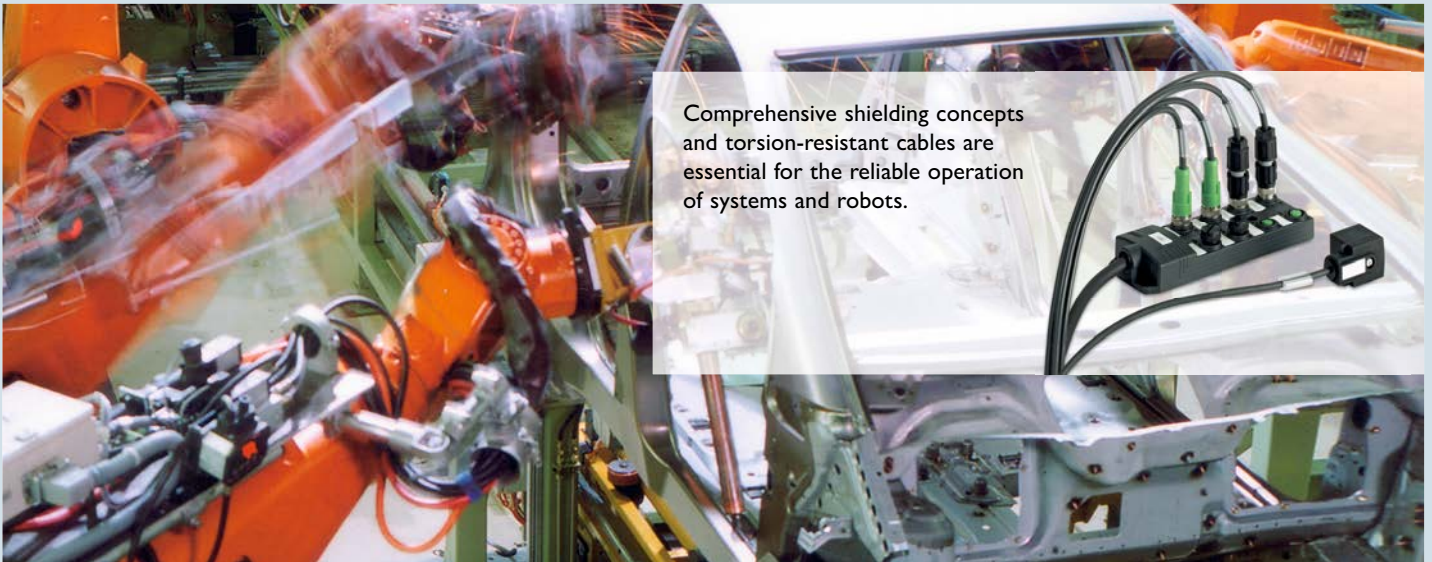
For signals, 3 to 17 positions



For power, up to 16 A / 630 V

## Main features

- Short connect time, thanks to SPEEDCON fast locking system
- The right cable and right connector for every application
- Flexible cabling arrangement thanks to connectors for assembly in socket and connector versions



Comprehensive shielding concepts and torsion-resistant cables are essential for the reliable operation of systems and robots.

## Advantages at a glance



### Fast locking

- Reduced connection times with optional SPEEDCON fast locking system



### Application-specific solutions

- Customer-specific assemblies and cable lengths



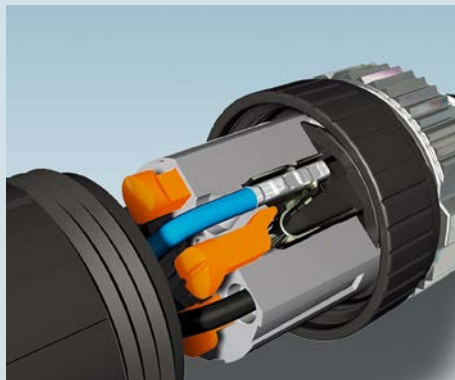
### Screw connection

- Well-known connection technology for all cable and insulation types



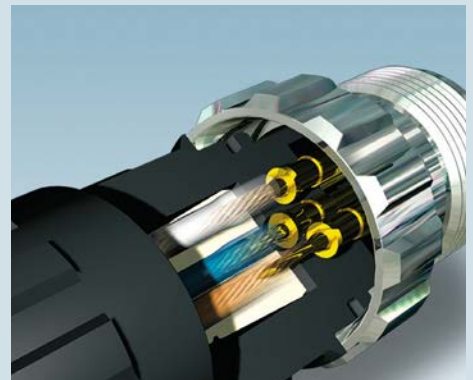
### IDC displacement connection QUICKON

- Fastest connection on the market, gas-tight contact and vibration-resistant



### Spring connection

- Easy, secure wiring for all conductor and insulation types with and without ferrules




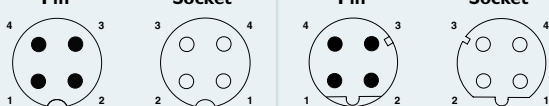







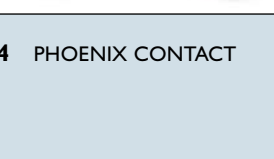
### Pierce connection

- Reliable connection to the smallest installation space


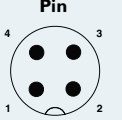
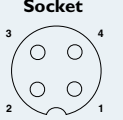
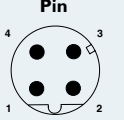
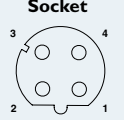



## Page navigation – Circular connectors in M5, M8 and M12


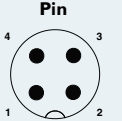
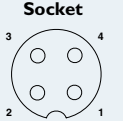
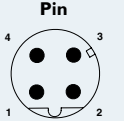
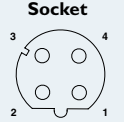



Design	Number of positions	3	4		5	
	Coding	A	A	D	A	B
<b>M12 device connector for litz wire connection</b>						
	Front mounting with litz wires	–	14 / 37	14	14	14
	Rear mounting with litz wires	–	16	16	16	16
	Front mounting, modular, crimp connection	–	16	16	16	16
	Front mounting, with solder cups	–	–	–	18	–
	Rear mounting, with solder cups	–	–	–	20	–
<b>M12 device connector with assembled cable</b>						
	Front mounting	–	–	31	36	34
	Rear mounting	–	18 / 37	31 / 33	18 / 36	34
<b>M12 device connector for PCB connection</b>						
	One-piece, front mounting	–	18	18	18	18
	One-piece, rear mounting	–	20 / 37	20 / 31 33	20 / 36	34
	Two-piece, for wave/THR soldering processes	–	22	22	22	22
	Two-piece, for SMD soldering processes	–	24	24	24	24
<b>M12 connector, for assembly / with molded cable</b>						
	Plastic-molded cables	49	49	50	49	49
	For assembly	–	44	47	44 / 47	47
<b>M8 device connector with litz wires</b>						
	Front mounting	26	26	–	–	39
	Rear mounting	26	26	–	–	–
<b>M8 device connector for PCB connection</b>						
	One-piece, rear mounting	26	26	–	–	39
	Two-piece, for SMD soldering processes	28	28	–	–	39
<b>M8 connector, for assembly / with molded cable</b>						
	Plastic-molded cables	49	49	–	–	–
	For assembly	46	46	–	–	–
<b>M5 device connector with litz wires</b>						
	Front mounting	30	30	–	–	–
<b>M5 device connector for PCB connection</b>						
	One-piece, rear mounting	30	30	–	–	–

6	8			12	17	2+PE	3+PE	4	4+PE	4 / 4+FE	5+PE
A	A	X	Y	A	A	S	S	T	K	L	M
-	14	-	-	14	14	40	40	40	40	40	40
-	16	-	32	16	16	40	40	40	40	40	40
-	16	-	-	-	-	-	40	40	-	-	-
-	18	-	-	-	-	-	-	-	-	-	-
-	20	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	18 / 31 33	32	32	18	18	-	-	-	-	-	-
-	18	-	-	-	-	-	-	-	-	-	-
-	20	32	32	20	20	-	-	-	-	43	-
-	22	32	32	22	22	-	42	42	43	43	43
-	24	32	32	24	24	-	-	42	-	-	-
-	50	50	-	-	-	-	51	51	51	51	51
-	44 / 47	47	-	-	45	48	48	48	-	-	-
26	26	-	-	-	-	-	-	-	-	-	-
26	26	-	-	-	-	-	-	-	-	-	-
26	26	-	-	-	-	-	-	-	-	-	-
28	28	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-

Signal – M12, with litz wires, front mounting		4-pos.			
Pre-assembled with 0.5 m long litz wires	Coding	<b>A</b>		<b>D</b>	
	Rated voltage	250 V		250 V	
	Nominal current	4 A		4 A	
	Conductor cross section	0.34 mm <sup>2</sup>		0.34 mm <sup>2</sup>	
 Web code: #0207	Pin assignment	Pin	Socket	Pin	Socket
					
<b>Versions with zinc die-cast housing, for screw fastening</b>					
	<b>Pg9</b>	1693762	1693788	–	–
	Pg9 flat nut				
	<b>M16 x 1.5</b>	1523450	1523434	1551558	1535202
	M16 x 1.5 flat nut				
	<b>M16 x 1.5, XL versions, wrench size 19</b>	1411577	1411568	1411578	1411569
	M16 x 1.5 flat nut				
	<b>Pg9, can be positioned</b>	1693775	1693791	–	–
	<b>M16 x 1.5, can be positioned</b>	1523463	1523447	1552256	1535215
	<b>20 mm square flange, mounting holes 4 x Ø 3.2 mm</b>	1419784	1419797	1441626	1441639
	<b>25 mm square flange, mounting holes 4 x Ø 2.7 mm</b>	1419991	1420003	1440957	1440960
<b>Versions with plastic and brass housing (nickel-plated) for screw fastening</b>					
	<b>Plastic M16 x 1.5</b>	–	–	–	–
	<b>Brass (nickel-plated) M20 x 1.5</b>	1408451	1408436	–	–
<b>Versions with stainless steel housing (1.4404), for screw fastening</b>					
	<b>Pg9</b>	1554555	1555448	–	–
	Pg9 flat nut				
	<b>M16 x 1.5</b>	1405233	1458855	–	–
	M16 x 1.5 flat nut				
	<b>Pg9, can be positioned</b>	1554610	1554649	–	–
	<b>M20 x 1,5</b>	1408415	1408416	–	–

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


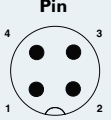
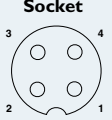
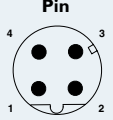
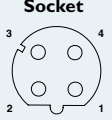


Signal – M12, crimp connection, front mounting		4-pos.			
<b>Modular</b>	Coding	<b>A</b>		<b>D</b>	
	Rated voltage	250 V		250 V	
	Nominal current	4 A		4 A	
	Conductor cross section	0.34 mm <sup>2</sup>		0.34 mm <sup>2</sup>	
 Web code: #0208	Pin assignment				
	25 mm square flange, mounting holes 4 x Ø 3.2 mm				
	Pre-assembled contact carrier, with 0.5 m long litz wires	1440805	–	1440821	–
	Contact carrier for crimp contacts, for assembly	1440931	–	1440944	–
	Crimp contacts Ø 1.0 mm, 0.08 ... 0.5 mm <sup>2</sup>	1452356	–	1452356	–
	Crimp contacts Ø 0.8 mm, 0.08 ... 0.34 mm <sup>2</sup>	–	–	–	–
	Crimping tool				


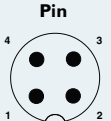
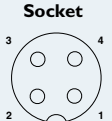
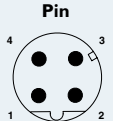
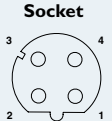



Signal – M12, with litz wires, rear mounting		4-pos.			
<b>Pre-assembled with 0.5 m long litz wires</b>	Coding	<b>A</b>		<b>D</b>	
	Rated voltage	250 V		250 V	
	Nominal current	4 A		4 A	
	Conductor cross section	0.34 mm <sup>2</sup>		0.34 mm <sup>2</sup>	
 Web code: #0209	Pin assignment				
<b>Versions with zinc die-cast housing, for screw fastening</b>					
	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
<b>Versions with plastic housing, for screw fastening</b>					
	Pg9	–	–	–	–
<b>Versions with stainless steel housing (1.4404), for screw fastening</b>					
	Pg9	1405239	1405240	–	–



5-pos.		8-pos.		12-pos.		17-pos.	
A	B	A	A	A	A	A	A
60 V	60 V	30 V	30 V	30 V	30 V	30 V	30 V
4 A	4 A	2 A	2 A	1.5 A	1.5 A	1.5 A	1.5 A
0.34 mm <sup>2</sup>	0.34 mm <sup>2</sup>	0.25 mm <sup>2</sup>	0.25 mm <sup>2</sup>	0.14 mm <sup>2</sup>	0.14 mm <sup>2</sup>	0.14 mm <sup>2</sup>	0.14 mm <sup>2</sup>
<b>1419959</b>							
1440818	–	1440759	–	1457827	–	–	–
1419988	–	1440915	–	1440928	–	–	–
1452356	–	1452356	–	–	–	–	–
–	–	–	–	1452372	–	–	–
<b>1212510</b>							


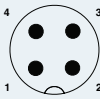
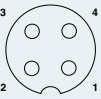
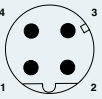
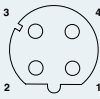





5-pos.		8-pos.		12-pos.		17-pos.			
A	B	A	A	A	A	A	A		
60 V	60 V	30 V	30 V	30 V	30 V	30 V	30 V		
4 A	4 A	2 A	2 A	1.5 A	1.5 A	1.5 A	1.5 A		
0.34 mm <sup>2</sup>	0.34 mm <sup>2</sup>	0.25 mm <sup>2</sup>	0.25 mm <sup>2</sup>	0.14 mm <sup>2</sup>	0.14 mm <sup>2</sup>	0.14 mm <sup>2</sup>	0.14 mm <sup>2</sup>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

Signal – M12, with cable, rear mounting		4-pos.			
Assembled cable/control cabinet feed-through	Coding	<b>A</b>		<b>D</b>	
	Rated voltage	250 V		250 V	
	Nominal current	4 A		4 A	
 Web code: #0210	Pin assignment				
<b>Versions for screw fastening, shielded</b>					
	M16 x 1.5 cable length 1 m, PUR black	1419399	1419302	–	–
	M16 x 1.5 cable length 2 m, PUR black	1419386	1419315	–	–
<b>Control cabinet feed-throughs for screw fastening</b>					
	M16 x 1.5 pin to socket	–	–	–	–
	M16 x 1.5 socket to socket	–	–	–	1424326

Signal – M12, solder connection, front mounting		4-pos.			
For soldering processes	Coding	<b>A</b>		<b>D</b>	
	Rated voltage	250 V		250 V	
	Nominal current	4 A		4 A	
 Web code: #0212	Pin assignment				
<b>Versions for PCB mounting featuring torsion protection, for wave soldering processes</b>					
	20 mm square flange, direct PCB mounting	1456417	1456420	1456394	1456404
	<b>Plastic versions, with solder cups, straight, for screw fastening</b>				
	M12 x 1	–	–	–	–
		M16 x 1.5	–	–	–




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

Signal – M12, solder connection, rear mounting		4-pos.				
For wave soldering processes	Coding	<b>A</b>		<b>D</b>		
	Rated voltage	250 V		250 V		
	Nominal current	4 A		4 A		
 Web code: #0213	Pin assignment					
<b>Versions with zinc die-cast housing, one-piece, straight, for screw fastening</b>						
	<b>Pg9</b>	6 mm solder pins	<b>1553459</b>	<b>1553462</b>	<b>1551516</b>	<b>1551503</b>
		12 mm solder pins	–	<b>1410777</b>	<b>1552308</b>	<b>1552272</b>
	<b>M12 x 1</b>	6 mm solder pins	<b>1551820</b>	–	<b>1551859</b>	–
		<b>M16 x 1,5</b>	6 mm solder pins	<b>1419742</b>	<b>1419755</b>	<b>1441749</b>
	<b>Pg9, with shield contact</b>	6 mm solder pins	<b>1556841</b>	–	<b>1553035</b>	<b>1553006</b>
		12 mm solder pins	<b>1558535</b>	<b>1558522</b>	<b>1558519</b>	<b>1558506</b>
	<b>M12 x 1, with shield contact</b>	6 mm solder pins	<b>1552955</b>	–	<b>1552984</b>	–
		<b>M16 x 1,5, with shield contact</b>	6 mm solder pins	<b>1419768</b>	<b>1419771</b>	<b>1441862</b>
<b>Versions with plastic housing, one-piece, straight for screw fastening</b>						
	<b>Pg9</b>		–	–	–	–
	<b>Pg9 with solder cups</b>	Max. 0.34 mm <sup>2</sup>	–	–	–	–
		Max. 0.25 mm <sup>2</sup>	–	–	–	–
<b>Versions with stainless steel housing (1.4404), one-piece, straight for screw fastening</b>						
	<b>Pg9</b>		<b>1404979</b>	<b>1404974</b>	–	–
<b>Versions with brass housing (nickel-plated) , two-piece including housing, straight*</b>						
	<b>Straight, shielded, for fastening in the feed-through hole</b>		–	–	–	<b>1534627</b>
	<b>Straight, for fastening in the feed-through hole</b>		–	–	–	–

\* Cannot be combined with two-piece contact carriers for PCB mounting for THR, SMD and wave soldering processes

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	
1542745	1542761	1543647	1543650	1542758	1542774	1559932	1559929	1559961	1559958
1552311	1552285	1552324	1552298	-	1408770	-	-	-	-
1551833	-	1551846	-	1551862	-	1559945	-	1559974	-
1441765	1441778	1441781	1441794	1441804	1441817	1441820	1441833	1441846	1441859
1553048	1553019	1553051	1553022	1553873	1553860	1436783	1436770	1436819	1436806
1558551	1558548	1558577	1558564	-	1408771	-	-	-	-
1552968	-	1552971	-	1552997	-	1437106	-	1437119	-
1441888	1441891	1441901	1441914	1441927	1441930	1441943	1441956	1441969	1441972
-	1436330	-	-	-	1436343	-	-	-	-
-	1436314	-	-	-	-	-	-	-	-
-	-	-	-	-	1436327	-	-	-	-
1554746	1554733	-	-	1529807	1529797	-	-	-	-
1437193	1421685	1437203	1437180	-	-	-	-	-	-
1694211	1694237	1514883	1515934	1424017	1556854	-	-	-	-

Signal – M12, solder connection, PCB mounting		4-pos.			
For reflow and wave soldering processes	Coding	<b>A</b>		<b>D</b>	
	Rated voltage	250 V		250 V	
	Nominal current	4 A		4 A	
 Web code: #0214	Pin assignment	<b>Pin</b>	<b>Socket</b>	<b>Pin</b>	<b>Socket</b>
					
<b>Two-piece, THR contact carrier</b>					
	Straight, shielded, THR, in tray	1439939		1552214	1551451
	Straight, shielded, THR, on reel	1457500*	1457623*	1457513*	1457636*
	Straight, THR, in tray	1437164	1439942	–	1414071
	Straight, THR, on reel	1457490*	1457610*	–	–
<b>Two-piece, wave soldering contact carrier</b>					
	Angled, shielded, wave soldering, in blister pack	1439887	1432444	1436673	1432457
	Angled, wave soldering, in blister pack	1436660	1436628	–	–
	Straight, shielded, wave soldering, in blister pack	–	–	–	1551480
	Straight, wave soldering, in blister pack	–	–	–	–
<b>Two-piece, housing screw connections for THR and wave soldering contact carriers</b>					
	Screw versions with O-ring, rear mounting, M15 x 1 screw fastening				
	<b>SPEEDCON</b> screw versions with O-ring, rear mounting, M15 x 1 screw fastening				
	Clip-in versions, for straight, two-piece socket contact carriers tolerance-compensating, rear snap-in mounting (not for S-coded THR contact carriers) threaded sleeve  Fixing sleeve, can be used universally with any threaded sleeve		For housing panel thickness 1.0 ... 1.8 mm		
			For housing panel thickness 1.7 ... 2.5 mm		
			For housing panel thickness 2.4 ... 3.2 mm		
			For housing panel thickness 3.1 ... 3.9 mm		
				Color	
	SPEEDCON screw versions with O-ring, front mounting, M12 x 1 screw fastening				
	Screw versions with O-ring, front mounting, M12 x 1 screw fastening				
	SPEEDCON screw versions with flat gasket, front mounting, M12 x 1 screw fastening				
	Press-in versions, front mounting				

<sup>1), 2)</sup> Distance from PCB upper edge to housing front panel rear edge: <sup>1)</sup> 6 mm / <sup>2)</sup> 6.8 mm

<sup>3), 4), 5)</sup> Distance from PCB upper edge to housing front panel outer edge: <sup>3)</sup> 6 mm <sup>4)</sup> 7.5 mm / <sup>5)</sup> 9 mm

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	
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	–	–	1436987	1436990	1424194	1424195	1424196	1424197
–	–	–	1551477	–	–	–	–	–	–
–	1551464	–	–	–	–	–	–	–	–
<b>Pin:</b> 1413997 <sup>1)</sup> / 1413996 <sup>2)</sup> / <b>Socket:</b> 1414004 <sup>1)</sup> / 1414003 <sup>2)</sup>									
<b>Pin:</b> 1413999 <sup>1)</sup> / 1413998 <sup>2)</sup> / <b>Socket:</b> 1414020 <sup>1)</sup> / 1414005 <sup>2)</sup>									
<b>Socket:</b> 1419630 <sup>5)</sup>									
<b>Socket:</b> 1419631 <sup>5)</sup>									
<b>Socket:</b> 1419633 <sup>5)</sup>									
<b>Socket:</b> 1419634 <sup>5)</sup>									
Black	Blue	Water blue	Red	Yellow	Green	Violet	Orange		
1419697	1417782	1417783	1417784	1417785	1417787	1417788	1417789		
<b>Pin:</b> 1551493 <sup>4)</sup> / <b>Socket:</b> 1552243 <sup>4)</sup>									
<b>Pin:</b> 1416145 <sup>4)</sup> / 1417984 <sup>5)</sup> / <b>Socket:</b> 1416144 <sup>4)</sup> / 1417989 <sup>5)</sup>									
<b>Pin:</b> 1436709 <sup>3)</sup> / <b>Socket:</b> 1432460 <sup>3)</sup>									
<b>Pin:</b> 1437892 <sup>5)</sup> / <b>Socket:</b> 1437889 <sup>5)</sup>									

\* Contact carrier with assembly pad

Signal – M12, solder connection, PCB mounting		4-pos.			
For reflow soldering processes	Coding	<b>A</b>		<b>D</b>	
	Rated voltage	250 V		250 V	
	Nominal current	4 A		4 A	
 Web code: #0215	Pin assignment	<b>Pin</b>	<b>Socket</b>	<b>Pin</b>	<b>Socket</b>
					
<b>Two-piece, SMD contact carrier</b>					
	<b>Straight, SMD, in tray</b>	1411924*	1411907	1411925*	1411912
	<b>Straight, SMD, on reel</b>	1411982*	1411974	1411983*	1411975
	<b>Straight, shielded, SMD, in tray,</b> additional gasket for the device when not plugged in	1411955*	1411949	1411956*	1411950
	<b>Straight, shielded, SMD, on reel,</b> additional gasket for the device when not plugged in	1412010*	1412004	1412011*	1412005
	<b>Straight, SMD, in tray,</b> additional gasket for the device when not plugged in	1411941*	1411935	1411942*	1411936
	<b>Straight, SMD, on reel,</b> additional gasket for the device when not plugged in	1411996*	1411990	1411997*	1411991
<b>Two-piece, housing screw connections for SMD contact carriers</b>					
	<b>Screw versions,</b> rear mounting, M15 x 1 screw fastening				
	<b>SPEEDCON screw versions,</b> rear mounting, M15 x 1 screw fastening				
	<b>Clip-in versions,</b> tolerance-compensating, rear snap-in mounting, threaded sleeve	For housing panel thickness 0.9 ... 1.6 mm			
		For housing panel thickness 1.6 ... 2.3 mm			
		For housing panel thickness 2.3 ... 3.0 mm			
	<b>Fixing sleeve, can be used universally with any threaded sleeve</b>	Color			
	<b>Screw versions,</b> front mounting, M14 x 1 screw fastening				
	M14 x 1 flat nut				
	<b>Press-in versions,</b> front mounting				

<sup>2)</sup> Distance from PCB upper edge to housing front panel rear edge: 6 mm













<sup>3)</sup> Distance from PCB upper edge to housing front panel outer edge: 9 mm


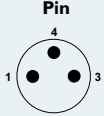
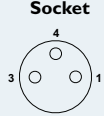






5-pos.		8-pos.		12-pos.		17-pos.			
A	B	A	B	A	B	A	B		
60 V	60 V	30 V	30 V	30 V	30 V	30 V	30 V		
4 A	4 A	2 A	2 A	1.5 A	1.5 A	1.5 A	1.5 A		
1411926*	1411913	1411927*	1411914	1411928*	1411915	1411929*	1411916	1411930*	1411917
1411984*	1411976	1411985*	1411977	1411986*	1411978	1411987*	1411979	1411988*	1411980
1411957*	1411951	1411958*	1411952	1411959*	1411953	1411960*	1411954	1411961*	1411966 <sup>1)</sup>
1412012*	1412006	1412013*	1412007	1412014*	1412008	1412015*	1412009	1412016*	1412018 <sup>1)</sup>
1411943*	1411937	1411944*	1411938	1411945*	1411939	1411946*	1411940	1411947*	—
1411998*	1411992	1411999*	1411993	1412000*	1411994	1412001*	1411995	1412002*	—
<b>Pin: 1414000<sup>2)</sup> / Socket: 1414021<sup>2)</sup></b>									
<b>Pin: 1414002<sup>2)</sup> / Socket: 1414023<sup>2)</sup></b>									
<b>Socket: 1419569<sup>3)</sup></b>									
<b>Socket: 1419570<sup>3)</sup></b>									
<b>Socket: 1419571<sup>3)</sup></b>									
Black	Water blue	Green	Violet						
1419568	1419565	1419566	1419567						
<b>Pin: 1412078<sup>3)</sup> / Socket: 1412079<sup>3)</sup></b>									
1412077									
<b>Pin: 1412080<sup>3)</sup> / Socket: 1412081<sup>3)</sup></b>									







\* Contact carrier with assembly pad <sup>1)</sup> without additional gasket for the device when not plugged in

Signal – M8, with litz wires		3-pos.	
Pre-assembled with 0.5 m long litz wires	Coding	<b>A</b>	
	Rated voltage	50 V AC / 60 V DC	
	Nominal current	4 A	
	Conductor cross section	0.25 mm <sup>2</sup>	
 Web code: #0216	Pin assignment		
<b>Front mounting</b>			
	M8 x 0.5 fastening thread	1500334	1500350
	M8 flat nut		
	M10 fastening thread	–	–
<b>Rear mounting</b>			
	M8 x 1 fastening thread	1453478	–
	M10 fastening thread	–	1456080
	M12 fastening thread	–	1453449
Signal – M8, solder connection		3-pos.	
For wave soldering processes	Coding	<b>A</b>	
	Rated voltage	50 V AC / 60 V DC	
	Nominal current	4 A	
 Web code: #0218	Pin assignment		
<b>Rear mounting, one-piece</b>			
	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
<b>Rear mounting, two-piece</b>			
	M8 fastening thread, straight	–	1524776
	M8 fastening thread, angled	1440070	1524788










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 <sup>2</sup>		0.14 mm <sup>2</sup>		0.14 mm <sup>2</sup>	
Pin	Socket	Pin	Socket	Pin	Socket
					
1500347	1500363	1542664	1542677	-	-
1504071					
-	-	-	-	1424232	1424231
1453481	-	1453494	-	1424230	-
-	1456093	-	1456103	-	-
-	1453452	-	1453465	-	-
4-pos.		6-pos.		8-pos.	
A		A		A	
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	
Pin	Socket	Pin	Socket	Pin	Socket
					
1694347	-	1436521	-	1424238	-
-	1694376	-	1436534	-	1424237
1456019	-	1456022	-	1424236	-
1456048	-	1424244	-	-	-
-	1456129	-	1456132	-	1424235
-	1456158	-	1424243	-	-
-	1524789	-	-	-	-
1440096	1526169	-	-	-	-

Signal – M8, solder connection, PCB mounting		3-pos.	
For reflow soldering processes	Coding	<b>A</b>	
	Rated voltage	50 V AC / 60 V DC	
	Nominal current	4 A	
 Web code: #0219	Pin assignment		
		Two-piece, SMD contact carrier	
	Straight, SMD, in tray	1412225*	1412220
	Straight, SMD, on reel	1412248*	1412243
	Straight, shielded, SMD, in tray, additional gasket for the device when not plugged in	1412240*	1412235
	Straight, shielded, SMD, on reel, additional gasket for the device when not plugged in	1412263*	1412257
	Straight, SMD, in tray, additional gasket for the device when not plugged in	1412233*	1412227
	Straight, SMD, on reel, additional gasket for the device when not plugged in	1412255*	1412250
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		
	M10 x 0.75 flat nut		
	Press-in versions for front mounting		

<sup>1)</sup> Distance from PCB upper edge to housing front panel rear edge: 6 mm  
<sup>2)</sup> Distance from PCB upper edge to housing front panel outer edge: 9 mm

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	
Pin	Socket	Pin	Socket	Pin	Socket
					
1412226*	1412221	–	1412223	–	1412224
1412249*	1412244	–	1412246	–	1412247
1412241*	1412236	–	1412238	–	1412239
1412264*	1412258	–	1412261	–	1412262
1412234*	1412228	–	1412230	–	1412232
1412256*	1412251	–	1412253	–	1412254
<b>Pin: 1412505<sup>1)</sup> / Socket: 1412506<sup>1)</sup></b>					
<b>Pin: 1412502<sup>2)</sup> / Socket: 1412504<sup>2)</sup></b>					
1412508					
<b>Pin: 1412500<sup>2)</sup> / Socket: 1412501<sup>2)</sup></b>					

\* Contact carrier with assembly pad

Signal – M5		3-pos.		4-pos.	
	<b>Coding</b>	<b>A</b>		<b>A</b>	
	<b>Rated voltage</b>	60 V		60 V	
	<b>Nominal current</b>	1 A		1 A	
	<b>Conductor cross section</b>	0.14 mm <sup>2</sup>		0.14 mm <sup>2</sup>	
 Web code: #0220	<b>Pin assignment</b>	<b>Pin</b>	<b>Socket</b>	<b>Pin</b>	<b>Socket</b>
					
<b>Front mounting, pre-assembled with 0.5 m long litz wires</b>					
 	<b>M5 fastening thread</b>	1530582	1530605	1530595	1530618
	Flat nut with M5 thread	1535901			
<b>Rear mounting, one-piece for wave soldering processes</b>					
 	<b>M5 fastening thread</b>	1530621	1530647	1530634	1530650
	Flat nut with M5 thread	1535901			

Data – M12 for networks		4-pos.		8-pos.			
	<b>Coding</b>	<b>D</b>		<b>A</b>			
	<b>Rated voltage</b>	250 V		30 V			
	<b>Nominal current</b>	4 A		2 A			
	<b>Conductor cross section</b>	0.14/0.34 mm <sup>2</sup>		0.14 mm <sup>2</sup>			
 <b>Webcode: #0222</b>	<b>Pin assignment</b>	<b>Pin</b>	<b>Socket</b>	<b>Pin</b>	<b>Socket</b>		
							
<b>Front/screw mounting, with assembled cable</b>							
	<b>Ethernet</b>	<b>M16 x 1.5, can be positioned, water blue, cable type 93E</b>	2 m	–	<b>1405837</b>	–	–
<b>Rear/screw mounting, with assembled cable</b>							
	<b>Ethernet</b>	<b>M16 x 1.5, water blue, cable type 93E</b>	2 m	–	<b>1405866</b>	–	–
		<b>M16 x 1.5, water blue, cable type 94B</b>	5 m	–	–	–	<b>1407877</b>
		<b>M16 x 1.5, water blue, cable type 94C</b>	2 m	–	–	–	<b>1412820</b>
<b>Rear/screw mounting, for wave soldering processes</b>							
	<b>Ethernet</b>	<b>M16 x 1.5, one-piece, contact carrier, water blue</b>		<b>1456514</b>	<b>1456527</b>	–	–
<b>Rear/screw mounting, with assembled cable</b>							
 		<b>Pg9, green, cable type 93B</b>	0.5 m	<b>1437805</b>	<b>1437766</b>	–	–
			1 m	<b>1437818</b>	<b>1437779</b>	–	–
			2 m	<b>1437821</b>	<b>1437782</b>	–	–
			5 m	<b>1437834</b>	<b>1437795</b>	–	–
		<b>M16 x 1.5, green, cable type 93C</b>	2 m	–	<b>1416209</b>	–	–
	<b>M16 x 1.5, green, cable type 93R</b>	2 m	–	<b>1416263</b>	–	–	
<b>Rear/screw mounting, for wave soldering processes</b>							
 		<b>M16 x 1.5, one-piece, contact carrier, green</b>		<b>1456556</b>	<b>1456569</b>	–	–

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

Data – M12 for networks		8-pos.	8-pos.	
	<b>Coding</b>	<b>X (CAT6<sub>A</sub>)</b>	<b>Y (hybrid)</b>	
	<b>Rated voltage</b>	50 V AC / 60 V DC	30 V	
	<b>Nominal current</b>	0.5 A	0.5 A / 6 A	
	<b>Conductor cross section</b>	0.25 mm <sup>2</sup>	0.14/0.5 mm <sup>2</sup>	
 <b>Web code: #0224</b>	<b>Pin assignment</b>	<b>Socket</b>	<b>Socket</b>	
				
<b>Rear/screw mounting, with assembled cable</b>				
	<b>Ethernet</b> M16 x 1.5, water blue, cable type 94F	<b>0.5 m</b>	<b>1424135</b>	–
		<b>1 m</b>	<b>1424148</b>	–
		<b>2 m</b>	<b>1424151</b>	–
		<b>5 m</b>	<b>1424164</b>	–
	<b>Hybrid</b> M16 x 1.5, black, cable type 94H	<b>0.5 m</b>	–	<b>1407504</b>
		<b>1 m</b>	–	<b>1407505</b>
		<b>2 m</b>	–	<b>1407506</b>
		<b>5 m</b>	–	<b>1407507</b>
<b>Rear/screw mounting, pre-assembled with 0.5 m long litz wires</b>				
	<b>Hybrid</b> M16 x 1,5	–	<b>1407618</b>	
<b>Rear/screw mounting, for wave soldering processes</b>				
	<b>Ethernet Hybrid</b> M16 x 1.5, one-piece, wave soldering	<b>1424177</b>	<b>1407503</b>	
	<b>Pg9, one-piece, wave soldering</b>	<b>1404741</b>	–	
<b>Two-piece, contact carrier for wave and reflow soldering processes</b>				
	<b>Ethernet</b> Straight, shielded, <b>THR, in blister pack</b>	<b>1402457</b>	–	
	Straight, shielded, <b>THR, on reel</b>	<b>1413446*</b>	–	
	Straight, shielded, <b>SMD, in tray</b>	<b>1411964*</b>	–	
	Angled, shielded, <b>wave soldering</b>	<b>1424180</b>	–	
	<b>Hybrid</b> Straight, shielded, <b>THR, in blister pack</b>	–	<b>1405225</b>	
	Straight, shielded, <b>THR, on reel</b>	–	<b>1413445*</b>	
	Straight, shielded, <b>SMD, in tray</b>	–	<b>1411965*</b>	
	Angled, shielded, <b>wave soldering</b>	–	<b>1424193</b>	

Housing screw connections for THR and wave soldering contact carriers, see Page 22.

Housing screw connections for SMD contact carriers, see Page 24.

\* Contact carrier with assembly pad













Data – M12 for networks		4-pos.		8-pos.		
	<b>Coding</b>	<b>D</b>		<b>A</b>		
	<b>Rated voltage</b>	250 V		30 V		
	<b>Nominal current</b>	4 A		2 A		
	<b>Conductor cross section</b>	0.14/0.34 mm <sup>2</sup>		0.14 mm <sup>2</sup>		
 <b>Web code: #0226</b>	<b>Pin assignment</b>	<b>Pin</b>	<b>Socket</b>	<b>Pin</b>	<b>Socket</b>	
						
<b>Rear/screw mounting, with assembled cable</b>						
 	<b>M16 x 1.5, red, cable type 93K</b>	<b>0.5 m</b>	<b>1419158</b>	<b>1419154</b>	–	–
		<b>1 m</b>	<b>1419159</b>	<b>1419155</b>	–	–
		<b>2 m</b>	<b>1419160</b>	<b>1419156</b>	–	–
		<b>5 m</b>	<b>1419161</b>	<b>1419157</b>	–	–
<b>Rear/screw mounting, for wave soldering processes</b>						
 	<b>M16 x 1.5, one-piece, contact carrier, red</b>		<b>1457979</b>	<b>1457966</b>	–	–
<b>Rear/screw mounting, with assembled cable</b>						
 	<b>M16 x 1.5, green, cable type 93G</b>	<b>0.5 m</b>	<b>1419138</b>	<b>1419134</b>	–	–
		<b>1 m</b>	<b>1419139</b>	<b>1419135</b>	–	–
		<b>2 m</b>	<b>1419140</b>	<b>1419136</b>	–	–
		<b>5 m</b>	<b>1419141</b>	<b>1419137</b>	–	–
<b>Rear/screw mounting, for wave soldering processes</b>						
 	<b>M16 x 1.5, one-piece, contact carrier, green</b>		<b>1456556</b>	<b>1456569</b>	–	–
<b>Rear/screw mounting, with assembled cable</b>						
 	<b>M16 x 1.5, black, cable type 970</b>	<b>0.5 m</b>	–	–	<b>1429059</b>	<b>1429091</b>
		<b>1 m</b>	–	–	<b>1429062</b>	<b>1429101</b>
		<b>2 m</b>	–	–	<b>1429075</b>	<b>1429114</b>
		<b>5 m</b>	–	–	<b>1429088</b>	<b>1429127</b>









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

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


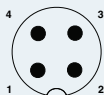
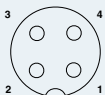







See the Signal – M12 section for additional 5-pos., B-coded connectors

Data – M12 for fieldbuses		5-pos.		
	<b>Coding</b>	<b>B</b>		
	<b>Rated voltage</b>	60 V		
	<b>Nominal current</b>	4 A		
	<b>Conductor cross section</b>	0.34 mm <sup>2</sup>		
 <b>Web code: #0230</b>	<b>Pin assignment</b>	<b>Pin</b> 	<b>Socket</b> 	
		<b>Front/screw mounting, with assembled cable</b>		
 	<b>M16 x 1.5, green, cable type 910</b>	0.5 m	<a href="#">1529629</a>	<a href="#">1529742</a>
		1 m	<a href="#">1530223</a>	<a href="#">1529755</a>
		2 m	<a href="#">1529726</a>	<a href="#">1529768</a>
		5 m	<a href="#">1529739</a>	<a href="#">1529771</a>
<b>Rear/screw mounting, with assembled cable</b>				
 	<b>Pg9, green, cable type 900</b>	0.5 m	<a href="#">1437643</a>	<a href="#">1437601</a>
		1 m	<a href="#">1437656</a>	<a href="#">1437614</a>
		2 m	<a href="#">1437669</a>	<a href="#">1437627</a>
		5 m	<a href="#">1437672</a>	<a href="#">1437630</a>
	Pg9 EMC nut	<a href="#">1440177</a>		
	<b>M16 x 1.5, green, cable type 900</b>	0.5 m	<a href="#">1534504</a>	<a href="#">1534546</a>
		1 m	<a href="#">1534517</a>	<a href="#">1534559</a>
		2 m	<a href="#">1534520</a>	<a href="#">1534562</a>
		5 m	<a href="#">1534533</a>	<a href="#">1534575</a>
	M16 x 1.5 EMC nut	<a href="#">1440164</a>		
<b>Rear/screw mounting, for wave soldering processes</b>				
 	<b>M16 x 1.5, one-piece, contact carrier, green</b>	<a href="#">1456572</a>	<a href="#">1456585</a>	
	M16 x 1.5 EMC nut	<a href="#">1440164</a>		





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



Data – M12 for fieldbuses		5-pos.		
	<b>Coding</b>	<b>A</b>		
	<b>Rated voltage</b>	60 V		
	<b>Nominal current</b>	4 A		
	<b>Conductor cross section</b>	0.25/0.34 mm <sup>2</sup>		
 <b>Web code: #0231</b>	<b>Pin assignment</b>	<b>Pin</b>	<b>Socket</b>	
				
<b>Front/screw mounting, with assembled cable</b>				
 	<b>M16 x 1.5, violet, cable type 920</b>	<b>0.5 m</b>	<b>1525623</b>	<b>1525678</b>
		<b>1 m</b>	<b>1525636</b>	<b>1525681</b>
		<b>2 m</b>	<b>1525649</b>	<b>1525694</b>
		<b>5 m</b>	<b>1525652</b>	<b>1525704</b>
<b>Rear/screw mounting, with assembled cable</b>				
 	<b>Pg9, violet, cable type 920</b>	<b>0.5 m</b>	<b>1437562</b>	<b>1437520</b>
		<b>1 m</b>	<b>1437575</b>	<b>1437533</b>
		<b>2 m</b>	<b>1437588</b>	<b>1437546</b>
		<b>5 m</b>	<b>1437591</b>	<b>1437559</b>
		<b>Pg9 EMC nut</b>	1440177	
	<b>M16 x 1.5, violet, cable type 920</b>	<b>0.5 m</b>	<b>1534423</b>	<b>1534465</b>
		<b>1 m</b>	<b>1534436</b>	<b>1534478</b>
		<b>2 m</b>	<b>1534449</b>	<b>1534481</b>
		<b>5 m</b>	<b>1534452</b>	<b>1534494</b>
		<b>M16 x 1.5 EMC nut</b>	1440164	
	<b>Rear/screw mounting, for wave soldering processes</b>			
	 	<b>M16 x 1.5, one-piece, contact carrier, violet</b>	<b>1456491</b>	<b>1456501</b>
		<b>M16 x 1.5 EMC nut</b>	1440164	
	<b>Pg9, one-piece, stainless steel (1.4404)</b>	<b>1554746</b>	<b>1554733</b>	
	<b>M16 x 1.5, one-piece, contact carrier, blue</b>	<b>1457953</b>	<b>1457940</b>	



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

Data – M12 for fieldbuses		4-pos.		
	<b>Coding</b>	<b>A</b>		
	<b>Rated voltage</b>	250 V		
	<b>Nominal current</b>	4 A		
	<b>Conductor cross section</b>	0.34 mm <sup>2</sup>		
 <b>Web code: #0232</b>	<b>Pin assignment</b>	<b>Pin</b> 	<b>Socket</b> 	
		<b>Rear/screw mounting, with assembled cable</b>		
 	<b>M16 x 1.5, red, cable type 990</b>	<b>0.5 m</b>	–	<a href="#">1559819</a>
		<b>1 m</b>	–	<a href="#">1559822</a>
		<b>2 m</b>	–	<a href="#">1559835</a>
		<b>5 m</b>	–	<a href="#">1559848</a>
	<b>Pg9, red, cable type 990</b>	<b>0.5 m</b>	–	<a href="#">1437847</a>
		<b>1 m</b>	–	<a href="#">1437850</a>
		<b>2 m</b>	–	<a href="#">1437863</a>
		<b>5 m</b>	–	<a href="#">1437876</a>
<b>Rear/screw mounting, for wave soldering processes</b>				
 	<b>M16 x 1.5, one-piece, contact carrier, red</b>		<a href="#">1457856</a>	<a href="#">1457869</a>
<b>Front/screw mounting, pre-assembled with 0.5 m long litz wires</b>				
 	<b>Pg9, shielded</b>	<a href="#">1431432</a>	<a href="#">1431429</a>	
	<b>Pg9 flat nut</b>		<a href="#">1504084</a>	
<b>Rear/screw mounting, for wave soldering processes, shielded</b>				
	<b>M16 x 1.5, one-piece, contact carrier, yellow</b>		<a href="#">1457872</a>	<a href="#">1457885</a>

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

Data – M12 for USB		USB	
 Web code: #0235	Pin assignment		
<b>Rear/screw mounting, for wave soldering processes</b>			
 	<b>M12 x 1, Mini-B USB 2.0</b>	<b>1440711</b>	-

Data – M12 for FO			FO
 Web code: #0236			
<b>Rear/screw mounting, for wave soldering processes</b>			
	<b>M16 x 1.5, fiber optic transceiver</b>	-	<b>1416716</b>

Data – M8 for fieldbuses		5-pos.		
	<b>Coding</b>	<b>B</b>		
	<b>Rated voltage</b>	30 V AC / 30 V DC		
	<b>Nominal current</b>	3 A		
	<b>Conductor cross section</b>	0.25 mm <sup>2</sup>		
 <b>Web code: #0237</b>	<b>Pin assignment</b>	<b>Pin</b> 	<b>Socket</b> 	
		<b>Front mounting, pre-assembled with 0.5 m long litz wires</b>		
  	<b>M10 fastening thread</b>	1424234	1424233	
<b>Rear mounting, for wave soldering processes</b>				
  	<b>M8 fastening thread, straight, shielded</b>	1424242	–	
	<b>M8 fastening thread, angled, shielded</b>	1424240	–	
	<b>M10 fastening thread, straight, shielded</b>	–	1424241	
	<b>M10 fastening thread, angled, shielded</b>	–	1424239	
<b>Two-piece, SMD contact carrier for reflow soldering processes</b>				
  	<b>Straight, SMD in tray</b>	–	1412222	
	<b>Straight, SMD on reel</b>	–	1412245	
	<b>Straight, SMD in tray, additional gasket for the device when not plugged in</b>		–	1412229
		<b>Shielded</b>	–	1412237
	<b>Straight, SMD on reel, additional gasket for the device when not plugged in</b>		–	1412252
		<b>Shielded</b>	–	1412259

Housing screw connections for SMD contact carriers, see Page 28.

Power – M12 up to 16 A / 630 V		3 (2+PE)-pos.		4 (3+PE)-pos.	
	<b>Coding</b>	<b>S (AC)</b>		<b>S (AC)</b>	
	<b>Rated voltage</b>	630 V		630 V	
	<b>Nominal current</b>	16 A		12 A	
	<b>Conductor cross section</b>	1.5 mm <sup>2</sup>		1.5 mm <sup>2</sup>	
 <b>Web code: #0238</b>	<b>Pin assignment</b>	<b>Pin</b>	<b>Socket</b>	<b>Pin</b>	<b>Socket</b>
					
<b>Front mounting, pre-assembled with 0.2 / 0.5 m long litz wires</b>					
	<b>M16 x 1.5 fastening thread, one-piece</b>	1411655 <sup>1)</sup>	1411654 <sup>1)</sup>	1424139 <sup>1)</sup>	1424137 <sup>1)</sup>
	M16 x 1.5 flat nut			1504097	
<b>New</b>	<b>M16 x 1.5 fastening thread, XL versions, wrench size 19</b>	<b>1.5 mm<sup>2</sup> litz wires</b>	–	–	1411607 <sup>1)</sup>
		<b>2.5 mm<sup>2</sup> litz wires</b>	–	–	–
	 <b>PROFINET-specified<sup>3)</sup>, 1.5 mm<sup>2</sup> litz wires</b>				
	<b>PROFINET-specified<sup>3)</sup>, 2.5 mm<sup>2</sup> litz wires</b>				
	M16 x 1.5 flat nut	–	–		
	<b>25 mm square flange, modular, mounting holes 4 x Ø 2.7 mm</b>	–	–	1424131	
	<b>Pre-assembled contact carrier, modular</b>	–	–	1424129 <sup>1)</sup>	–
<b>Rear mounting, pre-assembled with 0.2 / 0.5 m long litz wires</b>					
	<b>M16 x 1.5 fastening thread, one-piece</b>	1411653 <sup>1)</sup>	1411652 <sup>1)</sup>	1424132 <sup>1)</sup>	1424133 <sup>1)</sup>
<b>New</b>	<b>M16 x 1.5 fastening thread, XL versions, wrench size 19</b>	<b>1.5 mm<sup>2</sup> litz wires</b>	–	–	1411603 <sup>1)</sup>
		<b>2.5 mm<sup>2</sup> litz wires</b>	–	–	–
	 <b>PROFINET-specified<sup>3)</sup>, 1.5 mm<sup>2</sup> litz wires</b>				
	<b>PROFINET-specified<sup>3)</sup>, 2.5 mm<sup>2</sup> litz wires</b>				

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

<sup>1)</sup> with 0.5 m long litz wires / <sup>2)</sup> with 0.2 m long litz wires

<sup>3)</sup> Items can be delivered in the 2nd quarter of 2017

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



4-pos.		4-pos.		5 (4+FE)-pos.		5 (4+PE)-pos.		6 (5+PE)-pos.	
T (DC)		L (DC)		L (DC)		K (AC)		M (AC)	
60 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	
1.5 mm <sup>2</sup>		1.5 mm <sup>2</sup> / 2.5 mm <sup>2</sup>		1.5 mm <sup>2</sup> / 2.5 mm <sup>2</sup>		1.5 mm <sup>2</sup> / 2.5 mm <sup>2</sup>		1.5 mm <sup>2</sup>	
Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
1424140 <sup>1)</sup>	1424138 <sup>1)</sup>	–	–	–	–	–	–	–	–
		–	–	–	–			–	–
1411608 <sup>1)</sup>	1411606 <sup>1)</sup>	–	–	–	–	1425635 <sup>2)</sup>	1425636 <sup>2)</sup>	1415300 <sup>2)</sup>	1415301 <sup>2)</sup>
–	–	–	–	1415295 <sup>2)</sup>	1415296 <sup>2)</sup>	1415291 <sup>2)</sup>	1415292 <sup>2)</sup>	–	–
		1425631 <sup>2)</sup>	1425632 <sup>2)</sup>	1425627 <sup>2)</sup> *	1425628 <sup>2)</sup> *				
		1425586 <sup>2)</sup>	1425587 <sup>2)</sup>	1425582 <sup>2)</sup> *	1425583 <sup>2)</sup> *				
1504097									
1424131	–	–	–	–	–			–	–
1424130 <sup>1)</sup>	–	–	–	–	–			–	–
1424136 <sup>1)</sup>	1424134 <sup>1)</sup>	–	–	–	–			–	–
1411604 <sup>1)</sup>	1411599 <sup>1)</sup>	–	–	–	–	1425637 <sup>2)</sup>	1425638 <sup>2)</sup>	1415302 <sup>2)</sup>	1415303 <sup>2)</sup>
–	–	–	–	1415297 <sup>2)</sup>	1415299 <sup>2)</sup>	1415293 <sup>2)</sup>	1415294 <sup>2)</sup>	–	–
		1425633 <sup>2)</sup>	1425634 <sup>2)</sup>	1425629 <sup>2)</sup> *	1425630 <sup>2)</sup> *				
		1425588 <sup>2)</sup>	1425589 <sup>2)</sup>	1425584 <sup>2)</sup> *	1425585 <sup>2)</sup> *				

Power – M12 up to 16 A / 630 V		4 (3+PE)-pos.	4-pos.		
For reflow soldering processes	Coding	<b>S (AC)</b>	<b>T (DC)</b>		
	Rated voltage	630 V	60 V		
	Nominal current	12 A	12 A		
 Web code: #0240	Pin assignment	Pin	Socket	Pin	Socket
					
<b>Two-piece, THR contact carrier</b>					
	<b>Straight, THR, in blister pack</b>	1406410	1406409	1406396	1406411
	<b>Straight, THR, on reel</b>	1418343	1418344	1418339*	1418340*
	<b>Straight, shielded, THR, in blister pack</b>	–	–	1406397	1406412
	<b>Straight, shielded, THR, on reel</b>	–	–	1418341*	1418342*
<b>Two-piece SMD contact carriers</b>					
	<b>Straight, SMD, in tray</b>	–	–	1411931*	1411918
	<b>Straight, SMD, on reel</b>	–	–	1411989*	1411981
	<b>Straight, shielded, SMD, in tray</b>	–	–	–	1411967
	<b>Straight, shielded, SMD, on reel</b>	–	–	–	1412019
	<b>Straight, SMD, in tray,</b> additional gasket for the device when not plugged in	–	–	1411948*	–
	<b>Straight, SMD, on reel,</b> additional gasket for the device when not plugged in	–	–	1412003*	–
	<b>Straight, shielded, SMD, in tray,</b> additional gasket for the device when not plugged in	–	–	1411962*	–
	<b>Straight, shielded, SMD, on reel,</b> additional gasket for the device when not plugged in	–	–	1412017*	–

Housing screw connections for S and T-coded THR contact carriers, see Page 22.

Housing screw connections for T-coded SMD contact carriers, see Page 24.

\* Contact carrier with assembly pad

Power – M12 up to 16 A / 630 V		4-pos.	5 (4+FE)-pos.	5 (4+PE)-pos.	6 (5+PE)-pos.					
For wave and reflow soldering processes	Coding	L (DC)	L (DC)	K (AC)	M (AC)					
	Rated voltage	63 V	63 V	630 V	630 V					
	Nominal current	16 A	16 A	16 A	8 A					
 <b>IEC 60320</b> M12 up to 16 A / 630 V	Pin assignment	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	
										
<b>One-piece, wave soldering, rear / screw mounting</b>										
<b>New</b> 	<b>M16 x 1.5, XL versions, wrench size 19</b>   <b>PROFINET-specified</b>	–	–	1415337	1415338	–	–	–	–	
		1425592 <sup>3)</sup>	1425593 <sup>3)</sup>	1425590 <sup>3), 4)</sup>	1425591 <sup>3), 4)</sup>	–	–	–	–	
<b>Two-piece, THR contact carrier</b>										
<b>New</b> 	<b>Straight, THR, in tray*</b>   <b>PROFINET-specified</b>	–	–	1420817	1420818	1420819	1420821	1420822	1420823	
		1425603 <sup>3)</sup>	1425604 <sup>3)</sup>	1425594 <sup>3), 4)</sup>	1425595 <sup>3), 4)</sup>	–	–	–	–	
	<b>Straight, THR, on reel*</b>   <b>PROFINET-specified</b>	–	–	1420828	1420829	1420830	1420831	1420832	1420833	
		1425605 <sup>3)</sup>	1425606 <sup>3)</sup>	1425599 <sup>3), 4)</sup>	1425600 <sup>3), 4)</sup>	–	–	–	–	
	<b>Straight, shielded, THR, in tray*</b>   <b>PROFINET-specified</b>	–	–	1421314 <sup>3)</sup>	1421315 <sup>3)</sup>	–	–	–	–	
		1425639	1425640	1425597 <sup>3), 4)</sup>	1425598 <sup>3), 4)</sup>	–	–	–	–	
	<b>Straight, shielded, THR, on reel*</b>   <b>PROFINET-specified</b>	–	–	1421317 <sup>3)</sup>	1421318 <sup>3)</sup>	–	–	–	–	
		1425641	1425642	1425601 <sup>3), 4)</sup>	1425602 <sup>3), 4)</sup>	–	–	–	–	
<b>Two-piece, housing screw connections for K, L and M-coded THR contact carriers</b>										
<b>New</b> 	<b>Front mounting, screw fastening M14 x 1</b>	<b>Pin: 1420824<sup>2)</sup> / Socket: 1420825<sup>2)</sup></b>								
		M14 x 1 flat nut	1412077							
		<b>Rear mounting, screw fastening M15 x 1</b>	<b>Pin: 1420826<sup>1)</sup> / Socket: 1420827<sup>1)</sup></b>							

K and M-coding: PE applied to housing.

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

\* Contact carrier with assembly pad

<sup>1)</sup> Distance from PCB upper edge to housing front panel rear edge: 6 mm

<sup>2)</sup> Distance from PCB upper edge to housing front panel outer edge: 9 mm

<sup>3)</sup> Items can be delivered in the 2nd quarter of 2017

<sup>4)</sup> Deviation from the standard color of black: gray contact carrier

## Signal – M12 connectors for assembly



Web code: #0242

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


## Signal – M12 connectors for assembly

**i** Web code: #0243

	Coding	Design	4-pos.		5-pos.		8-pos.	
			Pin	Socket	Pin	Socket	Pin	Socket
<b>Push-in connection</b>								
<b>New</b>								
	A	Straight	1424657	1424655	1424649	1424652	–	–
	A	Angled	1424654	1424656	1424651	1424653	–	–
<b>Push-in connection, shielded</b>								
<b>New</b>								
	A	Straight	1424666	1424668	1424658	1424660	–	–
	A	Angled	1424667	1424669	1424659	1424661	–	–
<b>IDC connection, conductor cross section: 0.14 mm<sup>2</sup> ... 0.34 mm<sup>2</sup></b>								
	A	Straight	1641714	1641701	–	–	–	–
	A	Straight	1521575	1521588	–	–	–	–
	A	Straight	1641691	1641688	–	–	–	–
<b>IDC connection, conductor cross section: 0.34 mm<sup>2</sup> ... 0.75 mm<sup>2</sup></b>								
	A	Straight	1641769	1641756	–	–	–	–
	A	Straight	1521591	1521601	–	–	–	–
	A	Straight	1641785	1641772	–	–	–	–
<b>IDC connection, conductor cross section: 0.14 mm<sup>2</sup> ... 0.5 / 0.75 mm<sup>2</sup>, shielded</b>								
	A	Straight	1413993	1413994	1413991	1413992	1414610	1414611

## Signal – M12 connectors for assembly, high-position

**i** Web code: #0245

	Coding	Design	Conductor cross section	8-pos.		12-pos.		17-pos.	
				Pin	Socket	Pin	Socket	Pin	Socket
<b>Piercecon® connection, conductor cross section: 0.14 / 0.25 / 0.34 / 0.5 mm<sup>2</sup></b>									
<b>New</b>									
	A	Straight	0.14 mm <sup>2</sup>	–	–	1559592	1559631	1559602	1559644
	A	Straight, shielded	0.14 mm <sup>2</sup>	1408429	1408435	1408438	1408440	1408441	1408444
			0.25 mm <sup>2</sup>	1408428	1408432	1408437	1408439	–	–
			0.34 mm <sup>2</sup>	1408427	1408431	–	–	–	–
			0.5 mm <sup>2</sup>	1408426	1408430	–	–	–	–
<b>Solder connection, conductor cross section: 0.08 mm<sup>2</sup> ... 0.25 mm<sup>2</sup>, shielded</b>									
	A	Straight		–	–	1404410	1404411	–	–
	A	Angled		–	–	1404412	1404413	–	–

## Signal – M8 connectors for assembly

**i** Web code: #0246


	Design	3-pos.		4-pos.	
		Pin	Socket	Pin	Socket
<b>Solder connection, conductor cross section: 0.08 mm<sup>2</sup> ... 0.25 mm<sup>2</sup></b>					
	Straight	1681156	1681172	1681169	1681185
	Angled	1699902	1529399	1554209	1513444
<b>Solder connection, conductor cross section: 0.08 mm<sup>2</sup> ... 0.25 mm<sup>2</sup>, shielded</b>					
	Straight	1506901	1506927	1506914	1506930
	Angled	1436453	1436479	1436466	1436482
<b>Screw connection, conductor cross section: 0.14 mm<sup>2</sup> ... 0.5 mm<sup>2</sup></b>					
	Straight	1501252	1506888	1501265	1506891
	Angled	1407583	1407582	1407585	1407584
<b>Screw connection, conductor cross section: 0.14 mm<sup>2</sup> ... 0.5 mm<sup>2</sup>, shielded</b>					
	Straight	1542884	1542907	1542897	1542910
<b>IDC connection, conductor cross section: 0.08 mm<sup>2</sup> ... 0.25 mm<sup>2</sup></b>					
	Straight	1441008	1441040	1441011	1441053
<b>IDC connection, conductor cross section: 0.25 mm<sup>2</sup> ... 0.5 mm<sup>2</sup></b>					
	Straight	1441024	1441066	1441037	1441079

## Data – M12 connectors for assembly

**i** Web code: #0249

	Fieldbuses/ networks	Design	4-pos.		5-pos.		8-pos.	
			Pin	Socket	Pin	Socket	Pin	Socket
<b>Push-in connection, shielded</b>								
	INTERBUS	Straight	–	–	1424674	1424676	–	–
		Angled	–	–	1424675	1424677	–	–
	PROFIBUS	Straight	–	–	1424678	1424680	–	–
		Angled	–	–	1424679	1424681	–	–
	DeviceNet™	Straight	–	–	1424670	1424672	–	–
		Angled	–	–	1424671	1424673	–	–
	PROFINET	Straight	1424682	1424684	–	–	–	–
		Angled	1424683	1424685	–	–	–	–
<b>IDC connection, shielded</b>								
	Ethernet	Straight	1411066	1411069	–	–	1421679	1421680
		Angled	1553624	1553637	–	–	1553653	1553666
	Ethernet CAT 6 <sub>A</sub>	Straight	–	–	–	–	1411043	1414586
		Straight	1411068	1411071	–	–	–	–
	PROFINET	Angled	1554539	1554542	–	–	–	–
		Straight	–	–	–	–	1411044	1414587
<b>IDC connection, shielded</b>								
			2 pos.					
			Pin	Socket				
	PROFIBUS	Straight	1413931	1413932	–	–	–	–
DeviceNet™	Straight	–	–	1422759	1422760	–	–	
<b>Piercecon® connection, shielded</b>								
	Ethernet CAT6 <sub>A</sub>	Straight	–	–	–	–	1417430	–
		Angled	–	–	–	–	1417443	–






## Power – M12 connectors for assembly

i Web code: #0252	Coding	Design	2+PE-pos. (AC)		3+PE-pos. (AC)		4-pos. (DC)	
			Pin	Socket	Pin	Socket	Pin	Socket
<b>Screw connection, conductor cross section up to 1.5 mm<sup>2</sup></b>								
	T	Straight	–	–	–	–	1404643	1404644
		Angled	–	–	–	–	1408988	1408989
	T	Straight, shielded	–	–	–	–	1424703	1424705
		Angled, shielded	–	–	–	–	1424704	1424706
	S	Straight	1419639	1419640	1404641	1404642	–	–
		Angled	1419641	1419642	1408985	1408987	–	–

## Signal – Cable connector with IDC

i Web code: #0243						
Conductor cross section [mm <sup>2</sup> ]	0.14 ... 0.34	0.34 ... 0.75	0.5 ... 1.5	0.14 ... 0.75		
Number of positions	Unshielded	Unshielded	Unshielded	Shielded		
3	–	–	1414702	–		
4	1641879	1642140	1414698	1414418		
5	–	–	1414742	1414417		
8	–	–	–	1414612		

## Data – Cable connector with IDC

i Web code: #0249						
Conductor cross section [mm <sup>2</sup> ]	0.14 ... 0.34	0.25 ... 0.5	0.14 ... 0.34	0.25 ... 0.5	0.25 ... 0.75	
	Ethernet CAT6 <sub>A</sub>	PROFINET CAT6 <sub>A</sub>	Ethernet 4-pos.	PROFINET 4-pos.	PROFIBUS	
	1414412	1414413	1414415	1414416	1420426	



## Signal – Cables with M8 or M12 connectors

**i** Web code: #0283



Cable length	Signal cable M8, 3-pos.	Signal cable M8, 4-pos.	Signal cable M12, 3-pos.	Signal cable M12, 4-pos.	Signal cable M12, 5-pos.	Signal cable M12, 5-pos. shielded
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### Straight plug, free cable end

3 m	1681677	1681790	1668027	1668056	1669770	1682744
5 m	1681680	1681800	1668030	1668069	1669783	1682731
10 m	1693584	1694143	1682566	1682993	1683361	1500732

### Straight socket, free cable end

3 m	1669725	1681855	1694499	1668111	1669835	1682948
5 m	1669628	1681868	1683510	1668124	1669848	1682951
10 m	1694101	1683484	1693034	1683002	1683374	1500758

### Straight plug, straight socket

0.3 m	1681907	–	–	1668357	1681583	–
0.6 m	1681910	–	–	1668360	1681596	–
1.5 m	1681923	–	–	1668373	1681606	–
3 m	1681936	–	–	1668386	1681619	–

### Angled socket, free cable end

3 m	1669741	1681884	1694512	1668234	1669864	1682977
5 m	1669631	1681897	1694525	1668247	1669877	1682980
10 m	1694169	1694172	1694538	1681389	1694541	1500761

Additional cables with connectors in sizes M5 to M40 for signals, data and power can be found at [phoenixcontact.com](http://phoenixcontact.com)

## Data – Network cables with M12 connectors

**i** Web code: #0284









Cable length	Ethernet X-coded	Ethernet D-coded	PROFINET D-coded	PROFIBUS B-coded	DeviceNet™/ CANopen® A-coded	CC-Link A-coded
<b>Straight plug, free cable end</b>						
1 m	1407467	1407356	1407495	–	–	–
2 m	1407468	1407357	1407496	1518025	1518177	1558328
5 m	1407469	1407358	1407497	1518038	1518180	1558331
10 m	1407470	1407359	1407498	1518041	1518193	1558344
15 m	–	–	–	–	–	1558357
Variable	1408648	1408713	1408640	1538050	1538115	–
<b>Straight socket, free cable end</b>						
1 m	–	1407380	1407528	–	–	–
2 m	–	1407381	1407529	1518067	1518216	1558360
5 m	–	1407382	1407530	1518070	1518229	1558373
10 m	–	1407383	1407531	1518083	1518232	1558386
15 m	–	–	–	1518096	1518245	1558399
Variable	–	1408697	1408623	1538076	1538131	–
<b>Straight plug, straight socket</b>						
0.3 m	–	–	–	1518106	1518258	1558409
0.5 m	–	–	–	1518119	1518261	–
0.6 m	–	–	–	–	–	1558412
1 m	–	1407400	1407553	1518122	1518274	1558425
2 m	–	1407401	1407554	1518135	1518287	1558438
5 m	–	1407402	1407555	1518148	1518290	1558441
10 m	–	1407403	1407556	1518151	1518300	1558454
15 m	–	–	–	1518164	1518313	1558467
Variable	–	1408692	1408617	1538092	1538157	–
<b>Straight plug, straight plug</b>						
1 m	1407483	1407376	1407524	–	–	–
2 m	1407484	1407377	1407525	–	–	–
5 m	1407485	1407378	1407526	–	–	–
10 m	1407486	1407379	1407527	–	–	–
Variable	1408644	1408706	1408634	1433252	1433294	–
<b>Termination resistors, M12 connector</b>				<b>PROFIBUS</b>	<b>DeviceNet™/ CANopen®</b>	<b>CC-Link</b>
				1507803	1507816	1558470

Additional cables with connectors in sizes M5 to M40 for signals, data and power can be found at [phoenixcontact.com](http://phoenixcontact.com)

## Performance cables with M12 connectors (PUR)

**i** Web code: #1081

						
Coding	S	T	L	L	K	M
Number of positions	3+PE	4	4	4+FE	4+PE	5+PE
Cross section	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>
Cable length			PROFINET-specified	PROFINET-specified		

### Straight plug, 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 socket, 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 socket, 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 plug, free cable end, shielded

3 m	1424105	1424121	–	–	1414871	1414954
5 m	1424245	1424122	–	–	1414876	1414958
10 m	1424107	1424123	–	–	1414880	1414962

### Straight socket, free cable end, shielded

3 m	1424097	1424113	–	–	1414789	1414911
5 m	1424098	1424114	–	–	1414805	1414919
10 m	1424099	1424115	–	–	1414822	1414927

### Angled socket, free cable end, shielded

3 m	1424101	1424117	–	–	1414785	1414908
5 m	1424102	1424118	–	–	1414801	1414917
10 m	1424103	1424128	–	–	1414818	1414925

Additional cables with connectors in sizes M5 to M40 for signals, data and power can be found at [phoenixcontact.com](http://phoenixcontact.com)

## Accessories

**i** Webcode: #0559

Size	M5		M8		M12		
	Plugs	Sockets	Plugs	Sockets	Plugs	Sockets	
<b>Locking screw</b>							
	Plastic	–	1533288	–	1682540	–	1680539
	Metal	–	–	–	–	–	1503302 <sup>1)</sup> 1414148 <sup>2)</sup>
	Stainless steel V4A	–	–	–	–	–	1555538
<b>Locking screw for SPEEDCON versions</b>							
	Plastic	–	–	–	–	–	1553129
<b>Sealing cap</b>							
	Plastic	–	–	–	–	1560251	–
	Metal	–	–	–	–	1430488	–
<b>Sealing elements for non-assigned housing cut-outs</b>							
	Sealing plug, plastic, for Pg9/Pg11					1670235	
	Locking screw, metal, M16 x 1.5					1453368	
<b>Plastic sealing caps and locking screws, with retaining strap</b>							
	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
<b>Metal sealing caps and locking screws, with fastening chain</b>							
	With Ø 16 mm fastening eye			–	–	1430491	1414147


<sup>1)</sup> With slotted screw head

<sup>2)</sup> With hexagonal screw head


## Accessories

 Web code: #0559

### EMC hexagonal nut with fine tothing for device connectors

	<p>With fine tothing facing inwards. This prevents visible scratch marks from appearing on the device surface.</p>	M12 x 1	1440151
		M16 x 1,5	1440164
		Pg9	1440177

### Seal for device connector

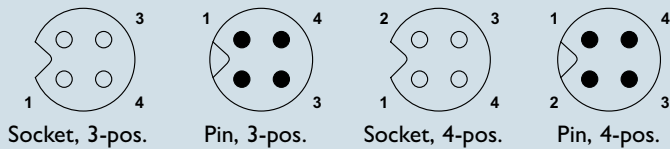
	Seal for M8 socket	1437070
	Flat gasket for M12 fastening thread	1424275
	Flat gasket for M16 fastening thread	1430394
	Flat gasket for Pg9 fastening thread	1556320

# Pin assignments and litz wire colors

## Signal

### M5 device connector

#### Pin assignments



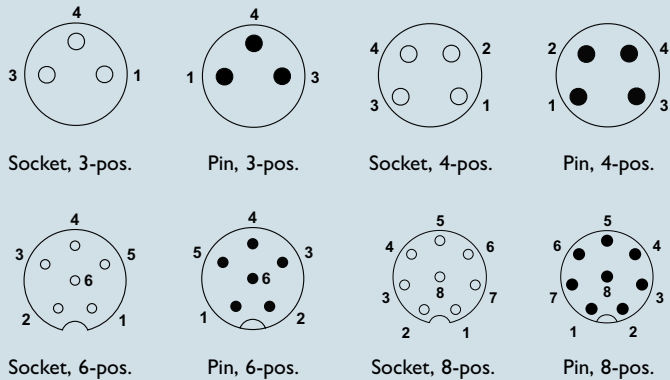
### Litz wire colors

Assignment: M5 pin/socket

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

### M8 device connector

#### Pin assignments



### Litz wire colors

Assignment: M8 pin/socket

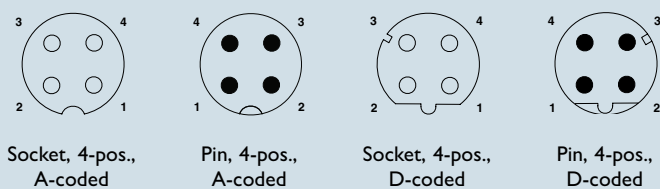
Pin	Wire color			
	3-pos.		4-pos.	
1	BN		BN	
2	–		WH	
3	BU		BU	
4	BK		BK	
5	–		–	
6	–		–	

Assignment: M8 pin/socket

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

### M12 device connector

#### Pin assignments



### Litz wire colors

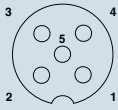
Assignment: M12 pin/socket

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

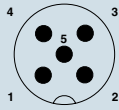
# Signal

## M12 device connector

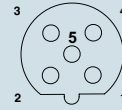
### Pin assignments



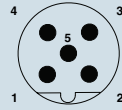
Socket, 5-pos.,  
A-coded



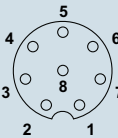
Pin, 5-pos.,  
A-coded



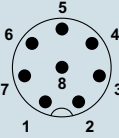
Socket, 5-pos.,  
B-coded



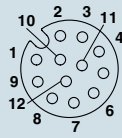
Pin, 5-pos.,  
B-coded



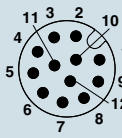
Socket, 8-pos.



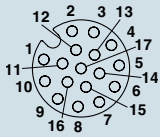
Pin, 8-pos.



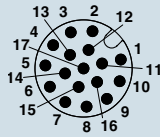
Socket, 12-pos.



Pin, 12-pos.



Socket, 17-pos.



Pin, 17-pos.

### Assignment: M12 pin/socket

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

## Litz wire colors

### Assignment: M12 pin/socket

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

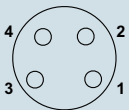
### Assignment: M12 pin/socket

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

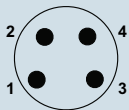
# Data

## M8 device connector

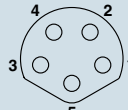
### Pin assignments



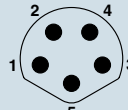
Socket, 4-pos.  
Ethernet



Pin, 4-pos.  
Ethernet



Socket, 5-pos.,  
DeviceNet™,  
B-coded



Pin, 5-pos.,  
DeviceNet™,  
B-coded

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

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

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

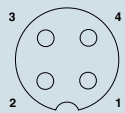
Pin	Wire color	Signal Ethernet
1	YE	TD+
2	OG	TD–
3	WH	RD+
4	BU	RD–

# Pin assignments and litz wire colors

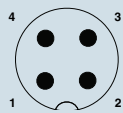
## Data

### M12 device connector

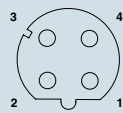
#### Pin assignments



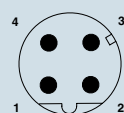
Socket, 4-pos.,  
A-coded



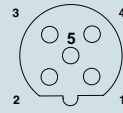
Pin, 4-pos.,  
A-coded



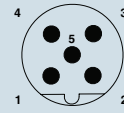
Socket, 4-pos.,  
D-coded



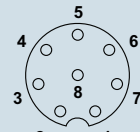
Pin, 4-pos.,  
D-coded



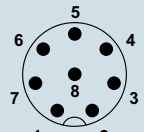
Socket, 5-pos.,  
B-coded



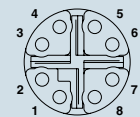
Pin, 5-pos.,  
B-coded



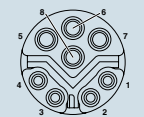
Socket, 8-pos.,  
A-coded



Pin, 8-pos.,  
A-coded



Socket, 8-pos.,  
X-coded



Socket, 8-pos.,  
Y-coded

#### Litz wire colors

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

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

Shield on housing

##### Assignment: CANopen®, 5-pos. A-coded

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

Shield on housing

##### Assignment: 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	<u>DO</u>
3	GY	DI
4	PK	<u>DI</u>
5	BN	COM
–	WH	NC

Shield on housing

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

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

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

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

Shield on housing

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

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



# Data

## M12 device connectors

### Litz wire colors

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

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

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

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

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

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

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

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

Assignment: 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	DB
3	YE	DG
4	BU	DA

# Power

## M12 device connector

### Pin assignments



Socket, 2+PE, S-coded



Pin, 2+PE, S-coded



Socket, 3+PE, S-coded



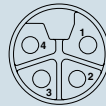
Pin, 3+PE, S-coded



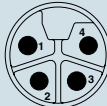
Socket, 4-pos., T-coded



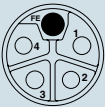
Pin, 4-pos., T-coded



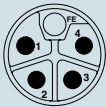
Socket, 4-pos., L-coded



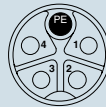
Pin, 4-pos., L-coded



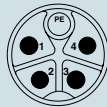
Socket, 4+FE, L-coded



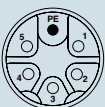
Pin, 4+FE, L-coded



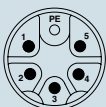
Socket, 4+PE, K-coded



Pin, 4+PE, K-coded



Socket, 5+PE, M-coded



Pin, 5+PE, M-coded

### Litz wire colors

Assignment: 2+PE, S-coded

Pin	Wire color
1	BK1
3	BK2
PE	GNYE

Assignment: 3+PE, S-coded

Pin	Wire color
1	BK1
2	BK2
3	BK3
PE	GNYE

Assignment: 5+PE, M-coded

Pin	Wire color
1	BK1
2	BK2
3	BK3
4	BK4
5	BK5
PE	GNYE

Assignment: 4-pos., T-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: 4 / 4+FE L-coded

Pin	Wire color
1	BN
2	WH
3	BU
4	BK
FE*	GY

\* Omitted for 4-pos.

# Professional service

In addition to a large number of new products, we also provide great flexibility in customer-specific adaptations. From color variations to printing and special packaging, we can provide you with almost anything – even brand new product developments.

## **Flexibility in different versions**

Whether you need individual colors, modern special printing, a specific number of contacts or complete cable assemblies, our Service Centers will be happy to support you in quickly meeting your needs.

## **Innovation expertise**

Benefit from our extensive development and manufacturing expertise for your individual solution – from the initial idea to series production.

## **Professional service and support**

During the design-in process, we offer advice and support from the initial inquiry to the finished product, wherever you are in the world.





Wide range of color versions



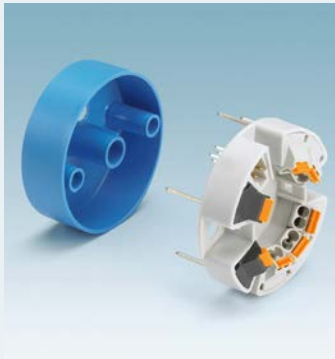
Customer-specific cable assemblies



Individual printing



Special punching, coding, and pin lengths



Connection block for temperature sensors



Hybrid connector for charging stations



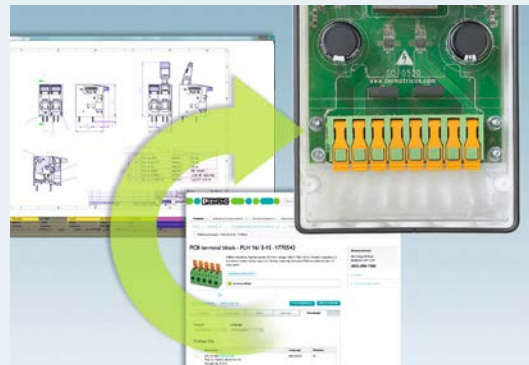
Connection system for LED street lighting



Controller housing with front connection technology



Fast product selection using web tools



Convenient 3D data download



International training on products and technologies

## In dialog with customers and partners worldwide

Phoenix Contact is a globally present, Germany-based market leader. Our group is synonym for future-oriented components, systems, and solutions in the fields of electrical engineering, electronics, and automation. A global network across more than 100 countries, and 14,500 employees ensure a close proximity to our customers, which we believe is particularly important.

The wide variety of our innovative products makes it easy for our customers to find future-oriented solutions for different applications and industries. We especially focus on the fields of energy, infrastructure, process and factory automation.



You will find our complete product range at:  
[phoenixcontact.com](http://phoenixcontact.com)

### USA:

PHOENIX CONTACT Inc.  
P.O. Box 4100  
Harrisburg  
PA 17111-0100  
Phone (717) 944-1300  
Fax (717) 944-1625  
[phoenixcontact.com](http://phoenixcontact.com)

### Canada:

PHOENIX CONTACT Ltd.  
8240 Parkhill Drive  
Milton, Ontario L9T 5V7  
Toll Free (800) 890-2820  
Phone (905) 864-8700  
Fax (905) 890-0180  
[phoenixcontact.ca](http://phoenixcontact.ca)