

2015/2016

Data connectors

Data connectors for copper and fiber-optic cabling

PLUSCON data is the connector range from Phoenix Contact for safe and reliable data transmission. Benefit from innovative connection technologies and an industrial design. The product range includes assembled cables, flush-type connectors, and connectors for field assembly as well as special, tool-free connector systems for copper and fiber-optic-based cabling.

Solutions for copper cabling

- Up to 10 Gbps
- Protection class IP20 to IP69K
- 4-pos. and 8-pos. versions
- Spring, pierce, and IDC displacement connection
- 360° shielding concept
- For all common networks and fieldbuses

Solutions for fiber-optic cabling

- Up to 40 Gbps
- Protection class IP20 to IP65/67
- For POF, PCF, and GOF
- For all common fiber-optic interfaces

Find out more with the web code

In this brochure, you will find our web codes: a number sign followed by a four-digit number combination.

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

This allows you to reach information on our website quickly.

It couldn't be simpler:

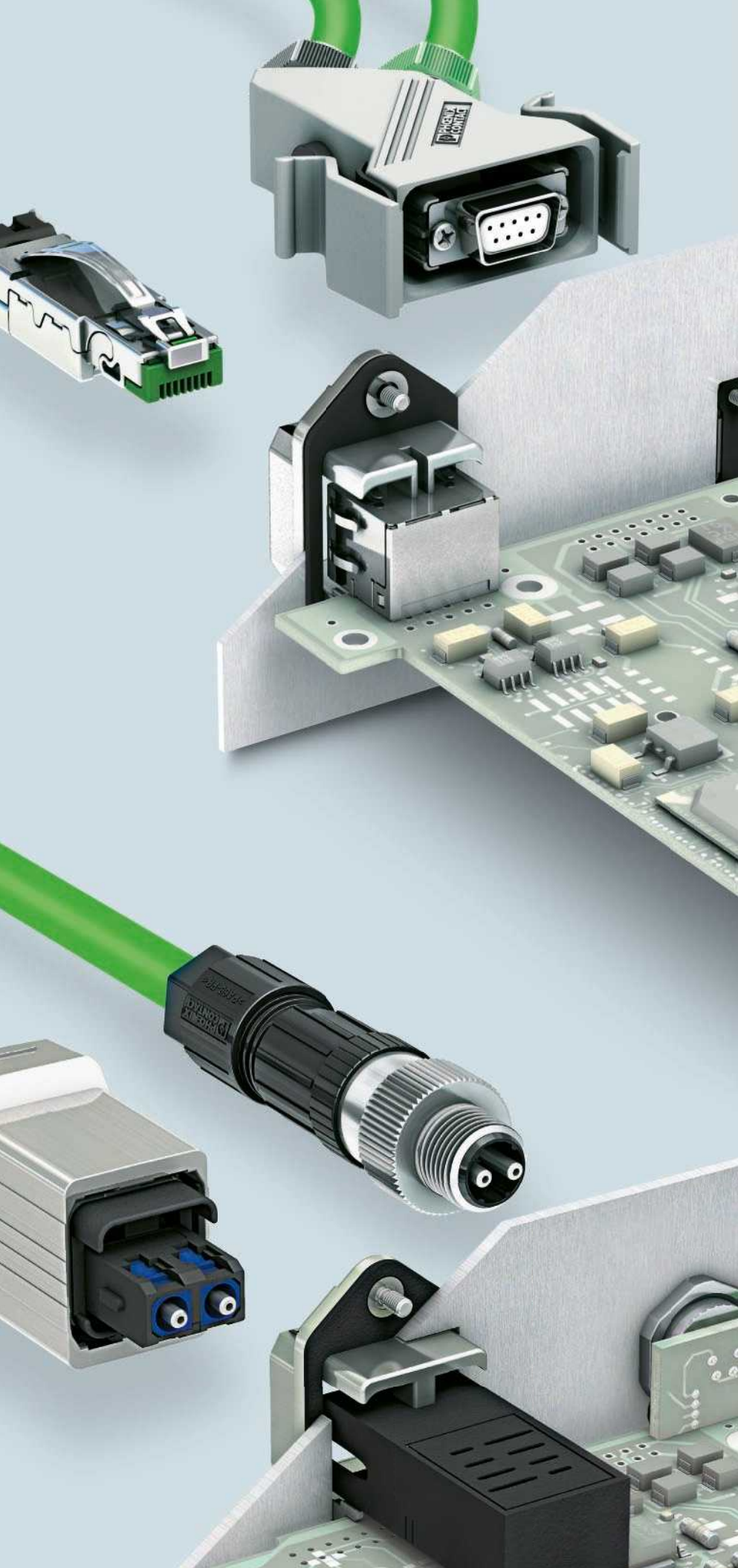
1. Go to the Phoenix Contact website
2. Enter # and the number combination in the search field
3. Receive more information and product versions

Or use the direct link:

phoenixcontact.net/webcode/#1234



 **Web code:** #0296



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Unique variety for copper and fiber-optic cabling

Create consistent solutions for safe data transmission up to 40 Gbps with our range of designs, coding, and pin assignments.

Always the right connection



For compact device connection





For flexible on-site connection



For easy cabling


ST 


FSMA 

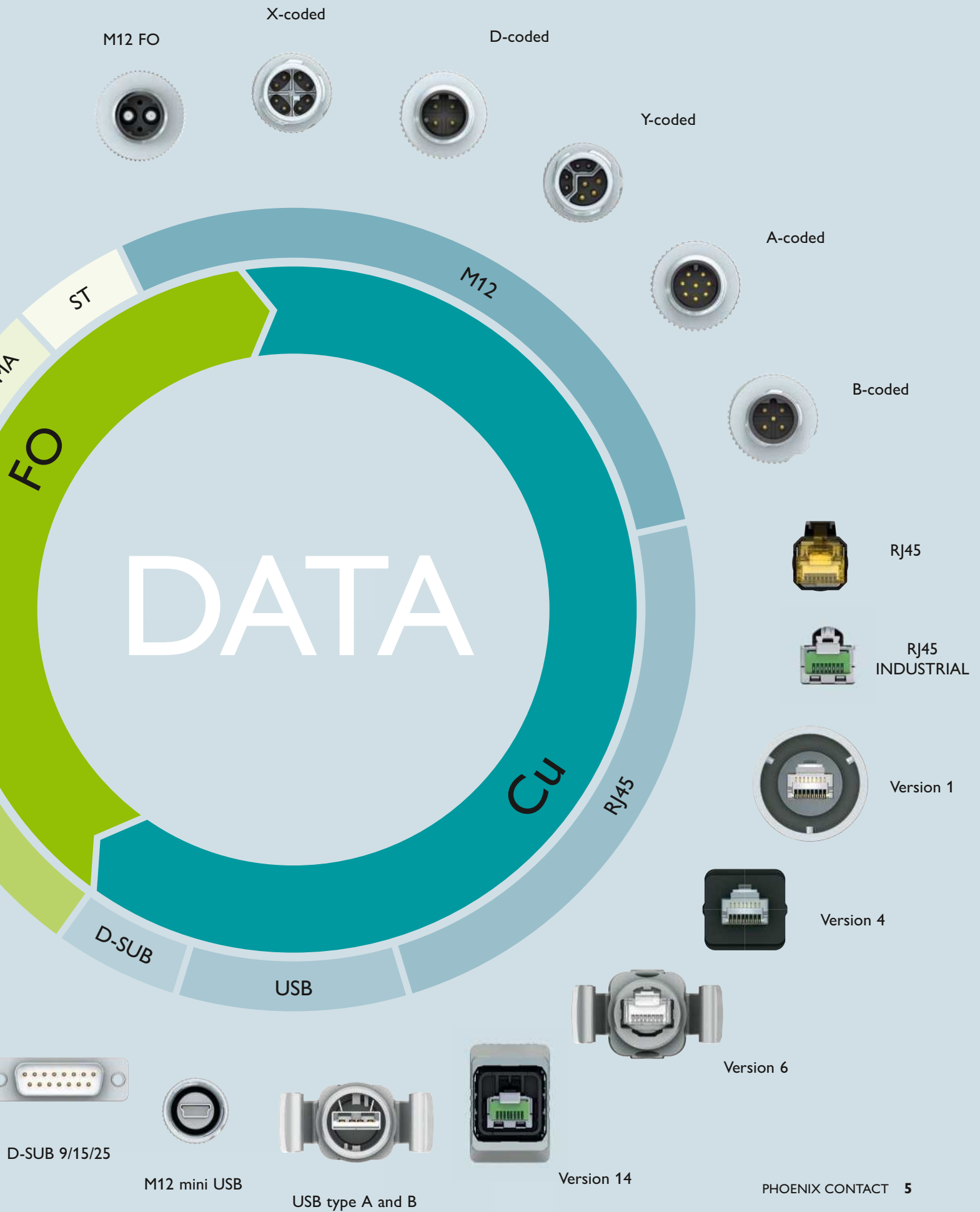
SC DUPLEX 

LC DUPLEX 

SC-RJ 

SC-RJ
version 6 

SC-RJ
version 14 



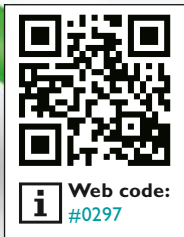
Copper-based data cabling for networks and fieldbuses

Complex automation processes call for high volumes of data at ever-increasing transmission speeds. Benefit now from high-performance connectors and cables for on-site assembly.

Whether it's future-proof high-speed cabling up to 10 Gbps or innovative hybrid cabling – we will find the perfect solution for your automation network.

Main features

- Up to 10 Gbps
- Solutions from IP20 to IP69K
- 4-pos. and 8-pos. versions
- Spring, pierce, and IDC connection
- 360° shielding concepts



EtherNet/IP™

Ethernet



EtherCAT®



SERCOS
the automation bus



CANopen®

DeviceNet™

CC-Link

Why 10 Gbps?

Transmission speeds and data volumes are constantly increasing. Data transmission speeds of up to 10 Gbps are being used in more and more applications. This can also be achieved in industrial environments using special CAT6A components. This means that you can now achieve fast and smooth data exchange throughout your entire company network.



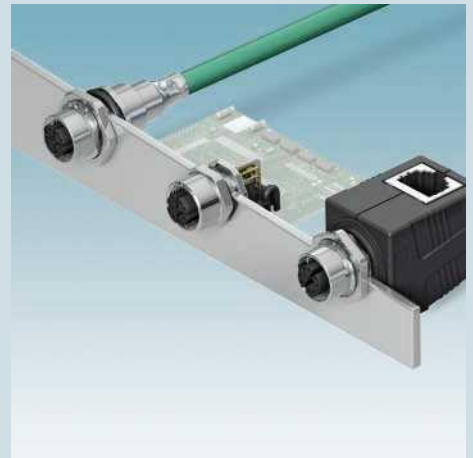
Advantages at a glance



Fast assembly without special tools – with IDC and pierce fast connection



Wide range of plugs from RJ45 to USB and D-SUB to M12



Flexible device connection thanks to versatile housing feed-throughs for devices and control cabinets



Reliable protection against extreme temperatures, liquids, vibrations, and UV light



Fast data transmission thanks to data rates up to 10 Gbps and components that meet the CAT6A standard



Special shielding concepts with 360° EMC shielding guarantee a high level of resistance to EMI and ESD

Fiber-optic-based data cabling for networks and fieldbuses

High transmission speed, low attenuation, resistance to electromagnetic interference: fiber-optic cables are among the modern transmission media for industrial systems and infrastructure applications. Whatever the fiber type or interface – you can choose the right connection technology from our extensive portfolio.



Main features

- Up to 40 Gbps
- Solutions from IP20 to IP65/67
- For all common fiber types
- Maximum protection against the effects of EMC and ESD

EtherNet/IP™

Ethernet

EtherCAT®

PROFINET®

SERCOS
the automation bus

INTERBUS

PROFIBUS®

CANopen®

DeviceNet™

Modbus

Choose the right fiber type for your application

- POF (polymer optical fiber) for short transmission paths up to 100 m and maximum data rates of up to 100 Mbps
- PCF (polymer-clad fiber) for medium-length transmission paths up to 500 m and maximum data rates of up to 1 Gbps
- GOF (glass optical fiber) multimode for long transmission paths up to 550 m at 10 Gbps
- GOF single mode for up to 50 km and data rates of up to 40 Gbps

Advantages at a glance



Wide choice of versions from SC-RJ, LC, SC, FSMA to ST, plus fiber types POF, PCF, GOF



Extensive range of cables for all applications, networks, and standard interfaces



Fast assembly in the field using professional tools



Reliable protection against extreme temperatures, liquids, and UV light



High data rates up to 40 Gbps



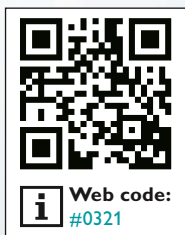
Integrated interlocking prevents accidental disconnection

Data connectors for outdoor applications

High requirements are placed on components used for outdoor data transmission, in fields such as telecommunications and renewable energies. Phoenix Contact offers special connectors for outdoor applications. These can withstand aggressive environmental conditions such as large differences in temperature, humidity, UV rays, and vibrations.

Main features

- Connectors for outdoor applications with IP65/67/69K protection
- Fiber-optic connectors with a robust design
- High-quality and UV-resistant connectors and cables
- Robust connectors made of stainless steel 1.4404
- Data rates up to 40 Gbps





Harsh environments and weather conditions are typical for wind turbine generators and photovoltaic systems. Reliability, a compact design, and robustness are important requirements here for professional data connectors.



Advantages at a glance

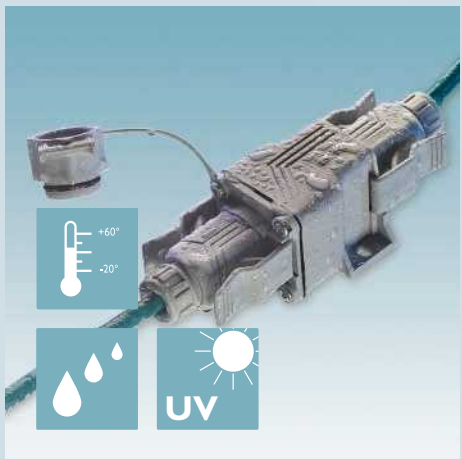


VA

Corrosion-resistant materials such as stainless steel 1.4404 guarantee reliable operation in extreme environmental conditions



High IP protection classes up to IP69K guarantee reliable protection against the effects of outdoor weather conditions



Guaranteed durability thanks to the use of high-quality materials and intensive testing processes

Data connectors for computer centers and building technology

Phoenix Contact offers an extensive and forward-looking product range for modern building cabling.

Our patch cables and patch fields allow you to install flexible and fail-safe cabling.

Main features

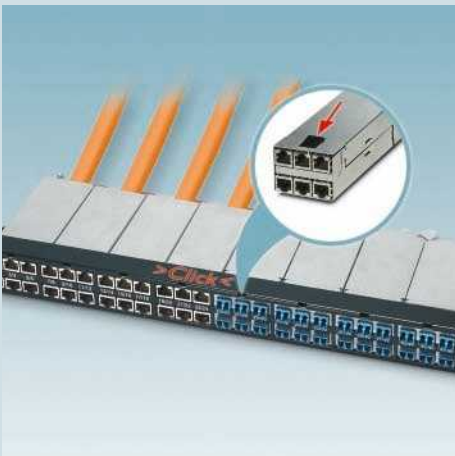
- Consistent cabling systems for 19" technology
- Connection technology for either copper or fiber-optic cabling
- Connection solutions for indoor and outdoor applications
- Consistent range of data connectors, right up to active components for building cabling
- GHMT-certified products





Comfort, flexibility, and versatility are the requirements for modern building cabling. The modular distribution field with 19" technology can be used individually and in a way that saves space thanks to its high packing density.

Advantages at a glance



Fast installation of 19" components thanks to the plug and play principle and pre-assembled modules



Individual cabling solutions for any area of application



Shielded cable connectors for structured building cabling

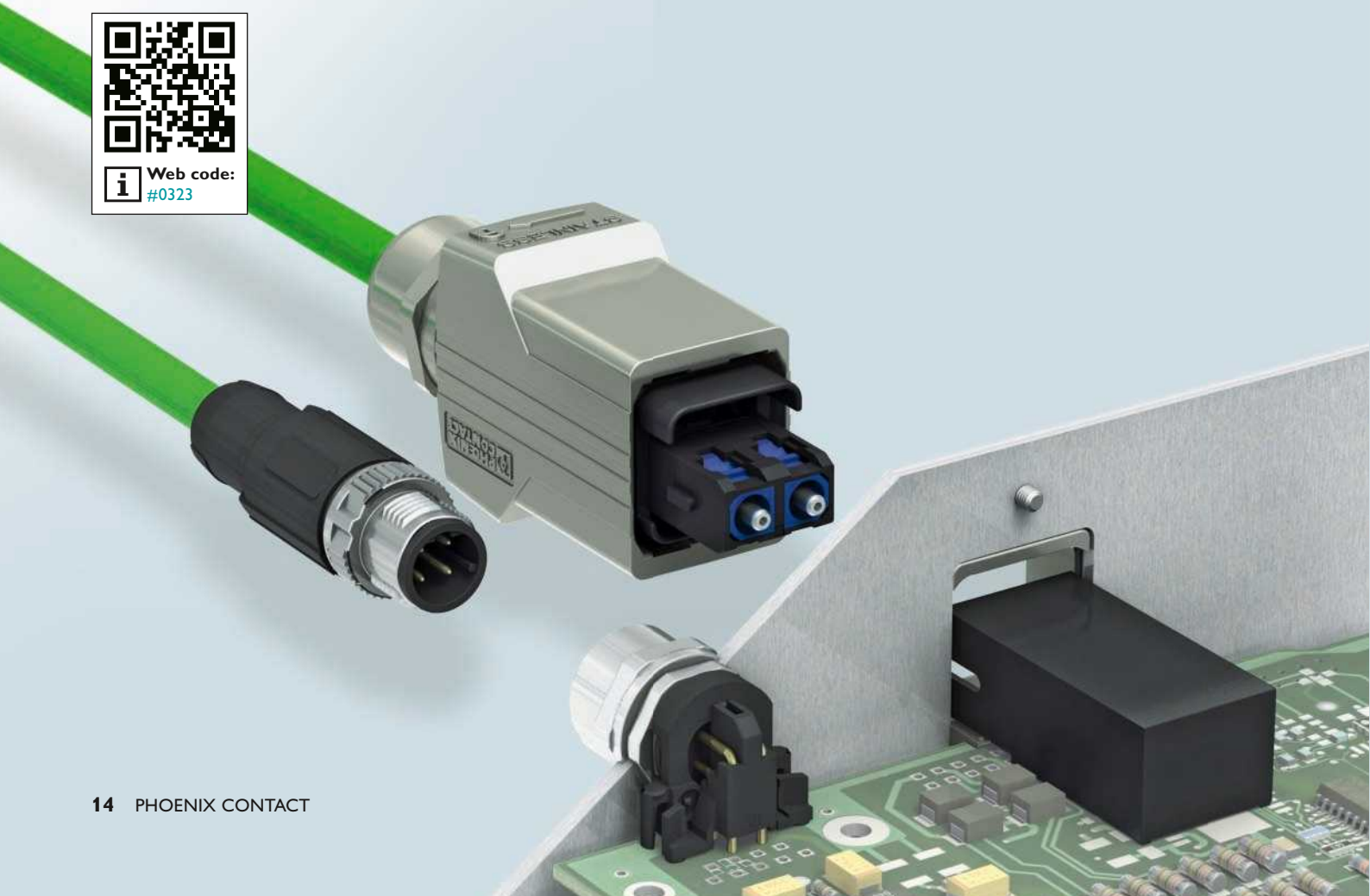
Data connectors for industry automation

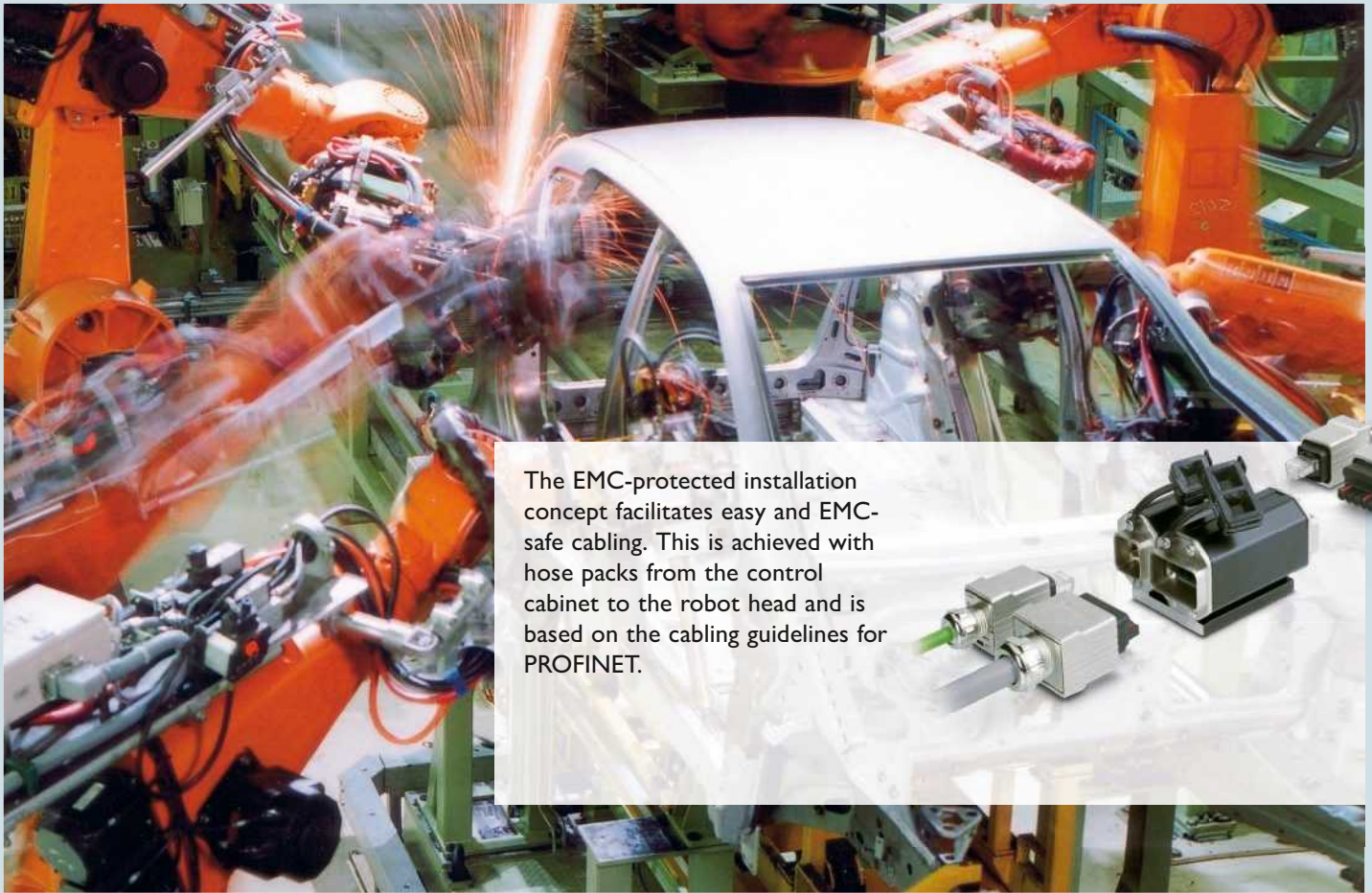
Special shielding concepts and torsion-resistant components are essential for the reliable operation of robots and conveying systems.

Put your trust in the reliable and consistent product range from Phoenix Contact for error-free data transmission.

Main features

- Tested connection technology according to the PROFINET standard
- Maximum immunity to EMC and ESD thanks to consistent shielding
- Convenient push-pull connection system for data and power up to 400 volts
- Individual solutions for copper and fiber-optic cabling
- Connectors for assembly and pre-assembled cables available





The EMC-protected installation concept facilitates easy and EMC-safe cabling. This is achieved with hose packs from the control cabinet to the robot head and is based on the cabling guidelines for PROFINET.



Advantages at a glance



Components that are resistant to welding beads for use with robots



Consistent shielding concept for protection against EMC and ESD interference



Guaranteed torsion resistance thanks to the special cable design

Data connectors for the railway industry

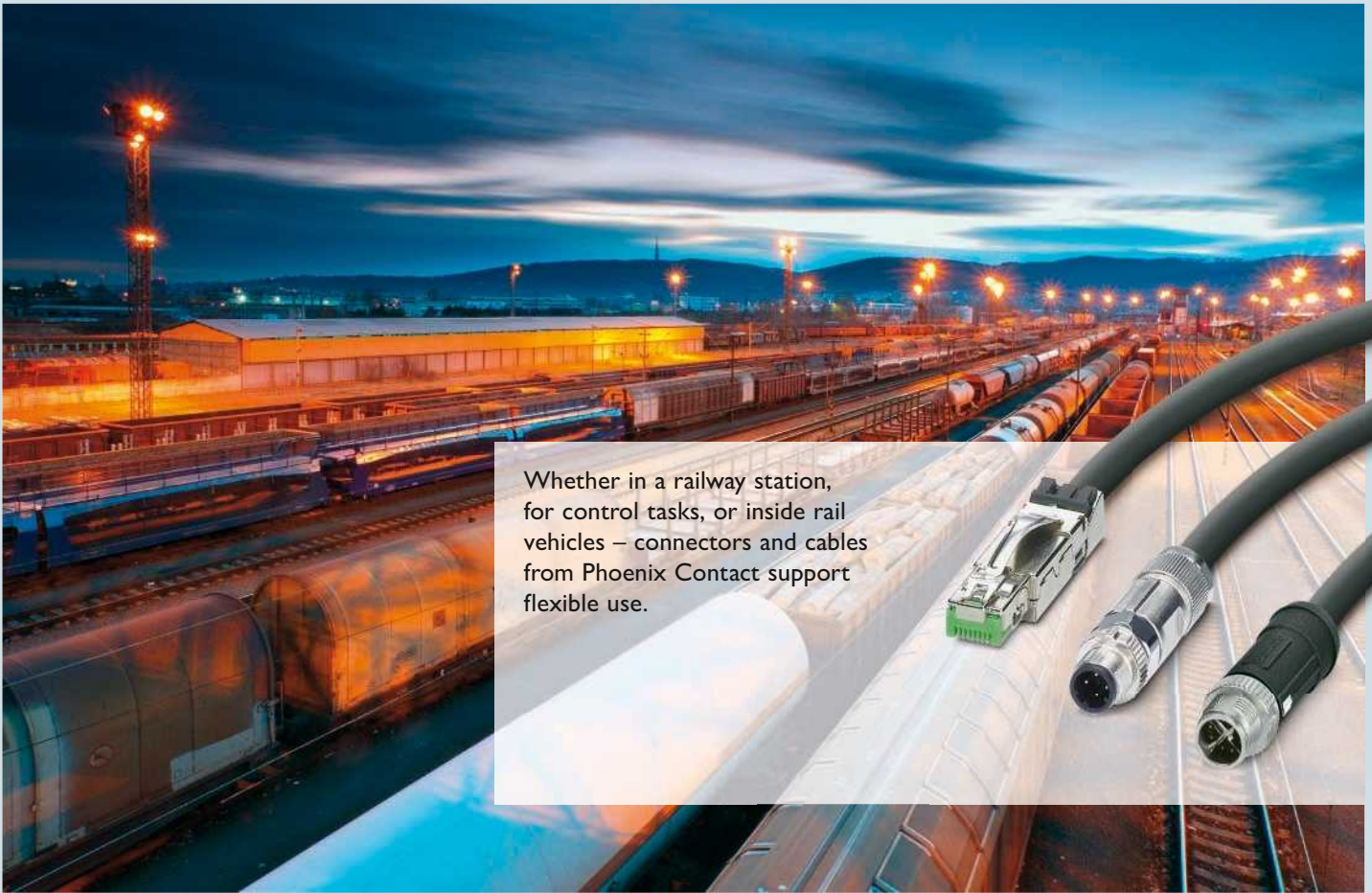
Phoenix Contact offers reliable connection solutions for the special requirements of the railway industry.

Choose the right M12 or RJ45 components and cabling solution for your Ethernet applications.

Main features

- Consistent product range for data transmission up to 10 Gbps (CAT6A)
- Connectors for assembly without special tools
- Individual solutions for copper-based data cabling can be implemented
- SPEEDCON and push-pull quick-locking technology for easy insertion and removal in the field
- Phoenix Contact is IRIS certified (as of 2015)
- Secure locking thanks to special vibration brake tested in accordance with EN 50155





Whether in a railway station, for control tasks, or inside rail vehicles – connectors and cables from Phoenix Contact support flexible use.

Advantages at a glance



Fast assembly without additional tools thanks to QUICKON IDC fast connection



Special material selection for maximum requirements for behavior in fire



Shock-proof and vibration-proof connectors allow for permanently secure connections

RJ45 connectors

i Web code: #0325

IP20 connectors





		RJ45 Crimp		RJ45 QUICKON	RJ45 INDUSTRIAL		
							
RJ45 contact insert, crimp connection		Crimp connection		IDC fast connection	IDC fast connection, straight	IDC fast connection, angled, TOP	IDC fast connection, angled, BOTTOM
Ethernet		Plastic, gray	Plastic, green	Plastic, black	Metal	Metal	Metal
8-pos., CAT5 IDC				1402420 / 1656725			
8-pos., CAT5 IDC	1652716	1654743	1654756				
8-pos., CAT6 IDC	1652729						
8-pos., CAT6 pierce	1404388						
8-pos., CAT6 _A IDC				1419001	1406333	1406339	1406336
8-pos., CAT6 _A crimp	1418853	1654743	1654756				
PROFI[®] NET							
4-pos., CAT5				1658435			
8-pos., CAT5e					1406334	1406340	1406337
VARAN							
6-pos.					1406335	1406341	1406338

IP65/67 connectors

Version 1	Version 4	Version 6		Version 14	Version 14 push-pull ADVANCE		
	 Push-pull interlocking			 IDC fast connection, push-pull interlocking			
Metal	Plastic, black	Bend protection sleeve	Pin insert	Plastic	Zinc die-cast, straight outlet	Zinc die-cast, angled outlet	Zinc die-cast, cable outlet on top
1419182		1656990	1658493	1657834			
		1652732	1658671				
		1652732	1658671				
		1652732	1658671				
	1407413			1422205	1407890	1408011	1468007
		1652732	1658671				
				1608126			
					1407889	1407895	1408027

Assembled cables for PROFINET, 4-pos., shielded

i Web code: #0326











		IP20 cables		
				
		RJ45 connector, IP20, straight	RJ45 connector, IP20, angled	RJ45 connector, version 14, metal
	1 m			
	2 m			
	5 m			
	10 m			
	Variable	1411857	1411858	1411859
RJ45 connector, IP20, straight	1 m	1408968	1408971	
	2 m	1408969	1418277	
	5 m	1408970		1416138
	10 m	1408971		
	Variable	1411861	1411862	1411863
RJ45 connector, IP20, angled	1 m		1409002	
	2 m		1409003	
	5 m		1409004	
	10 m		1409005	
	Variable		1411865	
RJ45 connector, version 14, metal	1 m			1408974
	2 m			1408975
	5 m			1408972
	10 m			1408976
	Variable			1411866
RJ45 connector, version 14, plastic	1 m			
	2 m			
	5 m			
	10 m			
	Variable			
M12 connector, SPEEDCON, straight	1 m			
	2 m			
	5 m			
	10 m			
	Variable			
M12 connector, SPEEDCON, angled	1 m			
	2 m			
	5 m			
	10 m			
	Variable			

IP65/67 cables

 RJ45 connector, version 14, plastic	 M12 connector, SPEEDCON, straight	 M12 connector, SPEEDCON, angled	 M12 socket, SPEEDCON, straight	 M12 socket, SPEEDCON, angled	 M12 flush-type socket, rear mounting
	1407495		1407528		1437779
	1407496		1407529		1437782
1416168	1407497		1407530		1437795
	1407498		1407531		
1411860	1408640	1408633	1408623	1408615	
	1407499		1407532		
	1407500		1407533		
1416141	1407501		1407534		
	1407502		1407535		
1411864	1408639	1408632	1408622	1408613	
	1407508		1407536		
	1407509		1407537		
	1407510		1407538		
	1407511		1407539		
	1408638	1408631	1408621	1408612	
	1407516		1407544		
	1407517		1407545		
	1407518		1407546		
	1407519		1407547		
	1408636	1408628	1408619	1408610	
1408978	1407520		1407548		
1408979	1407521		1407549		
1408977	1407522		1407551		
1408980	1407523		1407552		
1411867	1408635	1408626	1408618	1408609	
	1407524		1407553		
	1407525		1407554		
	1407526		1407555		
	1407527		1407556		
	1408634	1408625	1408617	1408608	
		1408624	1408616	1408607	









Assembled cables for Ethernet, 8-pos., shielded, up to 1 Gbps

i Web code: #0327




		IP20 cables		
				
		RJ45 connector, IP20	RJ45 connector, version 6	RJ45 connector, version 14, metal
 Open cable end	1 m			
	2 m			
	5 m	1407699		
	10 m			
	Variable	1411838	1411839	1411840
 RJ45 connector, IP20	1 m			
	2 m			
	5 m			1407990
	10 m			
	Variable	1411842	1411843	1411844
 RJ45 connector, version 6	1 m			
	2 m			
	5 m			
	10 m			
	Variable		1411846	
 RJ45 connector, version 14, metal	1 m			
	2 m			
	5 m			
	10 m			
	Variable			1411847
 RJ45 connector, version 14, plastic	1 m			
	2 m			
	5 m			
	10 m			
	Variable			
 M12 connector, SPEEDCON, straight	1 m			
	2 m			
	5 m			
	10 m			
	Variable			
 M12 connector, SPEEDCON, angled	1 m			
	2 m			
	5 m			
	10 m			
	Variable			

Assembled cables for Ethernet, 8-pos., shielded, up to 10 Gbps

i Web code: #0328

		IP20 cables	
		RJ45 connector, IP20	RJ45 connector, version 6
Open cable end			
	1 m		
	2 m		
	5 m		
	10 m		
	Variable	1411853	1415639
RJ45 connector, IP20			
	1 m	1418866	
	2 m	1408360	
	5 m	1418879	
	10 m	1408367	
	Variable	1411854	1414321
RJ45 connector, version 6			
	1 m		
	2 m		
	5 m		
	10 m		
	Variable		1414322
RJ45 connector, version 14, metal			
	1 m		
	2 m		
	5 m		
	10 m		
	Variable		
RJ45 connector, version 14, plastic			
	1 m		
	2 m		
	5 m		
	10 m		
	Variable		
M12 connector, SPEEDCON			
	1 m		
	2 m		
	5 m		
	10 m		
	Variable		

IP65/67 cables






RJ45 connector, version 14, metal	RJ45 connector, version 14, plastic	M12 connector, SPEEDCON
		
		1407467
		1407468
		1407469
		1407470
1415637	1415638	1408648
		1407471
		1407472
		1407473
1411855	1411856	1407474
		1408647
		1407475
		1407476
		1407477
		1407478
1414323		1408646
		1407479
		1407480
		1407481
		1407482
	1414324	1408645
		1407483
		1407484
		1407485
		1407486
		1408644

RJ45 panel mounting frames and socket inserts

i Web code: #0329

		IP20 panel mounting frames					
		Version 1	Version 4				
							
		1-way, for modular socket inserts	Bayonet interlocking	Push-pull interlocking	For a round m Push-pull interlocking		
Socket inserts		Cable connection	Order No.	Plastic, gray	Metal	Plastic, black	Plastic, gray
	Keystone, CAT6 _A	1653168	1689433				1689844
	Freenet, CAT5	1652936					1653744
	Freenet, CAT6 _A	1424009					1653744
	Contact insert for bayonet interlocking			1419185			
PCB solder connection							
	Straight, CAT6	1653090					
	Angled, CAT5	1688586					
	Angled, CAT6	1653087					
	Angled, CAT6 _A	1420401					
	Straight, CAT5	1407409				1407411	
	Angled, CAT5	1407408				1407410	
Socket to socket							
	Keystone, CAT5	1689064	1689433				1689844
	Keystone, CAT6	1653155	1689433				1689844
	Freenet, CAT5	1405617					1653744
	Version 1 panel mounting frame set				1419184		
	Version 4 panel mounting frame set					1407412	

IP65/67 panel mounting frames

Version 6			Version 14		
					
Mounting cutout interlocking	For a square mounting cutout Push-pull interlocking			Push-pull interlocking	
Plastic, black	Plastic, gray	Plastic, black	Metal, round	Metal, square	Plastic, square
1658053	1689080	1658642			
1658668			1405222	1405358	1608197
1658668			1405222	1405358	1608197
	1689446	1658655			
	1689446	1658655			
	1689446	1658655			
				1608029	1657847
1658053	1689080	1658642			
1658053	1689080	1658642			
1658668			1405222	1405358	1608197

RJ45 patch panels and terminal outlets

i Web code: #0330

IP20 RJ45 patch panels





Components for 19" technology	19" frame, empty, for 8 modules	Patch panel, 19" mounting, with 16 slots	RJ45 patch panel, IDC connection
19" frame, empty (gray, black)	1407986/1409140		
Jumpering panel, 19"	1407994/1409283/1409284		
Dummy frame, size of one module, for use in the frame	1407988		
RJ45 module, 6 x RJ45 to 6 x RJ45, 10 Gbps, can be unlocked from the front, variable length	1407995		
19" frame, for 16 Freenet modules		1652994	
Patch fields			
CAT6 _A patch panel			1658118
CAT5 patch panel			1403154
Distributor boxes			
Surface-mounted without modules			
Flush-mounted without modules			
Module inserts			
Socket to cable, CAT.6 _A			
Socket to cable, CAT5			
Socket to socket, CAT5			

i Web code: #0331

Version 6



Connections	RJ45 coupling, gray	RJ45 coupling, black
1 x RJ45, cable diameter 5 mm ... 8 mm		
1 x RJ45, cable diameter 7 mm ... 10.5 mm		
1 x RJ45/1 x power, cable diameter 5 mm ... 8 mm		
1 x RJ45/1 x power, cable diameter 7 mm ... 10.5 mm		
1 x RJ45/RJ45	1689268	1658684
1 x power/power		
2 x RJ45		
1 x RJ45/1 x power		

Surface-mounted/flush-type socket, for RJ45 inserts	Module inserts for distributor boxes/patch fields
	
1653003	
1653016	
	1424009
	1652936
	1405617

	M12 to RJ45 bulkheads with UL approval	
Networks	Straight	Angled
Ethernet CAT5 patch panel, 4-pos.	1414397	1414398
Ethernet 8-pos.	1414396	1414393
Ethernet CAT6 _A patch panel, 8-pos.	1404548	1404549

IP65/67 RJ45 terminal outlets			
Version 14			
			
Terminal outlet	Terminal outlet	RJ45 and power robot interface	RJ45 robot interface
			1403678
			1403686
		1403682	
		1403688	
			1403685
			1403684
1404278	1404281		
	1404333		

Fiber-optic connectors for assembly

i Web code: #0332

Fiber-optic connectors for assembly for cleave technology

Tool sets		GOF	PCF
	Complete with cleave tools, for field assembly of multimode und single mode connectors	1411049	
	Complete with cleave tools, for field assembly of PCF(HCS) connectors		1411051
Ferrule cleaner, approx. 500 cleaning cycles			
	1.25 mm, for LC		1411300
	2.5 mm, for ST, SC, FC		1411301
LC duplex, for field assembly, reusable			
	Multimode (50/125 μm)	1411052	
	Single mode PC (9/125 μm)	1411053	
	Single mode APC (9/125 μm)	1412472	
LC duplex, advantage pack (10 pc.), for field assembly, reusable			
	Multimode (50/125 μm)	1411298	
	Single mode PC (9/125 μm)	1411299	
	Single mode APC (9/125 μm)	1412479	
LC pigtail, for field assembly, reusable			
	Multimode (50/125 μm)	1411294	
	Single mode PC (9/125 μm)	1411295	
	Single mode APC (9/125 μm)	1412476	
SC duplex, for field assembly, reusable			
	Multimode (50/125 μm)	1411292	
	Single mode PC (9/125 μm)	1411293	
	Single mode APC (9/125 μm)	1412474	
	PCF (200/230 μm)		1411305
SC duplex, advantage pack (10 pc.), for field assembly, reusable			
	Multimode (50/125 μm)	1411302	
	Single mode PC (9/125 μm)	1411303	
	Single mode APC (9/125 μm)	1412481	
SC pigtail, for field assembly, reusable			
	Multimode (50/125 μm)	1411296	
	Single mode PC (9/125 μm)	1411297	
	Single mode APC (9/125 μm)	1412478	
SC-RJ, for field assembly, reusable			
	Multimode (50/125 μm)	1411290	
	Single mode PC (9/125 μm)	1411291	
	Single mode APC (9/125 μm)	1412473	
	PCF (200/230 μm)		1411304
SC-RJ, advantage pack (10 pc.), for field assembly, reusable			
	Single mode PC (50/125 μm)	1411301	
	Single mode APC (9/125 μm)	1412480	
	Multimode (50/125 μm)	1411300	

Zipcord glass fiber cables for assembly





i Web code: #0333









Zipcord glass fiber cables for assembly, IP20

		Open end	SC-RJ connector	SC duplex connector	B-FOC(ST) connector	LC duplex connector
						
Open end		OM2/OM3 / OM4	OM2/OM3 / OM4	OM2/OM3 / OM4	OM2/OM3 / OM4	OM2/OM3 / OM4
	Variable	1411561 / 1411563 / 1411564				
SC-RJ connector, IP20						
	1 m		1409813 / 1409814 / 1409815	1409810 / 1409811 / 1409812	1409822 / 1409823 / -	1409793 / 1409796 / 1409797
	2 m		1400697 / 1400699 / 1400700	1400690 / 1400691 / 1400695	1400706 / 1400711 / -	1400682 / 1400683 / 1400684
	Variable		1405703 / 1405704 / 1405705	1405700 / 1405701 / 1405702	1405710 / 1405711 / -	1405694 / 1405695 / 1405696
SC duplex connector, IP20						
	1 m			1409798 / 1409799 / 1409801	1409819 / 1409821 / -	
	2 m			1400685 / 1400688 / 1400689	1400703 / 1400705 / -	
	Variable			1405697 / 1405698 / 1405699	1405708 / 1405709 / -	
B-FOC(ST) connector, IP20						
	1 m				1409824 / - / -	
	2 m				1404768 / - / -	
	Variable				1405712 / - / -	
LC duplex connector, IP20						
	1 m			1409790 / 1409791 / 1409792	1409816 / 1409818 / -	1409787 / 1409788 / 1409789
	2 m			1400639 / 1400673 / 1400681	1400701 / 1400702 / -	1400604 / 1400621 / 1400622
	Variable			1405691 / 1405692 / 1405693	1405706 / 1405707 / -	1405688 / 1405689 / 1405690

Fiber-optic connectors, panel mounting frames, and socket inserts

i Web code: #0334




Description	Socket insert				
	Freenet system	IP20	M12 OPTIC	Version 1	Version 6
					
	SC-RJ to SC-RJ	SC-RJ, fast connection technology	M12, adhesive connection technology	SC-RJ, adhesive connection technology	SC-RJ, fast connection technology
Polymer fiber 980/1000 μm (POF)				Metal	
SC-RJ		1654879		1419189	1657009
Freenet system, SC-RJ to SC-RJ	1652978				
M12 to M12, pre-assembled cable, 1/2/5 m			1408871/ 1408870/1416680		
M12 to SC-RJ, pre-assembled cable, 1/2/5 m			1408865/ 1408864/1416648		
For use in the AVAGO transceiver (type: AFBR5978Z)					
SC-RJ to SC-RJ					
Polymer-clad fiber 200/230 μm (PCF)					
SC-RJ					
SC-RJ single-wire diameter 2.9 mm		1654866			
SC-RJ single-wire diameter 2.2 mm		1404087			1657012
F-SMA set, 4 connectors, single-wire diameter 2.9 mm		2799487			
B-FOC(ST) set, 4 connectors, single-wire diameter 2.9 mm		2708481			
Freenet system, SC-RJ to SC-RJ	1652978				
M12 to M12, pre-assembled cable, 1/2/5 m			1408873/ 1408872/1416693		
M12 to SC-RJ, pre-assembled cable, 1/2/5 m			1408867/ 1408866/1416651		
For use in the AVAGO transceiver (type: AFBR5978Z)					
SC-RJ to SC-RJ					
Glass optical fiber: MM 50/125 μm, SM 9/125 μm (GOF)					
SC-RJ, multimode		1657070		1419187	1657083
SC-RJ, single mode				1419188	
SC duplex, multimode		1658529			
LC duplex, multimode				1419190	
LC duplex, single mode				1419191	
Freenet system, SC-RJ to SC-RJ	1652978				
M12 to M12, pre-assembled cable, 1/2/5 m			1408875/ 1408874/1416703		
M12 to LC duplex, pre-assembled cable, 1/2/5 m			1408869/ 148868/1416664		
For use in the AVAGO transceiver (type: AFBR5978Z)					
SC-RJ to SC-RJ multimode					
SC-RJ to SC-RJ single mode					
Multimode LC duplex/LC duplex					
Single-mode LC duplex/LC duplex					

Connector				Panel mounting frame			
IP65/67				IP65/67			
Version 14				Version 1	Version 6	Version 14	
							
SC-RJ, fast connection technology	SC-RJ push-pull, straight cable outlet	SC-RJ push-pull, cable outlet at the top	SC-RJ push-pull, cable outlet at the bottom	SC-RJ, bayonet interlocking	For a round mounting cutout	Push-pull interlocking	Push-pull interlocking
Plastic	Metal	Metal	Metal		Plastic, gray/black	Metal, round cutout	Metal/plastic, square cutout
1657850	1407896	1408028	1407902		1653744/1658668	1405235	1405374/1608210
					1658545		1608061/1657889
				1420197			
	1407897	1408029	1407904				
1608045/1657863							
					1653744/1658668	1405235	1405374/1608210
					1658545		1608061/1657889
				1420197			
	1407898	1408030	1407905				
					1653744/1658668		
					1658545		
				1420197			
				1420207			
				1420210			
				1420223			

Fiber-optic terminal outlets, splice boxes, and couplings



i Web code: #0335

IP20 patch panels and couplings

Patch panel		Order No.
	SC-RJ, 1 slot, DIN rail mounting	1658121
	SC-RJ, 16 slots, 19" mounting, for Freenet contact inserts	1652994
Outlet box		Order No.
	Surface-mounted socket, 2 slots	1653003
	Surface-mounted socket, 6 slots	1653029
	Flush-type socket, 2 slots	1653016
Couplings		Order No.
	2 x F-SMA/F-SMA	2799416
	2 x B-FOC(ST®)/B-FOC(ST®)	2799429
	1 x SC-RJ/SC-RJ (duplex)	1652978
	1 x LC duplex/LC duplex (multimode)	2700312
	1 x LC duplex/LC duplex (single mode)	2700313
	1 x SC duplex/SC duplex	2901788

i Web code: #0336

IP20 splice boxes

Splice boxes		Order No.
	6x LC duplex, DIN rail mounting, robust metal housing	1411901
	6x SC duplex, DIN rail mounting, robust metal housing	1411902
	12 x ST, DIN rail mounting, robust metal housing	1411903
Accessories for splice boxes		Order No.
	Cable gland	1411125
	Nut	1411207

i Web code: #0337

IP65/67 terminal outlets and couplings

Couplings		Order No.
	1 x M12 OPTIC coupling	1416677
	1 x SC-RJ/SC-RJ version 6	1410050
	1 x SC-RJ/SC-RJ version 14	1405206
Terminal outlets		Order No.
	2 x SC-RJ version 14	1404320
	2 x SC-RJ version 6	1404317
	1 x SC-RJ/1 x power	1404346
Robot interfaces		Order No.
	1 x SC-RJ, cable diameter 5 mm ... 8 mm	1404319
	1 x SC-RJ, cable diameter 7 mm ... 10.5 mm	1404324
	1 x SC-RJ/1 x power, cable diameter 5 mm ... 8 mm	1404321
	1 x SC-RJ/1 x power, cable diameter 7 mm ... 10.5 mm	1404325
M12 transceiver for POF		Order No.
	Transceiver with 650 nm	1416716
	Transceiver with 1300 nm	1416729

M12 connectors and flush-type connectors for assembly

i Web code: #0338

IP65/67 M12 connectors



IDC connection








Spring connection



Piercecon connection



Screw connection






Networks		Straight	Angled	Straight	Angled	Straight	Angled	Straight	Angled
Ethernet CAT5, 4-pos.	Pin	1411066	1553624					1521261	
	Socket	1411069	1553637						
Ethernet 8-pos.	Pin	1543236	1553653						
	Socket	1553640	1553666						
Ethernet CAT6 _A , 8-pos.	Pin	1411043				1417430	1417443		
	Socket	1414586							
	Pin	1411068	1554539					1521261	
	Socket	1411071	1554542						
	Pin	1429130	1429156						
	Socket	1429143	1429169						
Fieldbuses									
	Pin			1432800	1432813			1507764	
	Socket			1432826	1432839			1507777	
	Pin	1413931		1432842	1432855			1507764	
	Socket	1413932		1432868	1432871			1507777	
DeviceNet	Pin			1432761	1432774			1508352	
	Socket			1432787	1432790			1508365	
	Pin			1559767					
	Socket			1559770					

IP65/67 M12 device connector



Solder connection

Cable connection

Networks		Cable length	Pin	Socket	Pin	Socket	
Ethernet	CAT5, 4-pos., solder connection		1456514	1456527			
	CAT5, 4-pos., cable type 93E	2 m				1405866	
	CAT5, 8-pos., solder connection		1456530	1456543			
	CAT5, 8-pos., solder connection, THR		1557578	1557549			
	CAT5, 8-pos., cable type 94B	5 m				1407877	
	CAT5, 8-pos., cable type 94C	2 m				1412820	
	CAT6A, 8-pos., solder connection			1424177			
	CAT6 _A , 8-pos., cable type 94F	0.5 m					1424135
		1 m					1424148
		2 m					1424151
		5 m					1424164
	CAT5, 8-pos., hybrid, solder connection			1407503			
	CAT5, 8-pos., hybrid, cable type 94H	0.5 m					1407504
		1 m					1407505
		2 m					1407506
		5 m					1407507
	4-pos., solder connection		1456556	1456569			
	4-pos., solder connection, THR		1552175	1542648			
	4-pos., cable type 93B	0.5 m				1427805	1437766
		1 m				1437818	1437779
		2 m				1437821	1437782
		5 m				1437834	1437795
	4-pos., cable type 93C	2 m				1416209	
4-pos., cable type 93R	3 m				1416263		
	Solder connection		1457979	1457966			
	Cable type 93K	0.5 m				1410158	1419154
		1 m				1419159	1419155
		2 m				1419160	1419156
		5 m				1419161	1419157
	Solder connection		1456556	1456569			
	Cable type 93K	0.5 m				1419138	1419134
		1 m				1419139	1419135
		2 m				1419140	1419136
		5 m				1419141	1419137
Fieldbuses							
			1456475	1456488	1534342	1534384	
			1456572	1456585	1534504	1534546	
CANopen / EtherNet/IP			1456491	1456501	1534423	1534465	
CC-Link			1457856	1457869			
FOUNDATION Fieldbus, yellow			1457872	1457885			

USB and D-SUB connectors and cables

i Web code: #0340

IP65/67 panel mounting frames

Contact inserts				Version 6	M12 USB panel-mount connector
Type of connection	Order No.			For a round mounting cutout	M12 fastening thread, wave solder contacts, integrated shield contact
	Panel mounting frame with USB socket A/socket B	1411904			
	Panel mounting frame with USB socket B/socket A	1411905			
	Socket type A to flat-ribbon cable terminal strip, Freetec system	1653854	1653744		
	Socket type B to flat-ribbon cable terminal strip, Freetec system	1653867	1653744		
	M12 with mini USB B				1440711

i Web code: #0340

Type A assembled USB cables

		IP20	IP67
		 	 
	Length	Order No.	Order No.
 Open end	1 m	1655771	1655742
	2 m	1655784	1655755
	5 m	1655797	1655768
 USB plug type B, IP20	1 m	1654853	
	2 m	1653935	1653896
	5 m	1653948	1653906
 USB plug type B, IP67	2 m	1653919	1653870
	5 m	1653922	1653883
 M12 mini USB, SPEEDCON	1 m	1420168	
	2 m	1420171	
	4 m	1420184	

Panel mounting frames/sleeve housings, shell size 1 ... 3



Contact inserts

Type of connection	Number of positions	Order No. Pin	Order No. Socket	Straight cable outlet	Angled cable outlet	Panel mounting frames	Sleeve housings
 Screw connection	9	1688379	1688395			1688366	1688353
	15	1688078	1688094			1688036	1688052
	25	1689789	1689776			1689750	1689792
 Solder cup connection, straight	9	1688793	1688803	1655658	1655661	1688366	1688353
	15	1688874	1688887	1655674	1655687	1688036	1688052
	25	1689899	1689909	1655690	1655700	1689750	1689792
 Solder pin connection, angled	9	1688382	1688405			1688366	
	15	1688081	1688120			1688036	
	25	1689873	1689886			1689750	
 Contact carriers for crimp contacts	9	1688858	1688861	1655658	1655661	1688366	1688353
	15	1688939	1688942	1655674	1655687	1688036	1688052
	25	1689954	1689967	1655690	1655700	1689750	1689792
 Ribbon cable connection	9	1688816	1688829			1688366	
	15	1688890	1688900			1688036	
	25	1689912	1689925			1689750	
 Gender changer	9	1652651	1688722			1688366	
	15	1652677	1652664			1688036	
	25	1652693	1652680			1689750	
 Angled solder pins, mixed number of positions	1PK-4S	1689006	1689019			1688366	1688353
	2PK-5S	1688227	1688230			1688036	1688052
	3PK-10S	1689996	1690008			1689750	1689792
	4PK-5S	1655386	1655373			1689750	1689792
 Power transmission, 8 A	3	1689310	1841909	1655658	1655661	1688366	1688353
	5	1688825	1841912	1655674	1655687	1688036	1688052

Push-pull power connectors, panel mounting frames, and distributors

i Web code: #0341

Panel mounting frames



Connection technology	Voltage	Contact insert	Metal	Plastic	Metal, round cutout
Solder connection, angled	24 V	1657915	1608087	1608281	
Solder connection, straight	24 V	1609565	1608087	1608281	
Solder connection, angled	400 V	1609549	1608087	1608281	
Solder connection, straight	400 V	1609581	1608087	1608281	
Spring connection, fixed coding	24 V				1405248
Spring connection, fixed coding	400 V				1405167
Spring connection, variable coding	24 V				1409036
2 x MSTB to 1 x MSTB connector	24 V				
2 x MSTB to 1 x 7/8" connector	24 V				
4 x MSTB	24 V				

IP65/67 panel mounting frames, connectors, and distributors, version 14

		Connectors		Y-distributor	H-distributor
					
Metal, square cutout	Plastic, square cutout	Metal, push-pull interlocking	Plastic, push-pull interlocking	Metal, push-pull interlocking	Metal, push-pull interlocking
1608249	1608294	1608074	1657892		
1608252	1608304		1608236		
1408235		1408234			
				1404799	
				1404812	
					1405387

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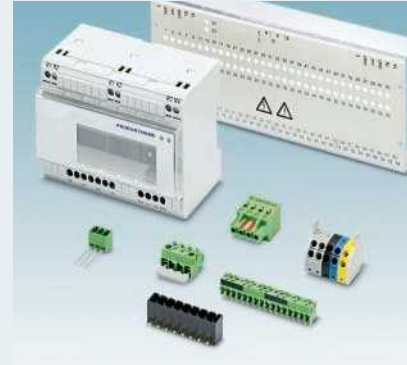
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