Everything you need for field installation

Everything you need for field installation from PHOENIX CONTACT

From LED machine lights and I/O systems to passive sensor/actuator cabling and the accompanying fieldbus components, Phoenix Contact offers a complete range of products and solutions for field installation. Various tested and certified products with M8 and M12 connection technology are available to meet the specific requirements of your application.

Reduce connection times with the SPEEDCON rapid interlock system, minimize the space requirements of your control cabinets, and render your systems even more efficient.

Phoenix Contact – your partner for field installation.

Contents

General information

Product overview

I/O systems for field installation
Axioline E

Axioline E is the I/O system with a block design for field installation. Open for all Ethernet-based communication protocols and available in two housing versions, Axioline E offers maximum flexibility for your individual solution. Furthermore, Axioline E is fast in installation, of particularly robust design and mechanical construction, and easy to handle.

The particularly compact M12 power:
One cable for all supply voltages simplifies installation.

Two Axioline E housing versions are available. Depending on the application, you can choose between a plastic and a metal housing.

sercos
the automation bus

PROFI BUS

EtherNet/IP

PROFI NET®

Modbus

EtherCAT®
Technology Group

Every network

No matter which network you prefer – Axioline E delivers the right I/Os, since it is open for all Ethernet-based communication protocols and the PROFIBUS fieldbus system.
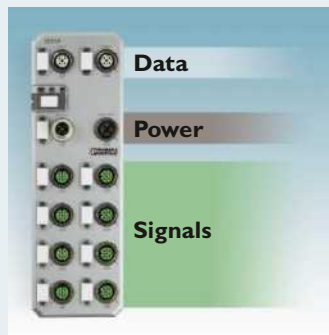
Data

Power

Signals

SPEEDCON *LOCKING*

Fast
The SPEEDCON rapid interlock system ensures fast and easy installation. The plug-in connectors are locked securely with just half a turn.

Robust
Axioline E features particularly vibration- and shock-proof housing. This facilitates its use even under the most adverse conditions.

Easy
The color-coded identification of functions simplifies startup operations for Axioline E devices. Clearly assigned signals facilitate diagnostics right on the slot.

Universal mounting plate
Axioline E in metal housing can be installed in a wide variety of ways, either directly using the mounting latches or - with the mounting latches collapsed - without tools using the universal mounting plate. This also facilitates rapid mounting on the DIN rail.

I/O systems for field installation
IO-Link

IO-Link is the standard for consistent communication, from the controller down to the lowest field level. Downtimes and maintenance work are reduced considerably through the use of Axioline E, since in addition to process data, parameter, diagnostic, and service data can also be transmitted to the controller.

The possible applications for IO-Link in industry are many and varied – see for yourself and render your machine or system even more cost effective.
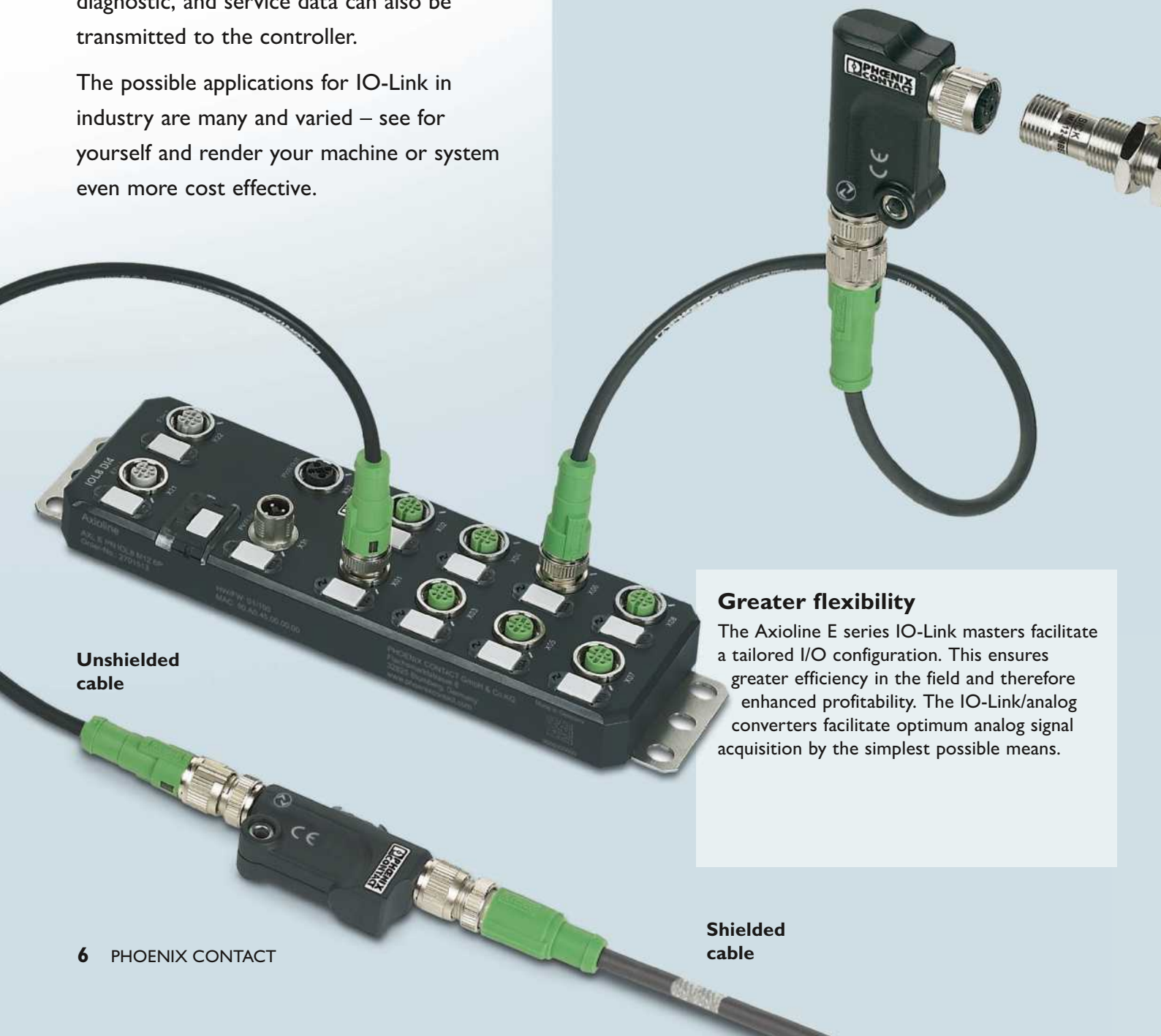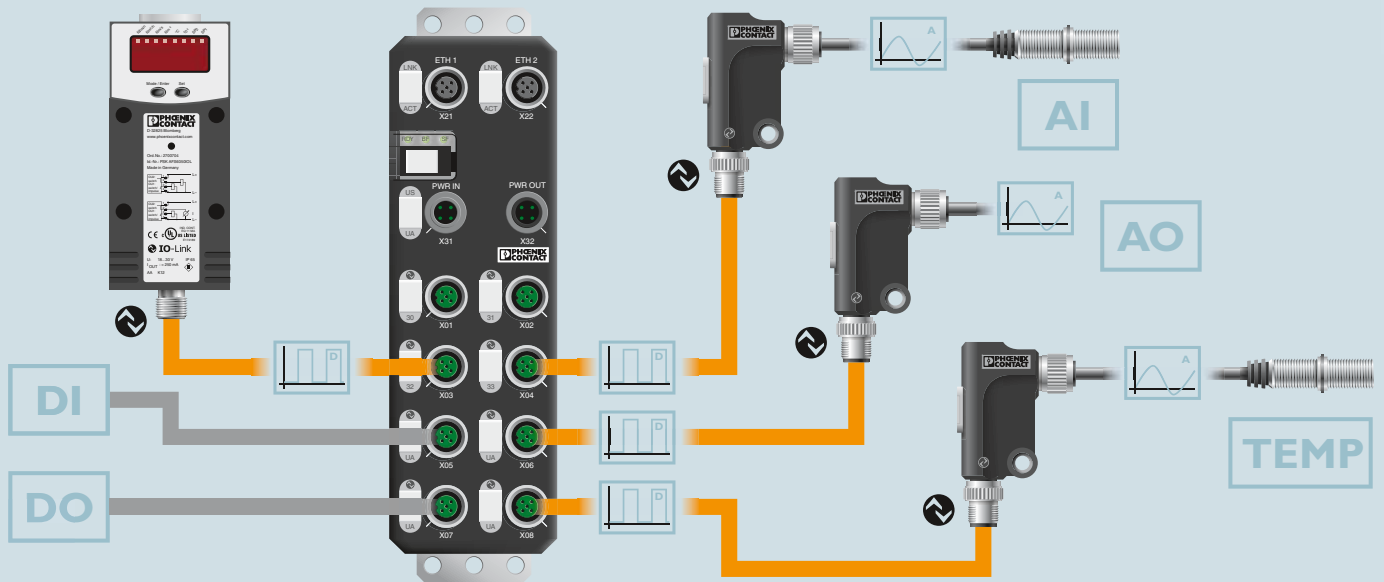
Unshielded cable

Greater flexibility

The Axioline E series IO-Link masters facilitate a tailored I/O configuration. This ensures greater efficiency in the field and therefore enhanced profitability. The IO-Link/analog converters facilitate optimum analog signal acquisition by the simplest possible means.

Shielded cable

DI

DO

AI

AO

TEMP

One device, numerous options

The Axioline E product range contains a highly functional IO-Link master for every network. Together with the IO-Link/analog converters, it enables flexible processing of the occurrence of signals in the field. The conversion of analog signals directly at the site of measurement and the digital transmission via unshielded cables simplify installation and result in the interference-free transmission of measured values.

The Axioline E series IO-Link master can be used in a very versatile manner. The following functions can be operated by using the

various operating modes of an IO-Link port:

• Digital standard signals
• Analog signals (in combination with the IO-Link/analog converters)
• IO-Link device communication (e.g., flow sensors, valve islands, photoelectric barriers or distance meters)

Large product portfolio

Phoenix Contact offers an extensive range of products for IO-Link. From IP67 I/O devices with a block or modular design, through IO-Link/analog converters right up to IO-Link masters with IP20. The appropriate cables and plug-in connectors are also available.

Savings potential

IO-Link/analog converters are directly connected to an analog sensor or positioned in the immediate vicinity. This greatly reduces or wholly eliminates the need for shielded cables. This facilitates particularly cost-effective analog communication.

IO-Link/analog converters

These converters are available in two designs (straight and angled) and for various functions and are therefore extremely flexible for the purpose of implementing individual solutions.

I/O systems for field installation Fieldline

From the control cabinet via a branch terminal right through to the field level – acquire signals directly in the field with Fieldline Modular and Fieldline Stand-Alone. Our components featuring M8 and M12 connections facilitate flexible deployment.

Openness to INTERBUS, PROFIBUS, DeviceNet, CANopen, and Ethernet networks is also an integral factor in choosing Fieldline as a long-term investment.

Fieldline Stand-Alone M12

- For acquiring simple, digital functions
- For use in highly distributed applications and with low numbers of I/Os
- Fast and easy installation
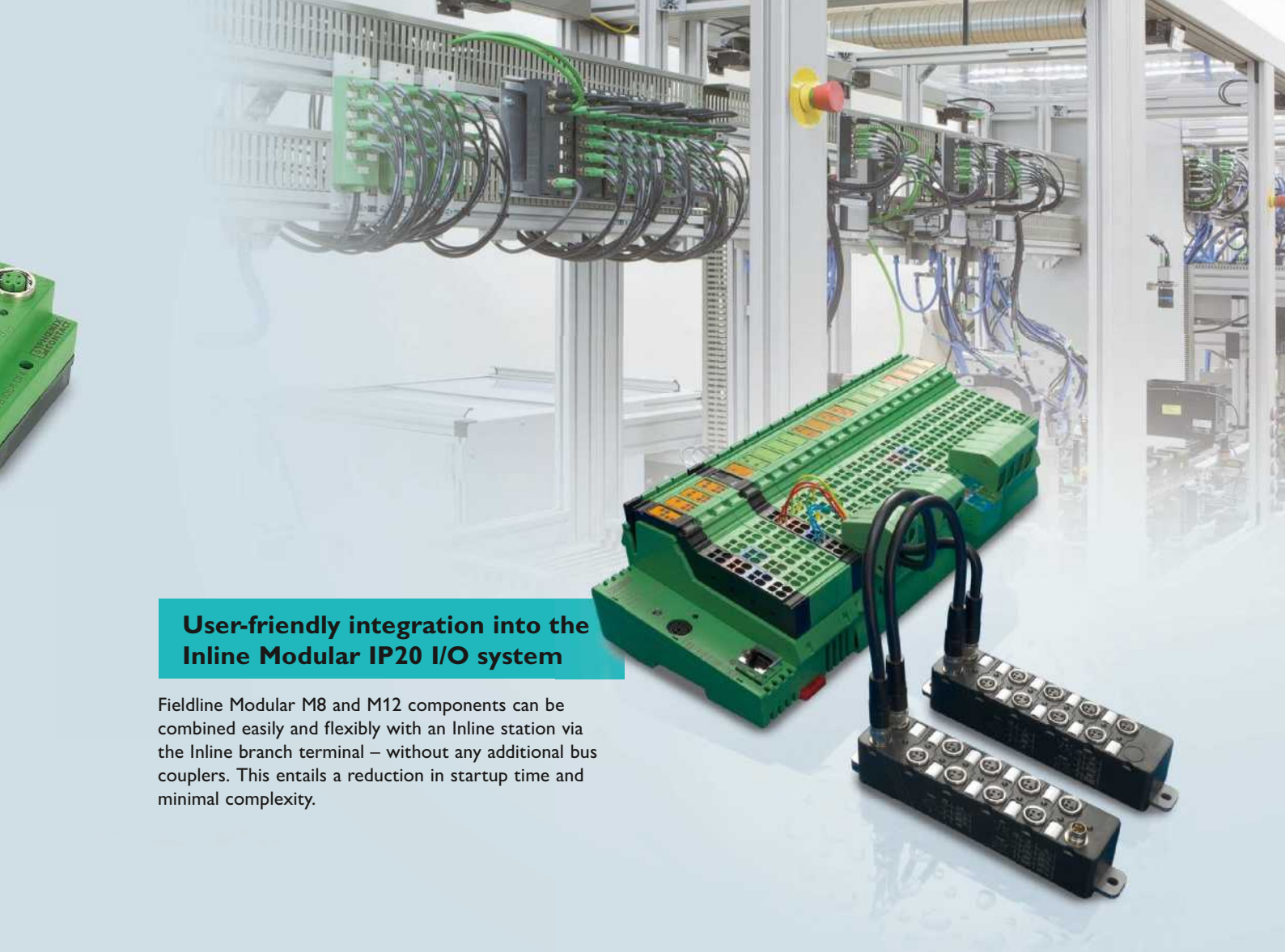
Fieldline Modular M12

- Adjustment in line with the number of individual I/Os, thanks to modularity
- Precise and high-performance diagnostics
- Optimum system planning thanks to network-independent station structure
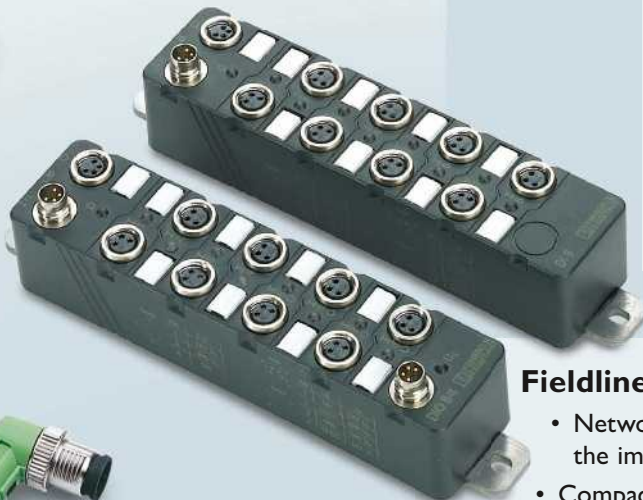
Fieldline Modular M8

- Networking of sensors and actuators in the immediate vicinity of the process
- Compact design of machines and systems, thanks to small housing dimensions
- Precise diagnostics in the local bus

User-friendly integration into the Inline Modular IP20 I/O system

Fieldline Modular M8 and M12 components can be combined easily and flexibly with an Inline station via the Inline branch terminal – without any additional bus couplers. This entails a reduction in startup time and minimal complexity.

Wireless signal transmission

Fieldline wireless I/O modules can be used close to the machine. There is no need to install cables for data transmission.

Fast installation – Plug & Turn

The SPEEDCON rapid interlock system reduces assembly times to a minimum.

Easy handling

The arrangement of the slots ensures optimum handling of plug-in connections.

Optimum assembly

The axial arrangement of fixing clips outside the housing enables easy and optimum assembly.

SPEEDCON LOCKING

I/O systems for field installation
AS-Interface

AS-Interface reduces your installation costs, as error-prone and complex parallel cabling is replaced by a single two-wire cable. AS-Interface therefore sets standards in the automation of future-oriented systems.

I/O devices, gateways, power supplies, and numerous accessories – Phoenix Contact offers AS-Interface components for a complete system.

Discover more about the M8 and M12 connection technology and increase the availability of your machine or system by using AS-Interface.

AS-Interface M8
- Networking of sensors and actuators in the immediate vicinity of the process
- Compact design of machines and systems thanks to small housing dimensions

AS-Interface M12
- For cost-effective networking of sensors and actuators in less complex networks
- Fast and easy installation

Tool-free contacting

AS-Interface devices are easy to install: press the AS-Interface flat-ribbon conductors into the guide aids and advance the electronics module. The devices are connected directly to the AS-Interface flat-ribbon conductor using the push-through technique.

In addition to I/O slaves, an AS-Interface network consists of other necessary system components. These include:

• An AS-Interface master (gateway)
• An AS-Interface power supply

In addition to AS-Interface components with IP67 protection for direct field installation, Phoenix Contact offers other I/O slaves with IP20 protection for control cabinet installation.
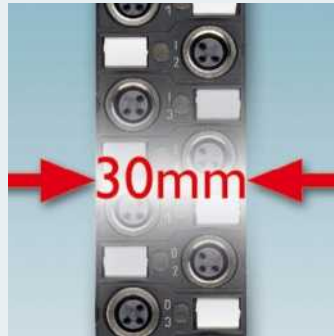
Fast installation – Plug & Turn

The SPEEDCON rapid interlock system reduces assembly times to a minimum.

Flexible mounting

AS-Interface modules can be mounted on level surfaces using standard M4 screws or simply snapped onto a DIN rail.

Narrow design width

The narrow housing width of 30 mm enables optimum mounting directly on 30 mm profiles where space is limited.

Optimum mounting

The axial arrangement of fixing clips outside the housing enables easy and optimum mounting.

PLD machine lights – light made smart

Make more from the lighting of your machine: with PLD (Phoenix Lighting Devices) machine lights from Phoenix Contact you can benefit from all the advantages of LED technology and save additional material costs and installation time.

Through the use of a communication interface, PLD machine lights create brand new possibilities, thereby increasing the efficiency of your machine.

Thanks to a wide range of mounting accessories and different options for integration in your machine, you can be sure of the required flexibility, even for system expansions or conversions.


PLD communication module

- Optimum integration in the machine thanks to direct control of lights via the shortest route
- Diagnostic information can be read out, shortening the troubleshooting and error removal process

Lighting interface

- Powerless switching saves on additional relays and switches with a high current carrying capacity
- In flashing mode, fast running processes can be monitored easily and inexpensively thanks to the stroboscope effect
- Continuous dimming offers individual light settings and further reduces energy costs
- Fault messages enhance machine availability
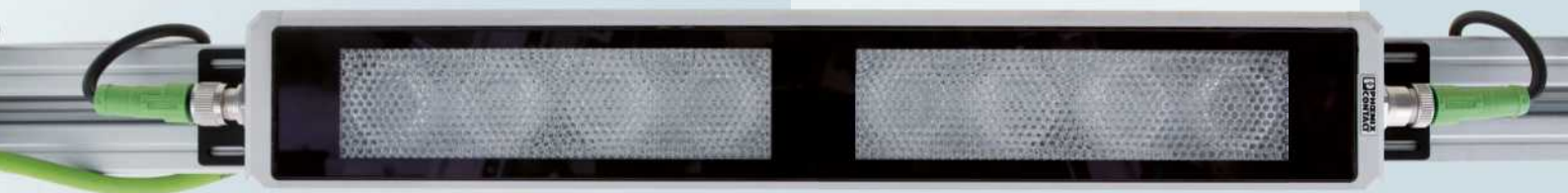
Optics

- Glare suppression ensures that operator performance is not impaired
- Different emission angles for individual and therefore optimum illumination

LED technology

- High-quality LEDs provide an increased service life of at least 65,000 hours
- The high color rendering index (CRI) ensures the undistorted reproduction of colors

Installation

- Series connections with the SPEEDCON M12 rapid interlock system save cabling time and material
- Various options for integration into the machine, thanks to flexible control and mounting

Protective functions

- Excellent protective functions against polarity reversal, excessively high supply voltages, and overtemperature prevent the early failure of the light
- Laminated safety glass protects people and machinery from shards of glass

SPEEDCON LOCKING

Ethernet switching in the field

The standard IP67 switch offers clear installation and mounting advantages. With its unique narrow design and symmetrical fixing clips with M6 threading, this switch is optimized for use in machine building. The high degrees of IP65, IP66, and IP67 protection facilitate universal use, even under harsh environmental conditions.

30 mm

Fast and easy mounting

• The SPEEDCON rapid interlock system saves installation time

• Thanks to the axial arrangement of the fixing clips outside the housing, the switch is easy to mount

Narrow design width
Thanks to its particularly narrow design, the switch can be easily integrated anywhere.

SPEEDCON *LOCKING*

PROFINET realtime switch

- Resistant switch, optimized for automotive applications
- The IRT switch consistently forwards the highest-priority PROFINET data packets
- Continual quality surveillance of the interference-free and diagnosable fiber optic paths
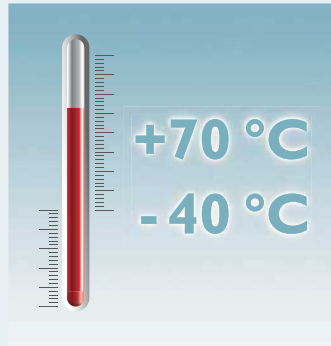
+70 °C
- 40 °C

mA
200
160
120
80
40
0

Ethernet plug-in connectors that can be assembled

Thanks to the IDC displacement connection, fast and easy installation in the field is possible for Ethernet plug-in connectors that can be assembled.
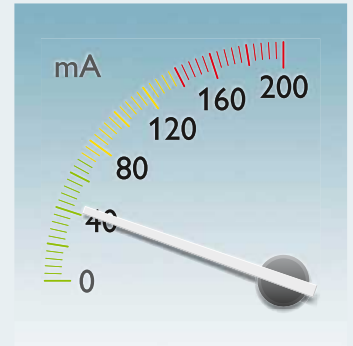
Y-distributor

The Y-distributor simplifies voltage distribution in the field, thanks to reduced wiring effort.

Extended temperature range

The extended temperature range enables universal use.
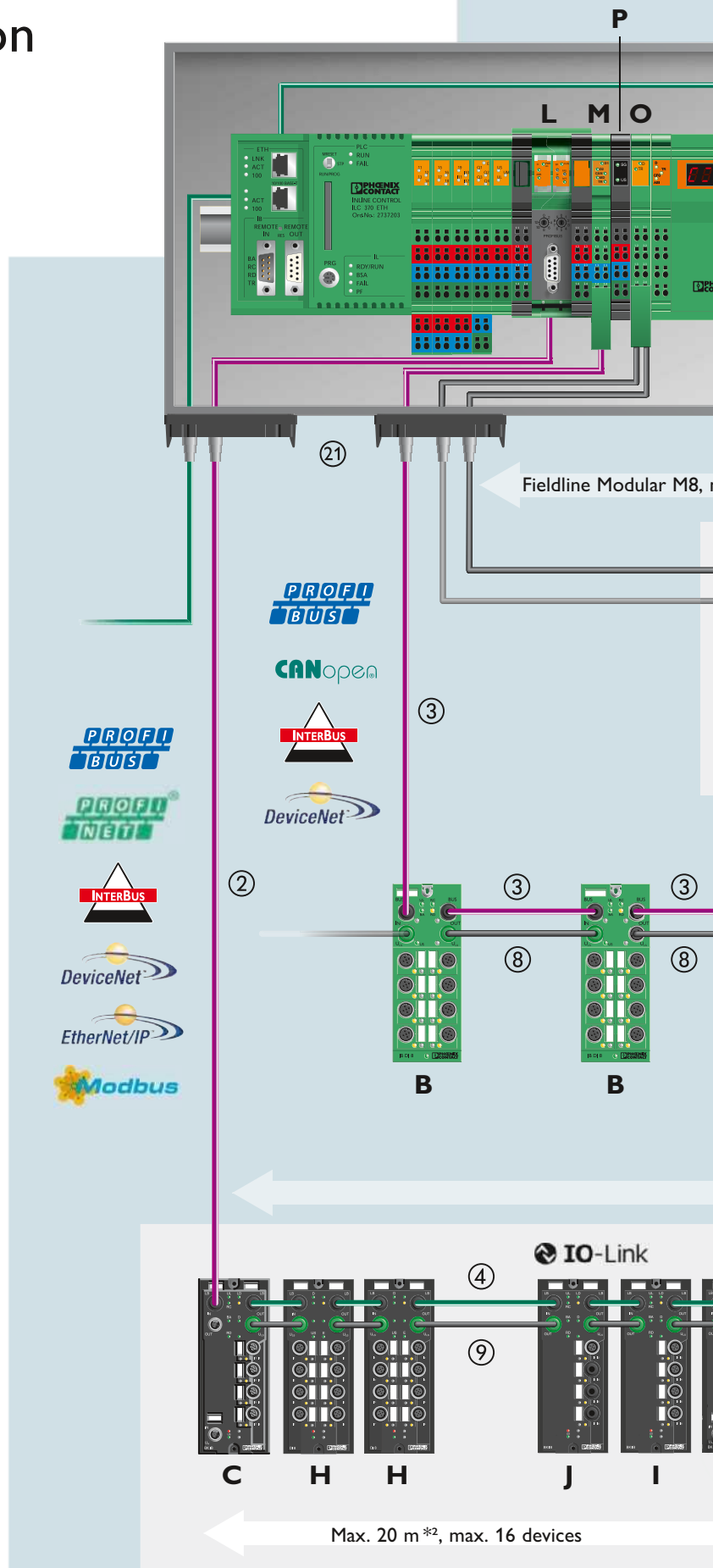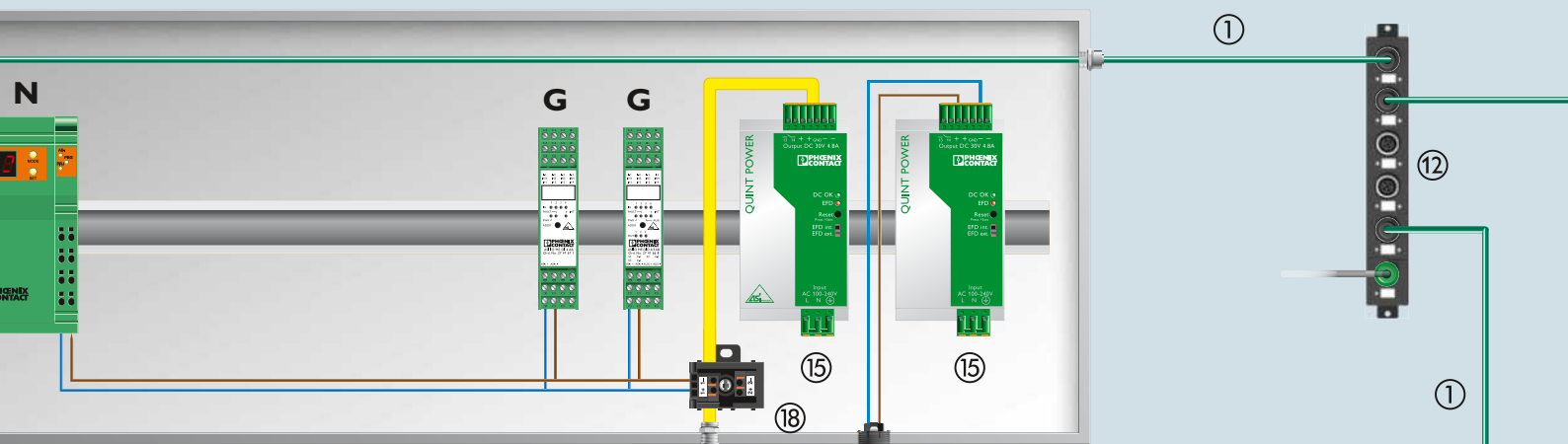
Low current consumption

Thanks to its particularly low power consumption, the switch is suitable for autonomous applications.

Easy system configuration directly in the field

Complex design made easy: our block and modular design I/O systems can be combined seamlessly to create a perfectly tailored automation solution. Fieldline Modular can be combined with the Inline Modular IP20 system without any problems; thanks to the different housing versions and the network openness of Axioline E, flexible and easy connection to virtually any network is possible. The additional possibilities that IO-Link communication entails and the wide range of Phoenix Contact cables result in a complete range of products and solutions for field installation.

A typical I/O system configuration is shown here and you can see for yourself the wide range of possibilities.

Fieldline Modular M8, m

PROFIBUS

CANopen

INTERBUS

DeviceNet

PROFINET

INTERBUS

DeviceNet

EtherNet/IP

Modbus

IO-Link

Max. 20 m *² , max. 16 devices

N

G **G**

QUINT POWER

DC OK
EFD
Reset
EFD int.
EFD ext.

Input
AC 100-240V
L   N

⑮

QUINT POWER

DC OK
EFD
Reset
EFD int.
EFD ext.

Input
AC 100-240V
L   N

⑮

①

⑫

⑱

①

⑳

max. 40 m *¹, max. 16 devices

F

K **K** **K**

E **E**

⑰

⑥

A

⑯
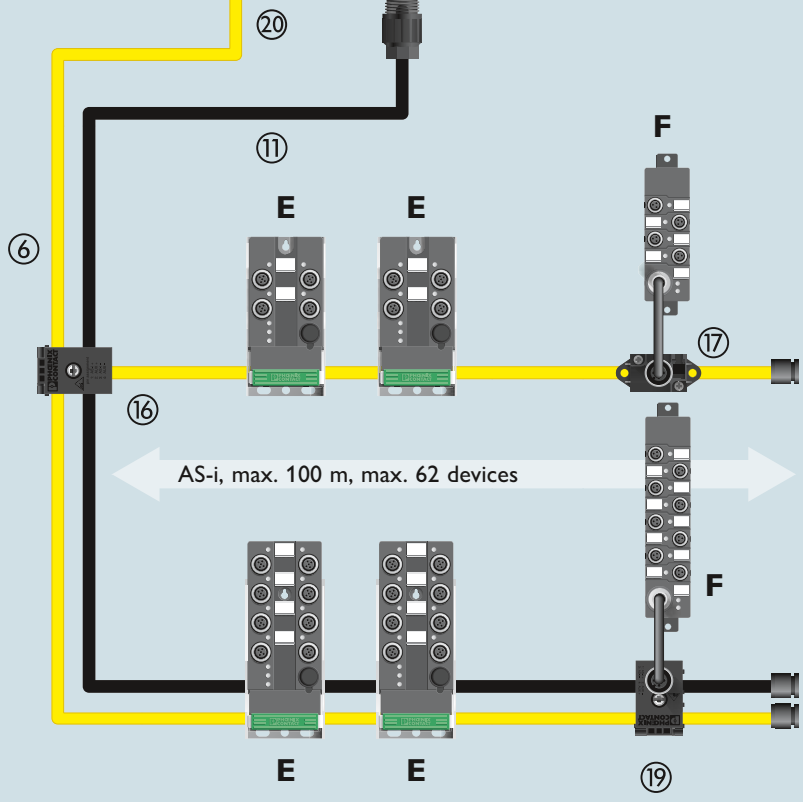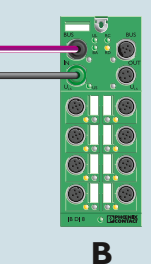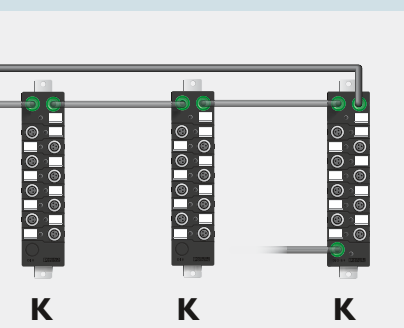
AS-i, max. 100 m, max. 62 devices

F

B

E **E**

ASi

⑲

⑪

Fieldline Modular M12, max. 40 m *³, max. 16 devices

⑬

⑤

K **K**

⑤

Bluetooth

R

Q

⑩

⑭ ⑭

PROFI NET®

EtherNet/IP™

EtherCAT.®
Technology Group

Modbus

PROFI BUS

IO-Link

AI
AO
TEMP

A

D

A

A

A

A
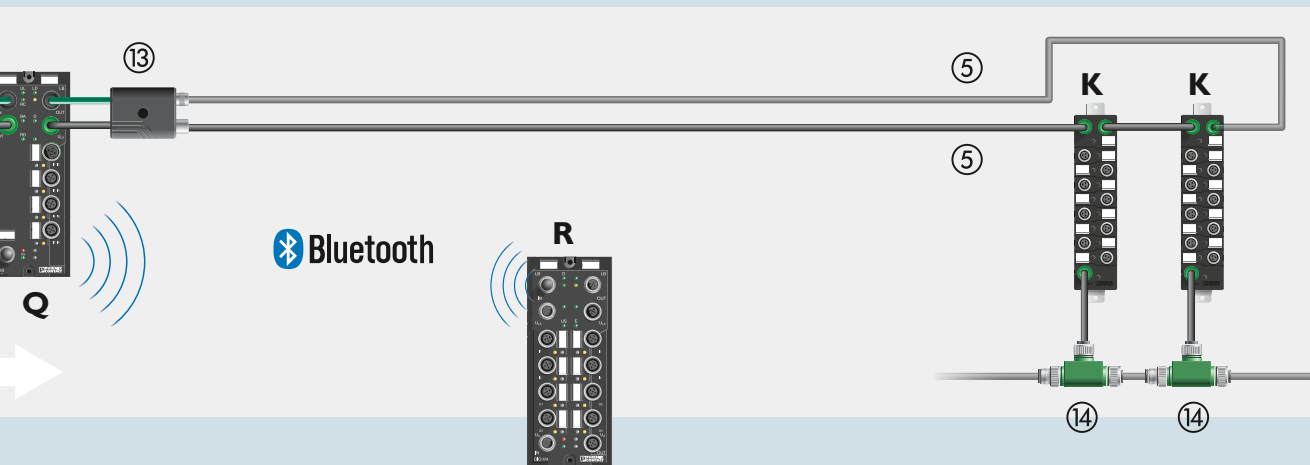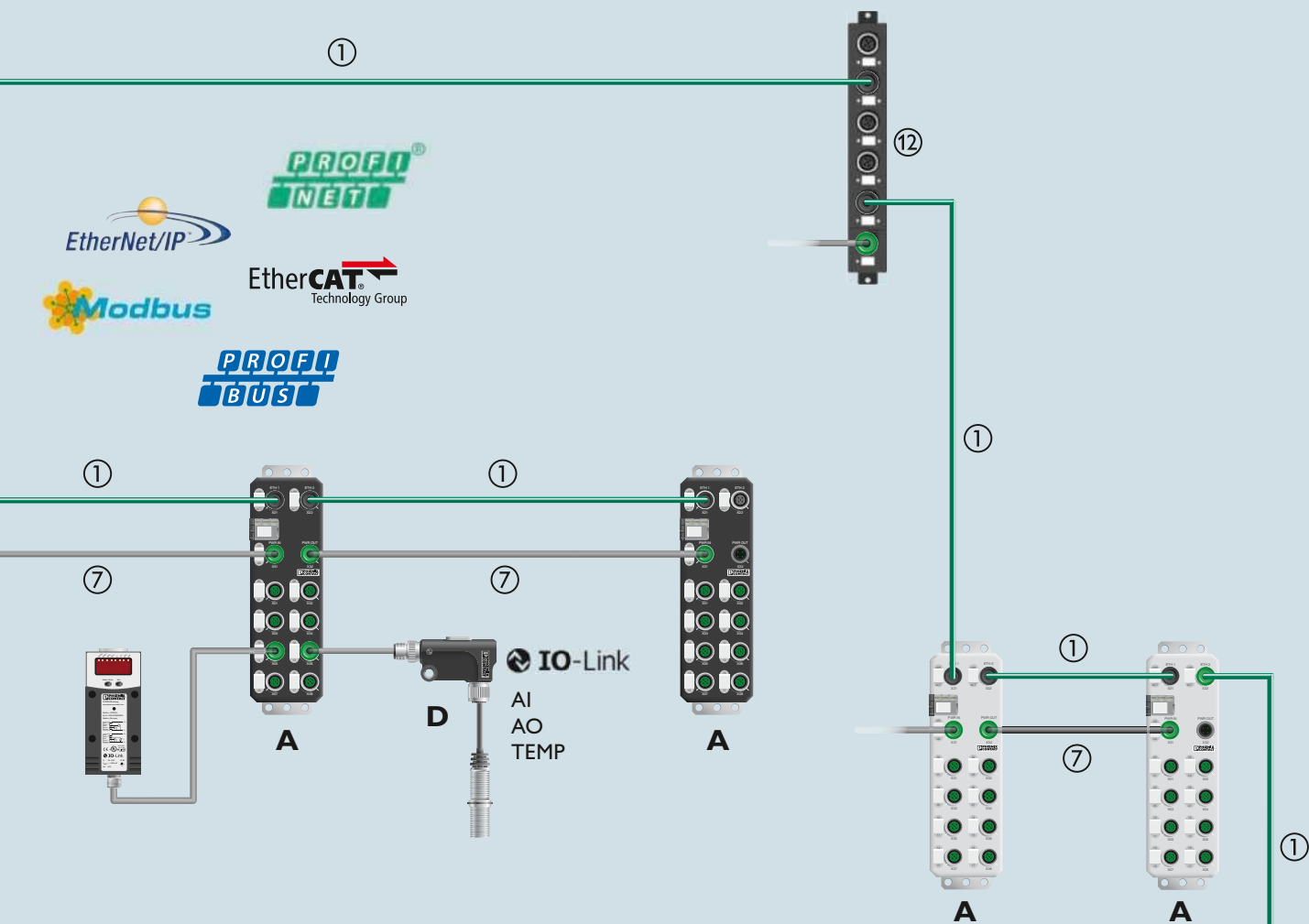
Notes

*1 including cables up to the Inline terminal block

*2 if only FLM M12 local bus devices are used

*3 if FLM M8 and FLM M12 local bus devices are used in combination

The colors of the cables do not necessarily correspond to the actual cable colors. Please refer to the key for the actual type.

I/O components

Devices with fieldbus connection

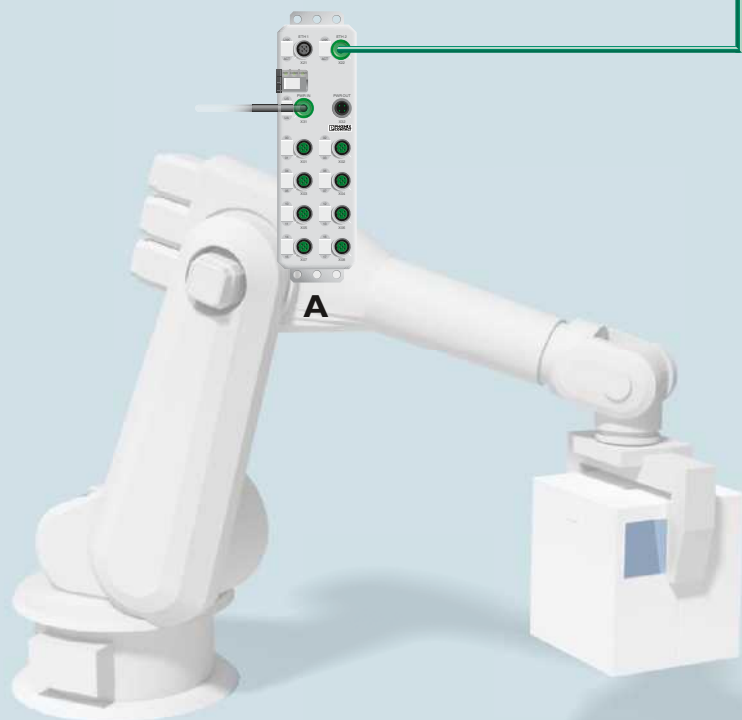|		
A	Axioline E	→ Page 26
B	Fieldline Stand-Alone	→ Page 27
C	Fieldline Modular bus coupler	→ Page 28
D	IO-Link/analog converter	→ Page 29
E	AS-Interface M12	→ Page 34
F	AS-Interface M8	→ Page 34
G	AS-Interface IP20	→ Page 34

Local bus devices

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I	Fieldline Modular M12, analog	→ Page 28
J	Fieldline Modular M12, IO-Link	→ Page 28
K	Fieldline Modular M8	→ Page 28
L	Inline PROFIBUS master (IP20)	→ Page 29
M	Inline CAN master (IP20)	→ Page 29
N	Inline AS-Interface master (IP20)	→ Page 34
O	Inline branch terminal for Fieldline Modular (IP20)	→ Page 29
P	Inline Modular segment terminal	→ Page 29

Wireless I/O devices

Q	Fieldline Modular Wireless I/O base station	→ Page 28
R	Fieldline Modular Wireless I/O device	→ Page 28

The corresponding components in the topology shown are examples. For further product information, please refer to the product overview pages or our website.

Network components

Network cables

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②	PROFIBUS cables	→ Page 32
③	CAN cable	→ Page 32
④	Local bus cable for Fieldline Modular M12	→ Page 32
⑤	System cable for Fieldline Modular M8	→ Page 33
⑥	AS-Interface flat-ribbon conductor	→ Page 36

Power cables

⑦	Power cables for Axioline E	→ Page 33
⑧	Power cables for Fieldline Stand-Alone	→ Page 33
⑨	Power cables for Fieldline Modular M12	→ Page 33
⑩	Power cables for Fieldline Modular M8	→ Page 33
⑪	AS-Interface power cables	→ Page 36

Infrastructure components

⑫	IP67 standard switch	→ Page 30
⑬	Fieldline Modular system components Adapter	→ Page 29
⑭	T-distributor, M12 plug to 2 x M12 socket	→ Page 55
⑮	AS-Interface power supply	→ Page 34
⑯	AS-Interface H-distributor	→ Page 35
⑰	AS-Interface distributor	→ Page 35
⑱	AS-Interface distributor	→ Page 35
⑲	AS-Interface distributor	→ Page 35
⑳	Panel feed-though	→ Page 35
㉑	CES cable entry system → See Catalog 4 or our website	

Distributed cabling with passive distributor systems

In distributed connection technology, passive distributor systems are the link between I/O devices and the PLC. Phoenix Contact offers the most comprehensive range of sensor/actuator cabling on the market. Passive M8 and M12 cabling, consisting of distributor boxes, cables, valve connectors, plugs that can be assembled, and comprehensive accessories, is available from stock as standard.

M12

- Fast and easy installation thanks to the SPEEDCON rapid interlock system
- Sensor/actuator cable with different cable qualities in 3- to 8-pos. format
- Versions for different applications

M8

- Flexible mounting thanks to drill holes in the center and on the side
- Easy mounting thanks to the double-row arrangement of the slots
- Sensor/actuator cable with different cable qualities in 3- to 6-pos. format
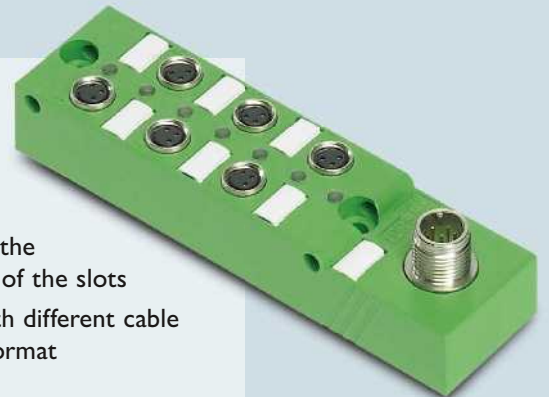
Everything from a single source

In addition to an extensive range of products for cabling sensors and actuators in the field, mounting and marking materials are available for all requirements.
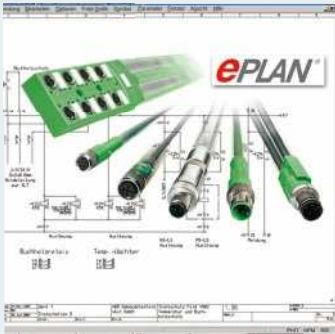
Quick linking with EPLAN

PLUSCON field project supports EPLAN 5 users when selecting products for sensor/actuator cabling. By using predefined macros, the software is able to select the appropriate sensor/actuator boxes and cables automatically.

Configurable materials

In order to meet your special requirements, you require solutions that are just as special. Benefit from our wide selection of cable types and plug-in connectors. Configure your individual version tailored precisely to your requirements.

By choosing a custom cable length from 0.2 to 40 m, you can also avoid unnecessary cable loops in your system.

Customer-specific versions

Despite our extensive range of industrial plug-in connectors, solutions for customer requirements cannot always be provided from the standard product range.

The Service Center for industrial plug-in connectors at Phoenix Contact will transform your requirements into a custom product within just a few days.

Marking and tools

Take a look at our range of conductor and cable markings: we provide the optimum marking solution for every application.

A large range of suitable tools is also available.

Passive distributor systems for special requirements

For requirements that go beyond the classic specifications for industrial environments, Phoenix Contact offers a range of specially tailored product series.
With a suitable range of materials to choose from, nothing stands in the way of the long-term use of products outdoors, in the food industry or in robots and drag chains.

Marking material is also available for applications exposed to particularly high loads.

Range of products for the food industry

- M12 stainless steel flush-type plug-in connectors and plug-in connectors that can be assembled
- Assembled 4- and 5-pos. hygienic and washdown design sensor/actuator cables
- Sensor/actuator boxes with stainless steel housing and a permanently connected PVC master cable

Range of products for outdoor applications

- M12 flush-type plug-in connectors and plug-in connectors that can be freely assembled
- Assembled Ethernet and sensor/actuator cables
- Sensor/actuator boxes with corrosion-resistant M12 metal knurls

Range of products for robot and drag chain applications

- Assembled sensor/actuator cables
- Sensor/actuator boxes with highly flexible master cable
- Highly flexible master cable rings for individual applications

M12 cabling from Phoenix Contact –
reliable, even under extreme conditions

In the food industry

... hygiene safety is accorded top priority. Our range for the food industry is corrosion resistant thanks to the use of stainless steel and is easy to clean thanks to the special design. Our plug-in connectors with a hygienic design are perfect for areas that come into contact with products where particularly high demands are placed on the components that are used.

Use safe and reliable cabling that withstands aggressive cleaning agents and processes.

Outdoor applications such as construction machinery

... are exposed to extreme weather influences and subject to the associated high demands placed on the components that are used. Thanks to the use of high-quality materials, influences such as corrosion, UV and ozone concentrations, and extreme temperatures are not a problem for the M12 cabling for outdoor applications.

Ensure the availability of your system with this extremely robust cabling, for example, in traffic, wind power, photovoltaics, construction vehicles, snow cats or ski lifts.

In robots and drag chains

... the moving parts are subject to high mechanical loads. With more than 10 million cycles, the cables that we use support a high degree of torsion and bending. They are also resistant to welding sparks.

Render your cabling stable for use in operations exposed to high mechanical loads, such as body construction.

Save time with the rapid interlock system and connection technology

Phoenix Contact offers four different connection technologies for the easy and flexible on-site assembly of sensor, power, and bus cables.

The M8 plug-in connectors are therefore available with a conventional screw or solder connection, a pierce connection or a QUICKON IDC displacement connection.

Depending on the number of positions, the M12 series is available with a screw, spring, and QUICKON IDC displacement connection.

The SPEEDCON rapid interlock system offers an additional time saving of 90%. Based on the principle of "Plug & Turn", the M12 plug-in connectors are locked securely with just a half turn.

When connecting to the new SPEEDCON rapid interlock system, the user does not have to get used to anything new, since the "Plug & Turn" principle has been retained. The noticeable click when it engages ensures an optimum plug-in connection.

SPEEDCON
LOCKING

Compatibility

The SPEEDCON rapid interlock system is based on the principle of "Plug & Turn". It is 100% compatible with all M12 plug-in connectors. This means that you do not need to get used to anything new.

Fast assembly

Just half a turn and the SPEEDCON M12 rapid interlock system creates the perfect plug-in connection, reducing your assembly time by 90%.

Safe operation

You may rest assured that SPEEDCON meets all the electrical and mechanical properties of a conventional M12 plug-in connection, plus all accepted standards and requirements, such as:

- Pin assignment, requirements, and testing according to IEC 61076-2-101
- IP65/IP67 protection according to IEC 60947-2
- IP65/IP67 protection according to EN 60529
- Vibration and shock resistance according to IEC 60512-4

Screw connection

The M8 and M12 plug-in connectors with a screw connection are considered the classic solution in connection technology. A variety of cables and cable qualities can be assembled on site quickly and without errors.
The M12 versions are also available with the SPEEDCON rapid interlock system.

QUICKON IDC displacement connection

QUICKON provides the fastest connection for M8 and M12 plug-in connectors. Individual conductors no longer need to be stripped. When contacted, an insulation displacement contact cuts through the wire insulation and makes spring-loaded, vibration-resistant, and gas-tight contact with the litz wire. The plug-in connectors with plug and socket contacts are also available with the SPEEDCON rapid interlock system.

Spring connection

M12 plug-in connectors with a spring connection ensure the easy and reliable wiring of solid and stranded conductors, with or without ferrules. The comprehensive product range consists of 4- and 5-pos. versions in straight and angled format. The plug types with metal housing are suitable for EMC requirements.

Pierce connection

The pierce connection technology now also enables easy and reliable assembly of compact M8 plug-in connectors. The electrical connection is made by a contact pin that axially pierces the single wires. In doing so, the contact forms the individual wires into an adapted contact zone. The pierce connection eliminates time-consuming soldering or screwing and establishes a reliable connection in the smallest possible space.

I/O systems for field installation

Axioline E

A

	DI	DI DO	DI DO	DI DO	DI FKT
	16 digital inputs	16 digital configurable inputs/ outputs 500 mA	8 digital inputs, 8 digital outputs 500 mA	8 digital inputs, 4 digital outputs 2 A	4 Class A IO-Link ports, 4 Class B IO-Link ports, 4 digital inputs
PROFINET	Plastic 2701510	Plastic 2701511	Plastic 2701509	Plastic 2701512	Plastics 2701513
	Metal 2701516	Metal 2701517	Metal 2701515	Metal 2701518	Metal 2701519
EtherNet/IP	Plastic 2701493	Plastic 2701494	Plastic 2701492	Plastic 2701495	Plastic 2701496
	Metal 2701488	Metal 2701489	Metal 2701487	Metal 2701490	Metal 2701491
sercos the automation bus	Plastic 2701544	Plastic 2701545	Plastic 2701542	Plastic 2701546	Plastic 2701547
	Metal 2701549	Metal 2701550	Metal 2701548	Metal 2701551	Metal 2701552
Modbus	Plastic 2701533	Plastic 2701534	Plastic 2701532	Plastic 2701535	Plastic 2701536
	Metal 2701538	Metal 2701539	Metal 2701537	Metal 2701540	Metal 2701541
EtherCAT Technology Group	Plastic 2701521	Plastic 2701522	Plastic 2701520	Plastic 2701523	Plastic 2701524
	Metal 2701526	Metal 2701528	Metal 2701525	Metal 2701529	Metal 2701531
PROFIBUS	Plastic 2701498	Plastic 2701499	Plastic 2701497	Plastic 2701502	Plastic 2701503
	Metal 2701505	Metal 2701506	Metal 2701504	Metal 2701507	Metal 2701508

Fieldline Stand-Alone

B	DI	DI	DI DO	DI DO	DO	DI FKT ⚙ IO-Link
	8 digital inputs	16 digital inputs	4 digital inputs, 4 digital outputs 2 A	8 digital inputs, 8 digital outputs 500 mA	8 digital outputs 2 A	4 Class A IO-Link ports, 4 Class B IO-Link ports, 4 digital inputs
INTERBUS	2736013	2736314	2736026	2736285	2736039	–
PROFIBUS	2736123	2736220	2736107	2736372	2736110	2773380
DeviceNet	2736068	2736327	2736042	2736398	2736055	–
CANopen	2736097	2736479	2736071	2736482	2736084	–

The colored letters refer to the topology; see pages 16 to 19.

Fieldline Modular

	INTERBUS	PROFINET	PROFIBUS	Modbus	EtherNet/IP	DeviceNet
BK **C** Bus coupler for opening a Fieldline Modular local bus	2736301	2736741	2736330	2736097	2736916	2736343
DI **DO** **H**	8 digital inputs, M12 2736288	16 digital inputs, M12 2736835	4 digital inputs, 4 digital outputs 2 A, M8 2736369	8 digital inputs, 8 digital outputs 500 mA, M12 2736848	16 digital inputs, 16 digital outputs 500 mA, M12 2736738	8 digital outputs 500 mA, M12 2736291
DI **DO** **K**	8 digital inputs, M8 2773348	4 inputs, 4 configurable inputs/outputs 500 mA, M8 2773351	4 digital outputs 2 A, M8 2736932	8 digital outputs 500 mA, M8 2736893		
AI **DI** **FKT** IO-Link	**I** 4 configurable analog inputs, M12 2736453	**I** 4 configurable analog outputs, M12 2736466	**I** 4 configurable temperature inputs 2736819	**J** 4 Class A IO-Link ports, 4 digital inputs 2736990		
DI **DO** Bluetooth	**Q** Bluetooth base station for up to three Bluetooth devices 2736770	**R** Bluetooth I/O slave with 16 digital inputs, M12 2693208	**R** Bluetooth I/O slave with 8 digital inputs and 8 digital outputs 500 mA, M12 2736767			

Accessories for I/O systems

IO-Link/analog converters

	1 analog input, current, straight	1 analog input, voltage, straight	1 analog temperature input, RTD, straight	1 analog output, current, straight	1 analog output, voltage, straight
IO-Link **D** AI AO	2700338	2700336	2700352	2700351	2700350
IO-Link **D** AI AO	1 analog input, current, angled	1 analog input, voltage, angled	1 analog temperature input, RTD, angled	1 analog output, current, angled	1 analog output, voltage, angled
	2700275	2700273	2700305	2700282	2700278

Mounting plates

	Mounting plate for an Axioline E metal device	Mounting plate for Fieldline Modular for up to 5 devices	Mounting plate for Fieldline Modular for up to 7 devices
	2701761	2736660	2736673

Inline Modular system components (IP20)

	P	**O**	**O**	INTERBUS	**L** PROFIBUS	**M** CANopen
	Inline Modular segment terminal	Fieldline Modular M8 branch terminal	Fieldline Modular M8/M12 branch terminal	INTERBUS branch terminal with remote bus branch	PROFIBUS master terminal	CAN master terminal
	2861373	2737009	2736903	2861441	2700630	2700196

I/O system components with IP67

⑬ Adapter for connecting Fieldline Modular M8 devices to a Fieldline Modular M12 local bus	M12 screw plug for unused M12 sockets	M12 sealing cap for unused M12 plugs	M8 screw plug for unused M8 sockets	M12 screw plug for unused M12 sockets, aluminum
2736961	1680539	1560251	1682540	1503302

The colored letters and the colored number refer to the topology; see pages 16 to 19.

Ethernet switching in the field

IP67 switches

Standard switch
with 5 Ethernet ports

2700200

Switch for PROFINET IRT
with 4 Ethernet ports

2700697

Push/pull plug-in connector

RJ45 to RJ45			
	5 m	1416165	
	Variable	1416499	
RJ45 to open cable end			
	5 m	1416162	
	Variable	1416499	
MSTB to MSTB			
	5 m		1609196
	Variable		1609206

The colored number refers to the topology; see pages 16 to 19.

LED machine lighting

PLD machine lights

Type	Order No.	**PLD M 360 W-50 200**	2701689	**PLD M 360 W-50 365**	2701690	**PLD M 360 W-50 695**	2701691
Length		200 mm		365 mm		695 mm	
Emission angle		50°		50°		50°	
Average illumination (1 m² area at a distance of 0.5 m)		330 lx		660 lx		1200 lx	
Maximum illumination (distance of 0.5 m)		2350 lx		3800 lx		5200 lx	
Power consumption		5.5 W		11 W		22 W	
Type	Order No.	**PLD M 360 W-100 200**	2701692	**PLD M 360 W-100 365**	2701693	**PLD M 360 W-100 695**	2701694
Length		200 mm		365 mm		695 mm	
Emission angle		100°		100°		100°	
Average illumination (1 m² area at a distance of 0.5 m)		330 lx		630 lx		1100 lx	
Maximum illumination (distance of 0.5 m)		680 lx		1200 lx		2000 lx	
Power consumption		9 W		18 W		36 W	

PLD communication modules
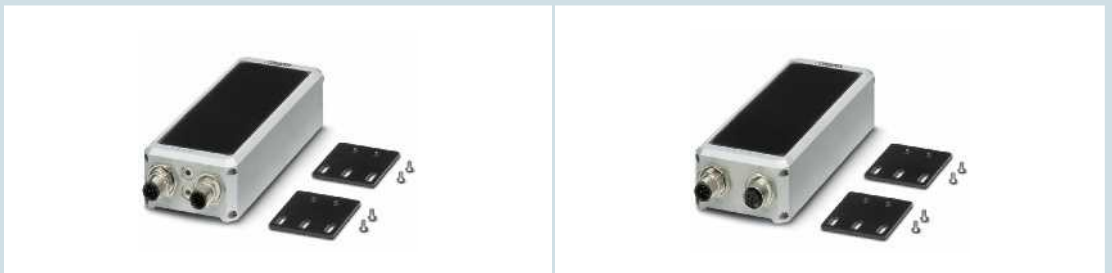
Type	Order No.	**PLD CM 360 PB**	2701695	**PLD CM 360 PN**	2701696
Bus interface		PROFIBUS		PROFINET	

PLD mounting accessories

Type	Order No.	**PLD M-ME MB/90**	2701878	**PLD M-ME MB**	2701879	**PLD M-ME AP**	2701880	**PLD M-ME MP**	2701881
Description		90° mounting bracket		Swivel mounting bracket		Adapter plate for mounting on narrow machine parts		Mounting plate (replacement part, supplied as standard)	

Bus cables with M12 plug-in connector
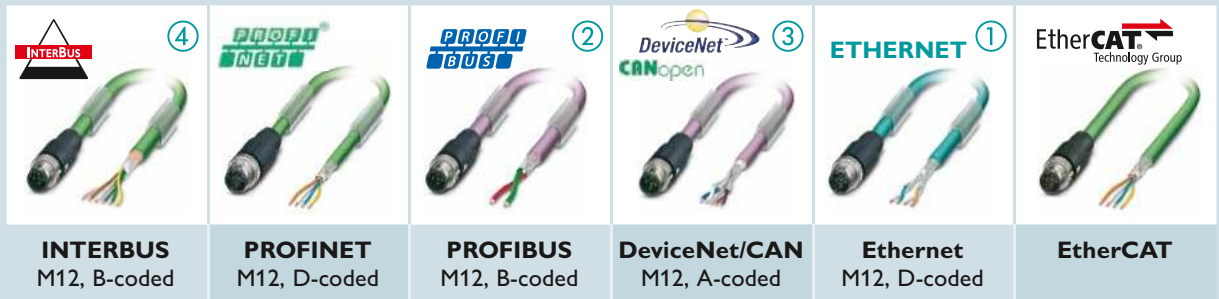
	INTERBUS M12, B-coded	PROFINET M12, D-coded	PROFIBUS M12, B-coded	DeviceNet/CAN M12, A-coded	Ethernet M12, D-coded	EtherCAT
Straight plug, free cable end						
1 m	–	1407495	–	–	1407356	1407557
2 m	1517877	1407496	1518025	1518177	1407357	1407558
5 m	1517880	1407497	1518038	1518180	1407358	1407559
10 m	1517893	1407498	1518041	1518193	1407359	1407560
15 m	1517903	–	–	–	–	–
Variable	1537996	1408640	1538050	1538115	1408713	1408600
Straight socket, free cable end						
1 m	–	1407528	–	–	1407380	–
2 m	1517916	1407529	1518067	1518216	1407381	–
5 m	1517929	1407530	1518070	1518229	1407382	–
10 m	1517932	1407531	1518083	1518232	1407383	–
15 m	1517945	–	1518096	1518245	–	–
Variable	1538018	1408623	1538076	1538131	1408697	1408590
Straight plug, straight socket						
0.13 m	1518478	–	–	–	–	–
0.3 m	1517958	–	1518106	1518258	–	–
0.5 m	1517961	–	1518119	1518261	–	–
1 m	1517974	1407553	1518122	1518274	1407400	–
2 m	1517987	1407554	1518135	1518287	1407401	–
5 m	1517990	1407555	1518148	1518290	1407402	–
10 m	1518009	1407556	1518151	1518300	1407403	–
15 m	1518012	–	1518164	1518313	–	–
Variable	1538034	1408617	1538092	1538157	1408692	1408586
Straight plug, straight plug						
1 m	–	1407524	–	–	1407376	1407569
2 m	–	1407525	–	–	1407377	1407570
5 m	–	1407526	–	–	1407378	1407571
10 m	–	1407527	–	–	1407379	1407572
Variable	1433207	1408634	1433252	1433294	1408706	1408597

Termination resistors, M12 plug

FOUNDATION Fieldbus	PROFIBUS	DeviceNet/ CANopen®	CC-Link	
1431403	1507803	1507816	1558470	

sercos
the automation bus

Straight plug, free cable end	
2 m	1419172
Straight plug, straight plug	
2 m	1419169

Bus and power cables with M8 or M12 plug-in connector

	⑤		⑦	⑨	⑧	⑩
	System cable M8, shielded	System cable M8	Power, 4-pos. M12, T-coded	Power, 5-pos. M12, A-coded	Power, 4-pos. M12, A-coded	Power, 4-pos. M8
Straight plug, free cable end						
1 m	–	–	1408812	–	–	–
2 m	1543249	–	1408813	1518326	1555606	–
5 m	1543252	–	1408814	1518339	1555619	–
10 m	1543265	–	1408815	1518342	1555622	–
15 m	1543278	–	–	1518355	1555635	–
20 m	1543281	–	–	–	–	–
Variable	–	–	–	–	–	–
Straight socket, free cable end						
1 m	–	–	1408823	–	–	–
2 m	1543294	1543582	1408824	1518368	1555648	1543582
5 m	1543304	1534818	1408825	1518371	1555651	1534818
10 m	1543317	1543595	1408826	1518384	1555664	1543595
15 m	1543320	–	–	1518397	1555677	1543605
20 m	1543333	1543618	–	–	–	1543618
Variable	–	–	–	–	–	–
Straight plug, straight socket						
0.13 m	1543346	–	–	1518481	–	–
0.3 m	1543511	–	–	1518407	1555680	–
0.5 m	1543524	–	–	1518410	1555693	–
1 m	1543537	–	1408808	1518423	1555703	–
2 m	1543359	–	1408809	1518436	1555716	–
5 m	1543362	–	1408810	1518449	1555729	–
10 m	1543375	–	1408811	1518452	1555732	–
15 m	1543388	–	–	1518465	1555745	–
20 m	1543391	–	–	–	–	–
Variable	–	–	–	–	–	–
Angled plug, free cable end						
1 m	–	–	1408816	–	–	–
2 m	1550850	–	1408819	–	–	–
5 m	1550863	–	1408820	–	–	–
10 m	1550876	–	1408822	–	–	–
15 m	1550889	–	–	–	–	–
20 m	1550892	–	–	–	–	–
Variable	–	–	–	–	–	–
Angled socket, free cable end						
1 m	–	–	1408827	–	–	–
2 m	1550902	1553077	1408828	–	–	1553077
5 m	1550915	1553080	1408829	–	–	1553080
10 m	1550928	1553093	1408830	–	–	1553093
15 m	1550931	–	–	–	–	1553103
20 m	1550944	1553116	–	–	–	1553116
Variable	–	–	–	–	–	–
Angled plug, angled socket						
0.13 m	1550957	–	–	–	–	–
0.3 m	1550960	–	–	–	–	–
0.5 m	1550973	–	–	–	–	–
1 m	1550986	–	–	–	–	–
2 m	1550999	–	–	–	–	–
5 m	1551008	–	–	–	–	–
10 m	1551011	–	–	–	–	–
15 m	1551024	–	–	–	–	–
20 m	1551037	–	–	–	–	–
Variable	–	–	–	–	–	–

The colored numbers refer to the topology; see pages 16 to 19.

AS-Interface

Fieldline Extension M12

DI DO **E**	4 digital inputs, M12	4 digital outputs 2 A, M12	2 digital inputs, 2 digital outputs 2 A, M12	4 digital inputs, 3 digital outputs 2 A, M12	4 digital inputs, 4 digital outputs 2 A, M12
	2773429	2773458	2773432	2773445	2773474

Fieldline Extension M8

DI DO **F**	4 digital inputs, M8	4 digital inputs, 4 digital outputs 1 A, M8			
	2773403	2773416			

AS-Interface IP20

DI DO **G**	4 digital inputs, COMBICON	4 digital inputs, 3 digital outputs 1 A, COMBICON	4 digital inputs, 4 digital outputs 0.7 A, COMBICON		
	2741671	2741668	2773542		

AS-Interface system components

		N	⑮	⑮
Gateway for PROFIBUS DP with advanced function, double master, AS-i specification 3.0, IP20 protection	Gateway for PROFIBUS DP with standard function, AS-i specification 3.0, IP20 protection	Gateway for Inline Modular, AS-i specification 2.1, IP20 protection	AS-Interface power supply, 2.4 A, automatic ground fault detection, IP20 protection	AS-Interface power supply, 4.8 A, automatic ground fault detection, IP20 protection
2773607	2773597	2736628	2736686	2736699

Passive components and installation material for an AS-Interface

Order No. 1407579

VS-ASI-J-Y-B-FFKDS

- AS-Interface distributor for 2 flat-ribbon conductors
- Spring-cage terminal blocks
- 4-pos.
- IP20 protection

Order No. 1405622

VS-ASI-J-Y-Y-N

- AS-Interface H-distributor for distribution from one to two flat-ribbon conductors
- 4-pos.

Order No. 1407573

VS-ASI-J-Y-N-PUR-1,0-M12FS SCO

- AS-Interface distributor for one flat-ribbon conductor with PUR round cable and molded M12 plug-in connector
- Length: 1.0 m
- M12 socket with SPEEDCON
- 2-pos.

Order No. 1407575

VS-ASI-J-Y-B-PUR-1,0-M12FS SCO

- AS-Interface distributor for two flat-ribbon conductors with PUR round cable and molded M12 plug-in connector
- Length: 1.0 m
- M12 socket with SPEEDCON
- 4-pos.

Order No. 1405619

VS-ASI-J-Y-N-M12FS

- AS-Interface distributor for one flat-ribbon conductor
- M12 socket with SPEEDCON
- 2-pos.

Order No. 1405621

VS-ASI-J-Y-B-M12FS

- AS-Interface distributor for two flat-ribbon conductors
- M12 socket with SPEEDCON
- 4-pos.

Order No. 1433155

VS-ASI-J-Y-N-M12FS-LC

- AS-Interface distributor for one flat-ribbon conductor
- M12 socket
- 2-pos.

Order No. 1433168

VS-ASI-J-Y-N-SWA-LC

- AS-Interface distributor for one flat-ribbon conductor
- Screw connection
- Angled
- 2-pos.

Order No. 1585058

Q 1,5/4IDC/24-24KU-KU-ASI-BK

- Flat-ribbon conductor connector with IDC displacement connection
- For accommodating one or two AS-Interface flat-ribbon conductors
- 4-pos.

Order No. 1437274

Q 1,5/4A50/24-M20KU-ESA-ASI BK

- Panel feed-through with IDC displacement connection for one or two AS-Interface flat-ribbon conductors
- With four 0.5 m long 1.5 mm² single wires on the back
- 4-pos.

Order No. 1584017

HC-M-KV-M20(1ASI)

- Metal screw connection for one AS-Interface flat-ribbon conductor
- Thread type M20

Order No. 1584020

HC-M-KV-M25(1ASI)

- Metal screw connection for one AS-Interface flat-ribbon conductor
- Thread type M25

Order No. 1692336

ASI SACB cable seals

- End sealing for AS-Interface flat-ribbon conductor
- Can be used on both sides

Order No. 1400374

VS-ASI-FC-SEAL-HP

- End sealing for AS-Interface flat-ribbon conductor
- Can be used on both sides
- With union nut
- IP67 protection

Order No. 1404757

VS-ASI-2FC-FIX

- Fastening clip for two AS-Interface flat-ribbon conductors
- Self-adhesive
- 3 mm bore hole for additional fixing
- In plastic

The colored letters and numbers refer to the topology; see pages 16 to 19.

Passive components – flat-ribbon conductors

	EPDM	TPE	PUR	PVC
⑥	Order No. 1432402 **VS-ASI-FC-EPDM-YE 100M** • 2 x 1.5 mm² • 100 m ring • Yellow	Order No. 1404922 **VS-ASI-FC-TPE-UL-YE 100M** • 2 x 1.5 mm² • 100 m ring • Yellow • UL approval	Order No. 1404883 **VS-ASI-FC-PUR-YE 100M** • 2 x 1.5 mm² • 100 m ring • Yellow	Order No. 1404906 **VS-ASI-FC-PVC-UL-YE 100M** • 2 x 1.5 mm² • 100 m ring • Yellow • UL approval
	Order No. 1434646 **VS-ASI-FC-EPDM-YE 1000M** • 2 x 1.5 mm² • 1000 m ring • Yellow	Order No. 1434662 **VS-ASI-FC-TPE-UL-YE 1000M** • 2 x 1.5 mm² • 1000 m ring • Yellow • UL approval	Order No. 1404841 **VS-ASI-FC-PUR-YE/1000** • 2 x 1.5 mm² • 1000 m ring • Yellow	Order No. 1404867 **VS-ASI-FC-PVC-UL-YE/1000** • 2 x 1.5 mm² • 1000 m ring • Yellow • UL approval
⑪	Order No. 1432415 **VS-ASI-FC-EPDM-BK 100M** • 2 x 1.5 mm² • 100 m ring • Black	Order No. 1404935 **VS-ASI-FC-TPE-UL-BK 100M** • 2 x 1.5 mm² • 100 m ring • Black • UL approval	Order No. 1404896 **VS-ASI-FC-PUR-BK 100M** • 2 x 1.5 mm² • 100 m ring • Black	Order No. 1404919 **VS-ASI-FC-PVC-UL-BK 100M** • 2 x 1.5 mm² • 100 m ring • Black • UL approval
	Order No. 1434659 **VS-ASI-FC-EPDM-BK 1000M** • 2 x 1.5 mm² • 1000 m ring • Black	Order No. 1434675 **VS-ASI-FC-TPE-UL-BK 1000M** • 2 x 1.5 mm² • 1000 m ring • Black • UL approval	Order No. 1404854 **VS-ASI-FC-PUR-BK/1000** • 2 x 1.5 mm² • 1000 m ring • Black	Order No. 1404870 **VS-ASI-FC-PVC-UL-BK/1000** • 2 x 1.5 mm² • 1000 m ring • Black • UL approval

Passive components – round cables, 4 x 0.75 mm², M12 plug-in connectors, A-coded

SPEEDCON LOCKING

	Straight M12 plug to free cable end	Straight M12 socket to free cable end	Straight M12 plug to straight M12 socket
0.3 m			Order No. 1555680 **SAC-4P-MS/0,3-186/FS SCO**
0.5 m			Order No. 1555693 **SAC-4P-MS/0,5-186/FS SCO**
1 m			Order No.: 1555703 **SAC-4P-MS/1,0-186/FS SCO**
2 m	Order No. 1555606 **SAC-4P-MS/2,0-186 SCO**	Order No. 1555648 **SAC-4P-2,0-186/FS SCO**	Order No. 1555716 **SAC-4P-MS/2,0-186/FS SCO**
5 m	Order No. 1555619 **SAC-4P-MS/5,0-186 SCO**	Order No. 1555651 **SAC-4P-5,0-186/FS SCO**	Order No. 1555729 **SAC-4P-MS/5,0-186/FS SCO**
10 m	Order No. 1555622 **SAC-4P-MS/10,0-186 SCO**	Order No. 1555664 **SAC-4P-10,0-186/FS SCO**	Order No. 1555732 **SAC-4P-MS/10,0-186/FS SCO**
15 m	Order No. 1555635 **SAC-4P-MS/15,0-186 SCO**	Order No. 1555677 **SAC-4P-15,0-186/FS SCO**	Order No. 1555745 **SAC-4P-MS/15,0-186/FS SCO**

Accessories

Order No. 2773539

FLX ASI M12 FS

• Protection against the accidental release of FLX ASI M12 devices

Order No. 2741480

PB ECO LINK

• RS-232 (V24) PROFIBUS converter
• IP20 protection

Order No. 2741338

ASI CC ADR

• Manual addressing device for AS-Interface modules
• IP20 protection

Order No. 2741341

ASI CC ADR CAB CINCH

• Programming cable with Cinch plug for addressing AS-Interface devices

The colored numbers refer to the topology; see pages 16 to 19.

M8 distributors with metal thread

	Cable length	4 slots		6 slots		8 slots		10 slots	
		3-pos.	4-pos.	3-pos.	4-pos.	3-pos.	4-pos.	3-pos.	4-pos.
With master cable									
	5 m	1516014	–	1516030	–	1516056	1516111	1516072	–
	10 m	1516027	–	1516043	–	1516069	1516124	1516085	–
	Variable	1516137	–	1516140	–	1516153	1516179	1516166	–
With M12 plug-in connection									
	–	1516234	–	1516247	–	1434840	–	1434853	–
With M16 plug-in connection									
	–	1516182	–	1516195	–	1516205	–	1516218	–
With spring connection									
	–	1503386	–	1503399	–	1511747	1503454	1503409	–
With plug-in screw connection									
	–	1503412	–	1503425	–	1511750	1503467	1503438	–
Header for plug-in screw connection									
	–	1516250	–	1516263	–	1516276	–	1516289	–
Connector hood with master cable									
	5 m	1516292	–	1516315	–	1516331	–	1516357	–
	10 m	1516302	–	1516328	–	1516344	–	1516360	–
	Variable	1516373	–	1516386	–	1516399	–	1516409	–

M12 distributors with plastic thread

SPEEDCON LOCKING

Signal type	Cable length	4 slots		6 slots		8 slots	
		4-pos.	5-pos.	4-pos.	5-pos.	4-pos.	5-pos.
With master cable							
Universal	5 m	1452398	1452424	1452453	1452482	1452518	1452547
Universal	10 m	1452408	1452437	1452466	1452495	1452521	1452550
PNP	5 m	1452576	1452602	1452631	1452660	1452699	1452725
PNP	10 m	1452589	1452615	1452644	1452673	1452709	1452738
PNP	Variable	1401376	1401419	1401379	1401380	1401382	1401383
With spring connection							
Universal	–	1452929	1452932	1452945	1452958	1452961	1452974
PNP	–	1452987	1452990	1453009	1453012	1453025	1453038
With plug-in screw connection							
Universal	–	1452741	1452754	1452767	1452770	1452783	1452796
PNP	–	1452806	1452819	1452822	1452835	1452848	1452851
Header for plug-in screw connection							
PNP	–	1452864	1452877	1452880	1452893	1452903	1452916
Connector hood with master cable							
PNP	5 m	1453054	1453083	1453119	1453148	1453177	1453203
PNP	10 m	1453067	1453096	1453122	1453151	1453180	1453216
PNP	Variable	1401391	1401393	1401411	1401413	1401416	1401418

Signal type "plug and play" includes an LED status indicator

Ordering example for an M8 distributor with a metal thread

For a distributor with 4 single-occupancy slots and a master cable length of 34.5 m, the ordering data is as follows:

Order No.	Length
1516137 /	34.5 m
	Increment: 0.5 m
	Minimum length: 0.5 m
	Maximum length: 50 m

Ordering example for an M12 distributor with a plastic thread

For a distributor with 4 single-occupancy slots and a master cable length of 34.5 m, the ordering data is as follows:

Order No.	Length
1401376 /	34.5 m
	Increment: 0.5 m
	Minimum length: 0.5 m
	Maximum length: 50 m
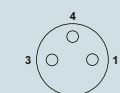
Pin assignment, M8 socket, 3-pos.

Pin assignment, M8 socket, 4-pos.

Pin assignment, M12 plug-in connection, 8-pos.

Pin assignment, M12 plug-in connection, 12-pos.

Pin assignment, M16 plug-in connection, 14-pos.
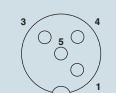
Pin assignment, M12-slot socket, 4-pos.
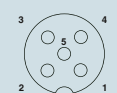
Pin assignment, M12-slot socket, 5-pos.

M12 distributors with metal thread

SPEEDCON LOCKING

Signal type	Cable length	4 slots		6 slots		8 slots	
		4-pos.	5-pos.	4-pos.	5-pos.	4-pos.	5-pos.
With master cable							
Universal	5 m	1516962	1516988	1517000	1517026	1517042	1517068
Universal	10 m	1516975	1516991	1517013	1517039	1517055	1517071
PNP	5 m	1517084	1517107	1517123	1517149	1517165	1517181
PNP	10 m	1517097	1517110	1517136	1517152	1517178	1517194
PNP	Variable	1516904	1516917	1516920	1516933	1516946	1516959
PNP	Variable	1537019	1537048	1537022	1537051	1537035	1537064
With halogen-free master cable							
Universal	5 m	–	1517204	–	1517220	–	1517246
Universal	10 m	–	1517217	–	1517233	–	1517259
PNP	–	–	1517262	–	1517288	–	1517301
PNP	5 m	–	1517275	–	1517291	–	1517314
With plug-in screw connection							
Universal	–	1516849	1516852	1516865	1516878	1516881	1516894
PNP	–	1516784	1516797	1516807	1516810	1516823	1516836
PNP	–	1537077	1537103	1537080	1537116	1537093	1537129
Header for plug-in screw connection							
PNP	–	1516726	1516739	1516742	1516755	1516768	1516771
Connector hood with master cable							
PNP	5 m	1516353	1516593	1516551	1516616	1516577	1516632
PNP	10 m	1516548	1516603	1516564	1516629	1516580	1516645
PNP	Variable	1516658	1516661	1516674	1516687	1516690	1516700

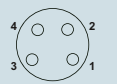Signal type "plug and play" includes an LED status indicator

Ordering example for an M12 distributor with a metal thread

For a distributor with 4 single-occupancy slots and a master cable length of 34.5 m, the ordering data is as follows:
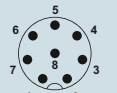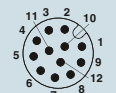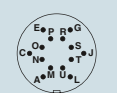
Order No.	Length
1516904 /	34.5 m
	Increment: 0.5 m
	Minimum length: 0.5 m
	Maximum length: 50 m
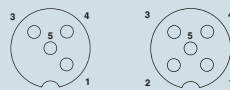
Pin assignment, M12 socket, 4-pos.   Pin assignment, M12 socket, 5-pos.

QUICKON distributors

Signal type	Cable length	4 slots		6 slots		8 slots	
		4-pos.	5-pos.	4-pos.	5-pos.	4-pos.	5-pos.
I/O connection cross section 0.14 mm² … 0.34 mm², with master cable							
Universal	Variable	1548642	1548671	1548655	1548684	1548668	1548697
PNP	5 m	1548448	1548532	1548464	1548558	1548480	1548574
PNP	10 m	1548451	1548545	1548477	1548561	1548493	1548587
PNP	Variable	1548503	1548590	1548516	1548600	1548529	1548613
I/O connection cross section 0.14 mm² … 0.34 mm², with plug-in screw connection							
Universal	–	1548354	1548419	1548367	1548422	1548370	1548435
PNP	–	1548325	1548383	1548338	1548396	1548341	1548406
I/O connection cross section 0.34 mm² … 0.75 mm², with master cable							
Universal	5 m	1683662	–	1683688	–	1683701	–
Universal	10 m	1683675	–	1683691	–	1683714	–
PNP	5 m	1695223	–	1695252	–	1695281	–
PNP	10 m	1695236	–	1695265	–	1695294	–
PNP	Variable	1695249	–	1695278	–	1695304	–
I/O connection cross section 0.34 mm² … 0.75 mm², with spring connection							
Universal	–	1683633	–	1683646	–	1683659	–
PNP	–	1662939	–	1662942	–	1662955	–
PNP	Variable	1680856	–	1680869	–	1680872	–

Signal type "plug and play" includes an LED status indicator

Ordering example for a distributor with QUICKON connection, 0.14 mm² … 0.34 mm²
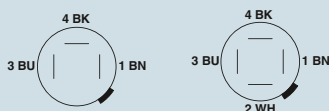
For a distributor with 4 single-occupancy QUICKON slots and a master cable length of 34.5 m, the ordering data is as follows:

Order No.	Length
1548503 /	34.5 m
	Increment: 0.5 m
	Minimum length: 0.5 m
	Maximum length: 50 m

Pin assignment, QUICKON connection, 3-pos.

Pin assignment, QUICKON connection, 4-pos.

Ordering example for a distributor with QUICKON connection, 0.34 mm² … 0.75 mm²

For a distributor with 4 single-occupancy QUICKON slots and a master cable length of 34.5 m, the ordering data is as follows:

Order No.	Length
1695249 /	34.5 m
	Increment: 0.5 m
	Minimum length: 0.5 m
	Maximum length: 50 m

Pin assignment, QUICKON connection, 4-pos.

M8 and M12 SPEEDCON, SAC cable, 3-pos.

	Free end		M8 plug				M12 plug, SPEEDCON			
With master cable			1.5 m	1681664	1.5 m	1681693	1.5 m	1518643	1.5 m	1518685
			3 m	1681677	3 m	1681703	3 m	1518656	3 m	1518698
			5 m	1681680	5 m	1681716	5 m	1518669	5 m	1518708
			10 m	1693584	10 m	1694114	10 m	1518672	10 m	1518711
			Variable	1697548	Variable	1697551	Variable	1523515	Variable	1523531
M8 socket, straight	1.5 m	1669712	0.3 m	1681907	0.3 m	1682029				
	3 m	1669725	0.6 m	1681910	0.6 m	1682032				
	5 m	1669628	1.5 m	1681923	1.5 m	1682045				
	10 m	1694101	3 m	1681936	3 m	1682058				
	Variable	1697580	Variable	1697632	Variable	1697661	Variable	1535736	Variable	1541856
M8 socket, angled	1.5 m	1669738	0.3 m	1681949	0.3 m	1682061				
	3 m	1669741	0.6 m	1681952	0.6 m	1682074				
	5 m	1669631	1.5 m	1681965	1.5 m	1682087				
	10 m	1694169	3 m	1681978	3 m	1682090				
	Variable	1697603	Variable	1697645	Variable	1697674	Variable	1540763	Variable	1541869
M8 socket, angled, with 2 LEDs	1.5 m	1671069	0.3 m	1681981	0.3 m	1682100				
	3 m	1671072	0.6 m	1681994	0.6 m	1682113				
	5 m	1671085	1.5 m	1682003	1.5 m	1682126				
	10 m	1683594	3 m	1682016	3 m	1682139				
	Variable	1697616	Variable	1697658	Variable	1697687	Variable	1535710	Variable	1541872
M12 socket, SPEEDCON, straight							0.3 m	1518724	0.3 m	1518766
							0.6 m	158737	0.6 m	1518779
							1.5 m	1518740	1.5 m	1518782
							3 m	1518753	3 m	1518795
	Variable	1535778	Variable	1541911	Variable	1541940	Variable	1523544	Variable	1523557
M12 socket, SPEEDCON, straight, pin 2+4 bridged	Variable	1542046					Variable	1542091	Variable	1542130

M8 and M12 SPEEDCON, SAC cable, 3-pos.

	Free end	M8 plug	M8 plug	M12 plug, SPEEDCON	M12 plug, SPEEDCON

M12 socket, SPEEDCON, straight, with 2 LEDs

	Free end	M8 plug	M8 plug	M12 plug, SPEEDCON	M12 plug, SPEEDCON
	Variable 1542059	Variable 1541843	Variable 1553501	Variable 1542017	Variable 1542033

M12 socket, SPEEDCON, angled

	Free end	M8 plug	M8 plug	M12 plug, SPEEDCON	M12 plug, SPEEDCON
	Variable 1536492	Variable 1541924	Variable 1541953	Variable 1542101	Variable 1542020

M12 socket, SPEEDCON, angled, pin 2+4 bridged
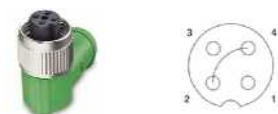
	Free end	M8 plug	M8 plug	M12 plug, SPEEDCON	M12 plug, SPEEDCON
	Variable 1542075			Variable 1542114	Variable 1542143

M12 socket, SPEEDCON, angled, with 2 LEDs

	Free end	M8 plug	M8 plug	M12 plug, SPEEDCON	M12 plug, SPEEDCON
	1.5 m 1407774				
	3 m 1407775				
	5 m 1407776				
	10 m 1407777				
	Variable 1535752	Variable 1541937	Variable 1541966	Variable 1538225	

M12 socket, SPEEDCON, angled, with 2 LEDs, pin 2+4 bridged

	Free end	M8 plug	M8 plug	M12 plug, SPEEDCON	M12 plug, SPEEDCON
	Variable 1542088			Variable 1542127	Variable 1542156

Ordering example for M8 and M12 SPEEDCON, SAC cable, 3-pos.

For a sensor/actuator cable, PUR, halogen-free black, 4.5 m long, with a straight, 3-pos. M12 plug and a straight M12 socket, the ordering data is as follows:

Order No.	Cable type	Maximum length: 40 m
1523544 /	PUR /	4.5 m
		Increments: 0.2 … 3 m = 0.1 m > 3 m = 0.5 m

M8 and M12 SPEEDCON, SAC cable, 4-pos.

|	Free end	M8 plug (straight)	M8 plug (angled)	M12 plug, SPEEDCON (straight)	M12 plug, SPEEDCON (angled)
Free end		1.5 m 1681787 3 m 1681790 5 m 1681800 10 m 1694143 Variable 1697755	1.5 m 1681813 3 m 1681826 5 m 1681839 10 m 1694156 Variable 1697768	1.5 m 1518805 3 m 1518818 5 m 1518821 10 m 1518834 Variable 1523560	1.5 m 1518847 3 m 1518850 5 m 1518863 10 m 1518876 Variable 1523573
M8 socket, straight	1.5 m 1681842 3 m 1681855 5 m 1681868 10 m 1683484 Variable 1697771	0.3 m 1682142 0.6 m 1682155 1.5 m 1682168 3 m 1682171 Variable 1697797	0.3 m 1682223 0.6 m 1682236 1.5 m 1682249 3 m 1682252 Variable 1697810	Variable 1535749	Variable 1542253
M8 socket, angled	1.5 m 1681871 3 m 1681884 5 m 1681897 10 m 1694172 Variable 1697784	0.3 m 1682184 0.6 m 1682197 1.5 m 1682207 3 m 1682210 Variable 1697807	0.3 m 1682265 0.6 m 1682278 1.5 m 1682281 3 m 1682294 Variable 1697823	Variable 1542279	
M8 socket, angled, with 2 LEDs	Variable 1617673			Variable 1535723	
M12 socket, SPEEDCON, straight	1.5 m 1536285 3 m 1536298 5 m 1536308 10 m 1536311 Variable 1535781	Variable 1542240		0.3 m 1518889 0.6 m 1518892 1.5 m 1518902 3 m 1518915 Variable 1523586	0.3 m 1518928 0.6 m 1518931 1.5 m 1518944 3 m 1518957 Variable 1523599
M12 socket, SPEEDCON, straight, with 2 LEDs	Variable 1542321				
M12 socket, SPEEDCON, angled	1.5 m 1536405 3 m 1536418 5 m 1536421 10 m 1536434 Variable 1537734	Variable 1542266	Variable 1542282	Variable 1537747	Variable 1537828
M12 socket, SPEEDCON, angled, with 3 LEDs	1.5 m 1407778 3 m 1407779 5 m 1407790 10 m 1407781 Variable 1535765			Variable 1535707	Variable 1542334

M12 SPEEDCON, SAC cable, 5-pos.

	Free end	M12 plug, SPEEDCON	

Free end
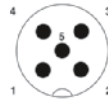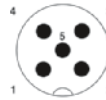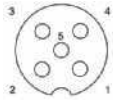
	Free end	M12 plug, straight	M12 plug, angled
		1.5 m 1669767	1.5 m 1669796
		3 m 1669770	3 m 1669806
		5 m 1669783	5 m 1669819
		10 m 1683361	10 m 1694460
		Variable 1697098	Variable 1697108

M12 socket, SPEEDCON, straight
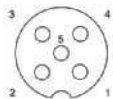
	Free end	M12 plug, straight	M12 plug, angled
	1.5 m 1669822	0.3 m 1681583	
	3 m 1669835	0.6 m 1681596	
	5 m 1669848	1.5 m 1681606	
	10 m 1683374	3 m 1681619	
	Variable 1697111	Variable 1697140	Variable 1508734

M12 socket, SPEEDCON, angled
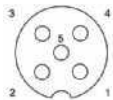
	Free end	M12 plug, straight	M12 plug, angled
	1.5 m 1669851	0.3 m 1681622	
	3 m 1669864	0.6 m 1681635	
	5 m 1669877	1.5 m 1681648	
	10 m 1694541	3 m 1681651	
	Variable 1697124	Variable 1697153	Variable 1529506

M12 socket, SPEEDCON, angled, with 3 LEDs
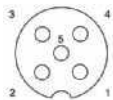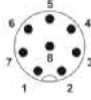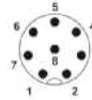
	Free end	M12 plug, straight	M12 plug, angled
	1.5 m 1669880	0.3 m 1694635	
	3 m 1669893	0.6 m 1694648	
	5 m 1669903	1.5 m 1694651	
	10 m 1694431		
	Variable 1697137	Variable 1697166	Variable 1552159

For an ordering example, see page 43

Minimum order amount = 25 pcs.

## M12 SPEEDCON, SAC cable, 8-pos.

	Free end	M12 plug, SPEEDCON	
SPEEDCON LOCKING			
Free end			
		Variable	1523641	Variable	1523654
M12 socket, SPEEDCON, straight	1.5 m	1407791		
	3 m	1401793		
	5 m	1401691		
	10 m	1407792		
	Variable	1523667	Variable	1523683	Variable	1552191
M12 socket, SPEEDCON, angled			
	Variable	1523670	Variable	1523696	Variable	1552201
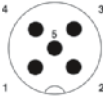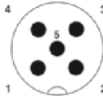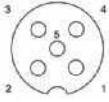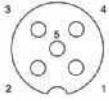
For an ordering example, see page 43

Minimum order amount = 25 pcs.

M12 distributors, shielded

	Signal type	Cable length	4 slots		6 slots		8 slots	
			4-pos.	5-pos.	4-pos.	5-pos.	4-pos.	5-pos.
With master cable								
	Universal	5 m		1695786		1695809		1695825
	Universal	10 m		1695799		1695812		1695838
With M23 plug-in connection								
	Universal	–		1695757		1695760		1695773

M12 SPEEDCON, SAC cable, 5-pos., shielded

	Free end		M12 plug, SPEEDCON, 360° shielded	
Free end				
			1.5 m	1407804
			3 m	1407805
			5 m	1407806
			10 m	1407807
			Variable	1523829	Variable	1523832
M12 socket, SPEEDCON, straight, 360° shielded				
	1.5 m	1407787		
	3 m	1407788		
	5 m	1407789		
	10 m	1407790		
	Variable	1536544	Variable	1523861	Variable	1542347
M12 socket, SPEEDCON, angled, 360° shielded				
	1.5 m	1407808		
	3 m	1407809		
	5 m	1407810		
	10 m	1407811		
	Variable	1536573	Variable	1523874	Variable	1542350

M8 plug-in connectors that can be assembled

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

M12 plug-in connectors that can be assembled

Coding	Design	4-pos.		5-pos.		8-pos.	
		Plug	Socket	Plug	Socket	Plug	Socket
Screw connection, SPEEDCON knurl, Pg7 screw connection, unshielded							
A - Standard	Straight	1542952	1543029	1542965	1543032		
A - Standard	Angled	1542981	1543058	1542994	1543061		
Screw connection, SPEEDCON knurl, Pg9 screw connection, unshielded							
A - Standard	Straight			1542978	1543045		
A - Standard	Angled			1543003	1543414		
Screw connection, metal knurl, Pg7 screw connection, unshielded							
A - Standard	Straight	1662528	1681127	1663116	1662968		
A - Standard	Angled	1681101	1681143	1663129	1662984		
Screw connection, metal knurl, Pg9 screw connection, unshielded							
A - Standard	Straight			1681460	1681486	1513334	1513347
A - Standard	Angled			1681473	1681499		
Screw connection, metal knurl, Pg7 SKINTOP screw connection, unshielded							
A - Standard	Straight	1556870	1430381	1456466	1559000		
Screw connection, metal knurl, Pg9 SKINTOP screw connection, unshielded							
A - Standard	Straight			1556825	1556838		
A - Standard	Angled			1561742	1556812		
Screw connection, metal knurl, Pg7 screw connection, shielded							
A - Standard	Straight	1693830	1694295	1693416	1694305		
A - Standard	Angled	1694279		1693429			
Screw connection, metal knurl, Pg9 screw connection, shielded							
A - Standard	Straight	1501540	1515170	1694266	1694318	1511857	1511860
A - Standard	Angled			1694282	1430433		

M12 plug-in connectors that can be assembled

	Coding	Design	4-pos.		5-pos.		8-pos.	
			Plug	Socket	Plug	Socket	Plug	Socket
M12 power plug-in connector with screw connection, Pg11 screw connection, unshielded								
	T - Standard	Straight	1404643	1404644				
	T - Standard	Angled	1408988	1408989				
Spring connection, unshielded								
	A - Standard	Straight	1432635	1432619	1432567	1432583		
	A - Standard	Angled	1432606	1432622	1432570	1432596		
Spring connection, shielded								
	A - Standard	Straight	1432729	1432745	1432648	1432664		
	A - Standard	Angled	1432732	1432758	1432651	1432677		
	B - Inverse	Straight			1432680	1432703		
	B - Inverse	Angled			1432693	1432716		
Spring connection, shielded, for fieldbuses								
	INTERBUS	Straight			1432800	1432826		
		Angled			1432813	1432839		
	PROFIBUS	Straight			1432842	1432868		
		Angled			1432855	1432871		
	DeviceNet	Straight			1432761	1432787		
		Angled			1432774	1432790		
IDC connection, 0.14 mm² - 0.34 mm², unshielded								
	A - Standard	Plastic knurl	1641714	1641701				
	A - Standard	SPEEDCON knurl	1521575	1521588				
	A - Standard	Metal knurl	1641691	1641688				
IDC connection, 0.34 mm² - 0.75 mm², unshielded								
	A - Standard	Plastic knurl	1641769	1641756				
	A - Standard	SPEEDCON knurl	1521591	1521601				
	A - Standard	Metal knurl	1641785	1641772				
IDC connection, shielded, for networks								
	Ethernet	Straight	1543223	1553611				
		Angled	1553624	1553637				
	PROFINET	Straight	1554513	1554526				
		Angled	1554539	1554542				

Valve connector cables

	Cable length	Protective circuit					Pressure switch
		Zener diode	Varistor, 24 V	Varistor, 230 V	Freewheeling diode	Unwired	
Design A, to free cable end							
	1.5 m	1434989	1443103	1402985	1400589	1402983	
	3 m	1434992	1443116	1400694	1400588	1439544	
	5 m	1435001	1443129	1400648	1400798	1402984	
	10 m	1435014	1443132	1402986	1400799	1400732	
	Variable	1435027	1400876			1400897	
Design A, to M12 SPEEDCON plug, straight							
	0.3 m	1434882					
	0.6 m	1434895					
	1.5 m	1434905					
	3 m	1434918					
	Variable	1434921	1400874			1400895	
Design A, to M12 SPEEDCON plug, angled							
	0.3 m	1434934					
	0.6 m	1434947					
	1.5 m	1434950					
	3 m	1434963					
	Variable	1434976	1400875			1400896	
Design AD, to free cable end, 5-pos.							
	1.5 m						1435085
	3 m						1435098
	5 m						1435108
	10 m						1435111
	Variable						1435124
Design AD, to M12 SPEEDCON plug, straight, 5-pos.							
	0.3 m						1435030
	0.6 m						1435043
	1.5 m						1435056
	3 m						1435069
	Variable						1435072
Design AD, to free cable end, 4-pos.							
	3 m						1438956
	Variable						1400899
Design AD, to M12 SPEEDCON plug, straight, 4-pos.							
	Variable						1400898

Valve connector cables

Cable length	Protective circuit					
	Zener diode		Varistor, 24 V		Unwired	
	B	BI	B	BI	B	BI
Design B/BI, to free cable end						
1.5 m	1435386	1435234	1443145	1443187		
3 m	1435399	1435247	1443158	1443190		
5 m	1435409	1435250	1443161	1443200		1439065
10 m	1435412	1435263	1443174	1443213		1438862
Variable	1435425	1435276	1400882	1400879	1400909	1400902
Design B/BI, to M12 SPEEDCON plug, straight						
0.3 m	1435289	1435137				
0.6 m	1435292	1435140				
1.5 m	1435302	1435153				
3 m	1435315	1435166				
Variable	1435328	1435179	1400880	1400877	1400903	1400900
Design B/BI, to M12 SPEEDCON plug, angled						
0.3 m	1435331	1435182				
0.6 m	1435344	1435195				
1.5 m	1435357	1435205				
3 m	1435360	1435218				
Variable	1435373	1435221	1400881	1400878	1400905	1400901

Cable length	Zener diode		Varistor, 24 V		Unwired	
	C	CI	C	CI	C	CI
Design C/CI, to free cable end						
1.5 m	1435535	1435687	1443226	1443268		
3 m	1435548	1435690	1443239	1443271		
5 m	1435551	1435700	1443242	1443284	1400814	
10 m	1435564	1435713	1443255	1443297	1400641	
Variable	1435726	1435577	1400894	1400891	1400921	1400918
Design C/CI, to M12 SPEEDCON plug, straight						
0.3 m	1435438	1435580				
0.6 m	1435441	1435593				
1.5 m	1435454	1435603				
3 m	1435467	1435616				
Variable	1435629	1435470	1400892	1400889	1400919	1400916
Design C/CI, to M12 SPEEDCON plug, angled						
0.3 m	1435483	1435632				
0.6 m	1435496	1435645				
1.5 m	1435506	1435658				
3 m	1435519	1435661				
Variable	1435674	1435522	1400893	1400890	1400920	1400917

Valve plug-in connectors

			Protective circuit				
			Zener diode	Varistor	Varistor and rectifier	Unwired	Pressure switch
Design A							
	Number of positions	3-pos.				1452123	
		4-pos.				1452136	
		5-pos.					1457908
	Rated voltage	24 V		1452149	1452178		
		110 V		1452152	1452181		
		230 V		1452165	1452194		
	Cable glands	Pg9	1671137				
		M16	1544714				
Design B							
	Number of positions	3-pos.	1671153				
	Rated voltage	24 V		1452204			
		110 V		1452217			
		230 V		1452220			
Design BI							
	Number of positions	3-pos.	1671140				
	Rated voltage	24 V		1452233			
		110 V		1452246			
		230 V		1452259			
Design C							
	Rated voltage	24 V		1452262			
		110 V		1452275			
		230 V		1452288			
Design CI							
	Rated voltage	24 V		1452291			
		110 V		1452301			
		230 V		1452314			

Valve plug adapters with M12 plug

	A	B	BI	A-DESINA
M12 plug, vertical				
	SAC-3P-MS/A-1L-Z SCO 1458525	SAC-3P-MS/B-1L-Z SCO 1458541	SAC-3P-MS/BI-1L-Z SCO 1458567	SAC-4P-MS/A-1L-Z D SCO 1458583
M12 plug, horizontal				
	SAC-3P-MR/A-1L-Z SCO 1458538	SAC-3P-MR/B-1L-Z SCO 1458554	SAC-3P-MR/BI-1L-Z SCO 1458570	

M8/M12 adapters

	3-pos.	4-pos.
M8 plug to M12 socket		
	1519749	1519736
M12 plug to M8 socket		
	1519752	1519765
M12 plug to snap-in socket		
	1519781	1519778

M8/M12 Y-distributor, M12 T-distributor

		Center distance	Without LED	With 3 LEDs	Not bridged	Pins 2 and 4 bridged
3-pos.						
	M8/M12 Y-distributor					
	M8 plug to 2 x M8 socket	12 mm	1696183			
	M12 plug to 2 x M8 socket	12 mm	1683471			
	M12 Y-distributor					
	M12 plug to 2 x M8 socket	12 mm	1523984			
	M12 Y-distributor					
	M12 plug to 2 x M12 socket	18 mm		1403627		
3+PE-pos.						
	M12 Y-distributor					
	M12 plug to 2 x M12 socket	18 mm			1683455	1683413
	M12 plug to 2 x M12 socket	21 mm			1511789	1514016
	M12 SPEEDCON Y-distributor					
	M12 plug to 2 x M12 socket	18 mm			1523971	1523968
	T-distributor					
	M12 plug to 2 x M12 socket ⑭					1519723

M8/M12 Y-distributor, M12 T-distributor, parallel wired

		Center distance	3-pos.	5-pos.	8-pos.
Unshielded					
	M8/M12 Y-distributor				
	M8 plug to 2 x M8 socket	12 mm	1696222		
	M12 plug to 2 x M8 socket	12 mm	1683549		
	M12 Y-distributor				
	M12 plug to 2 x M12 socket	18 mm		1683468	
	M12 plug to 2 x M12 socket	21 mm		1514029	
	M12 SPEEDCON Y-distributor				
	M12 plug to 2 x M12 socket	18 mm		1546068	
	M12 plug to 2 x M12 socket	21 mm			1454972
	T-distributor				
	M12 plug to 2 x M12 socket			1541186	
Shielded					
	M12 SPEEDCON Y-distributor				
	M12 plug to 2 x M12 socket	21 mm		1419920	1454969
	M12 plug to M12 plug/M12 socket	21 mm		1438079	
	M12 socket to 2 x M12 plug	21 mm		1419946	
	M12 socket to M12 plug/M12 socket	21 mm		1419933	

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