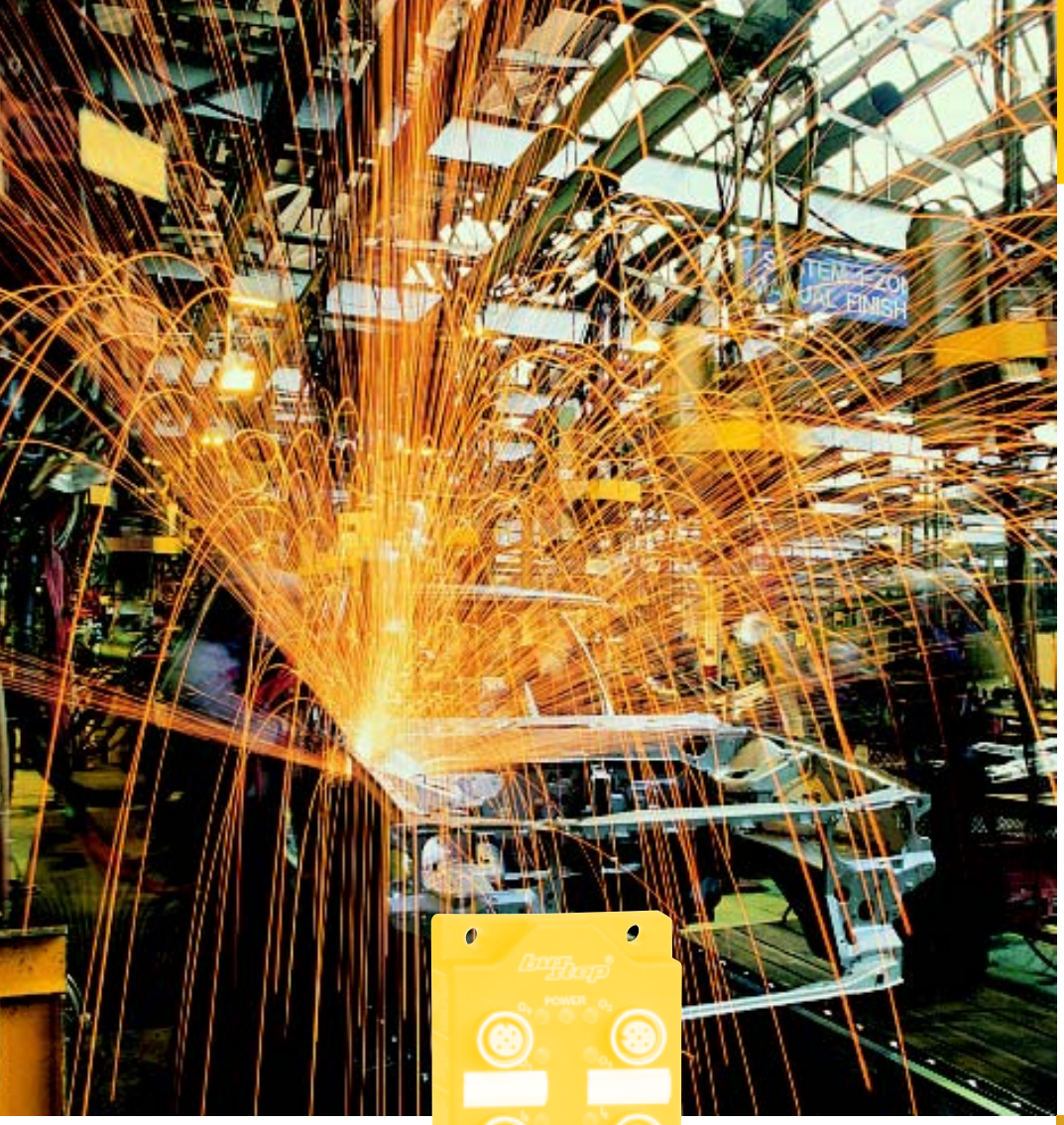
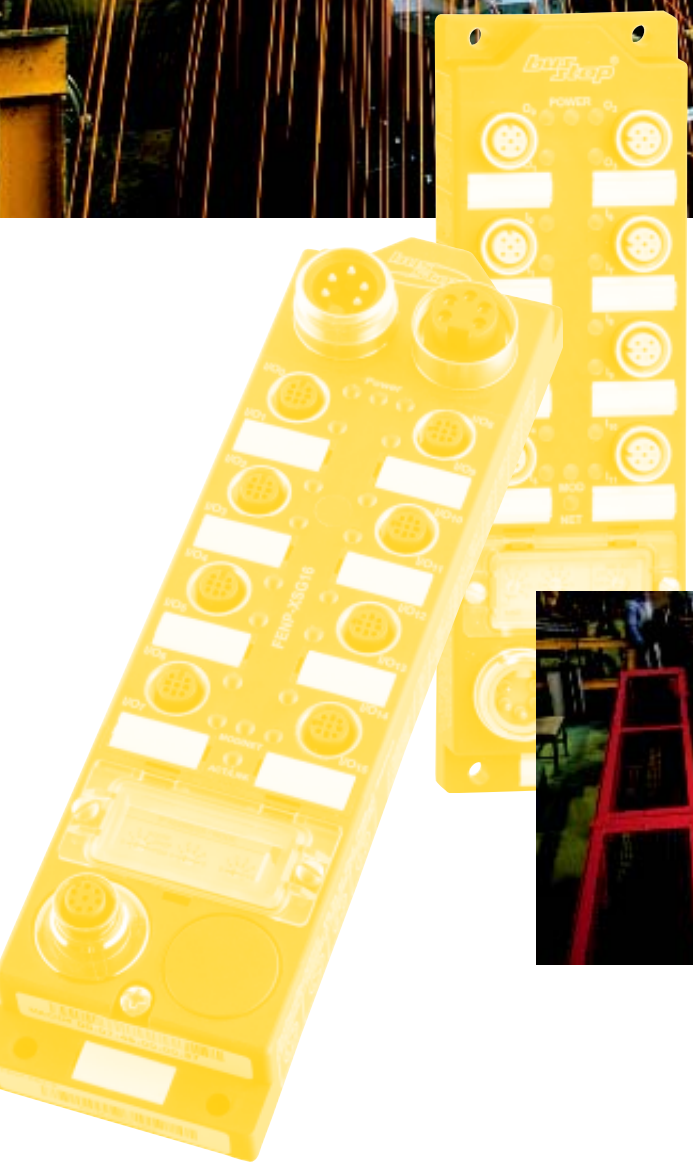
TURCK

Industrial
Automation

COMPACT FIELDBUS STATIONS IN IP67



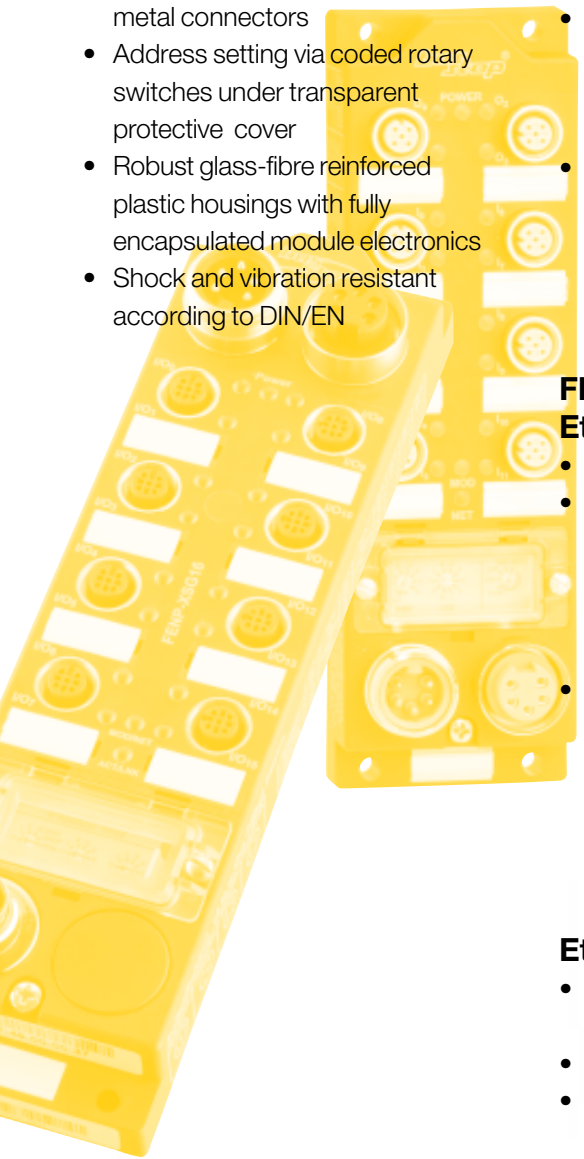


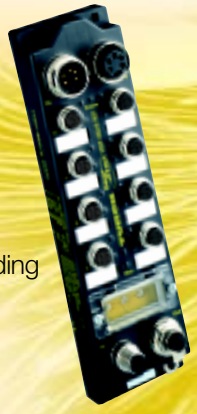
F774/01

Fieldbus Components for the Harsh Industrial Environment

The compact fieldbus stations from TURCK are ideal for use under demanding electrical and mechanical conditions in harsh industrial environments and stand out due to their common properties, which is why they offer decisive advantages. No matter whether for PROFIBUS-DP, DeviceNet™ or Ethernet – all compact fieldbus stations are designed according to the same concept and feature the following characteristics:

- Standardised connection technology with metal connectors
- Address setting via coded rotary switches under transparent protective cover
- Robust glass-fibre reinforced plastic housings with fully encapsulated module electronics
- Shock and vibration resistant according to DIN/EN





FXDP – configurable PROFIBUS-DP modules

- Channel-specific diagnostics according to PROFIBUS-DP standard
- Parameterisable I/O range
- Up to 16 channels

FLDP – PROFIBUS-DP modules

- Common short-circuit diagnostics
- Up to 32 channels

REP-DP-0002 – PROFIBUS-DP repeater

- Segmentation and expansion of PROFIBUS-DP networks
- Automatic disconnection of faulty segments

FENP– Ethernet modules

- Common diagnostics
- Website for display of status and I/O data with standard web browser
- Up to 16 channels

Ethernet switch

- Segmentation of network traffic
- 5 or 9 ports
- 10/100 Mbps half/full duplex operation

Hans Turck GmbH & Co.KG • D–45466 Mülheim/Ruhr • Phone 0208/4952-0 • Fax 0208/4952-264 • E-Mail: turckmh@mail.turck-globe.de • www.turck.com

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FSDP – PROFIsafe modules

- Safety-related fieldbus stations
- Up to 16 channels
- SIL 2/SIL 3 according to IEC 61508

FDNP – DeviceNet™ modules

- Individual or common diagnostics
- Connection of actuator supply
- Up to 16 channels

Cordsets – Premoulded cables for bus, power and I/Os

- One solution for all application conditions
- From simple PVC through PUR up to highly flexible cables
- Straight or angled connectors

Accessories

- T- and Y-pieces
- Terminating resistors
- Flange connectors
- Feed-through receptacles
- Passive junction boxes

REP-DN – CAN (DeviceNet™) repeater

- Segmentation and expansion of CAN or DeviceNet™ networks

FDNL – DeviceNet™ modules

- Individual or common diagnostics
- Up to 16 channels
- Power supply via DeviceNet™

TURCK

Industrial Automation

Bitte senden Sie mir Unterlagen:

Sensortechnik
- ❑ Induktive Sensoren
- ❑ *uprox*® induktive Sensoren
- ❑ Induktive Sensoren für Schwenkantriebe
- ❑ Magnetfeldsensoren
- ❑ Opto-Sensoren
- ❑ Geräte für den Personenschutz
- ❑ Kapazitive Sensoren
- ❑ Ultraschallsensoren
- ❑ Strömungssensoren
- ❑ Drucksensoren
- ❑ Füllstandssensoren *levelprox*®
- ❑ Temperatursensoren
- ❑ Identifikationssysteme
- ❑ Linearwegsensoren
- ❑ Drehwegsensoren
- ❑ Steckverbinder
- ❑ CD-ROM Sensortechnik

Interfacetechnik
- ❑ Interfacetechnik im Aufbaugehäuse für Hutschiene (DIN 50022), Platten- oder Bodenmontage
- ❑ Interfacetechnik auf 19"-Karte für Baugruppenträger (DIN 41494)
- ❑ CD-ROM Interfacetechnik
- ❑ Miniaturrelais, Industrierelais, Zeitwürfel, Sockel
- ❑ Zeit- und Überwachungsrelais
- ❑ Ex-Schutz – Grundlagen für die Praxis (Übersichtsposter)

Feldbustechnik
- ❑ Kompakte Feldbuskomponenten PROFIBUS-DP/DeviceNet™/ Ethernet
- ❑ *piconet*® – modulares Feldbus-I/O-System in IP67
- ❑ BL67 – modulares Feldbus-I/O-System in IP67
- ❑ BL20 – modulares Feldbus-I/O-System in IP20
- ❑ Remote-I/O-System *excom*®
- ❑ Segmentkoppler
- ❑ FOUNDATION™ fieldbus Feldbuskomponenten
- ❑ PROFIBUS-PA Feldbuskomponenten
- ❑ Multibarriere
- ❑ Feldbussystem *sensoplex*®*2/2 Ex*

Please send me more information:

Sensors
- ❑ Inductive sensors
- ❑ *uprox*® inductive sensors
- ❑ Inductive sensors for rotary actuators
- ❑ Magnetic-field sensors
- ❑ Photoelectric sensors
- ❑ Machine safety equipment
- ❑ Capacitive sensors
- ❑ Ultrasonic sensors
- ❑ Flow sensors
- ❑ Pressure sensors
- ❑ Level sensors *levelprox*®
- ❑ Temperature sensors
- ❑ Identification systems
- ❑ Linear position sensors
- ❑ Rotary position sensors
- ❑ Connectors
- ❑ CD-ROM Sensors

Interface technology
- ❑ Devices in modular housings for top-hat rail (DIN 50022) or panel mounting
- ❑ Devices on 19" card for DIN-rail mounting (DIN 41494)
- ❑ CD-ROM Interface technology
- ❑ Miniature relays, industrial relays, time cubes, sockets
- ❑ Programmable relays and timers
- ❑ Explosion protection – basics for practical application (overview poster)

Fieldbus technology
- ❑ Compact fieldbus components PROFIBUS-DP/DeviceNet™/ Ethernet
- ❑ *piconet*® – modular fieldbus I/O-system in IP67
- ❑ BL67 – modular fieldbus I/O-system in IP67
- ❑ BL20 – modular fieldbus I/O-system in IP20
- ❑ Remote I/O system *excom*®
- ❑ Segment coupler
- ❑ FOUNDATION™ fieldbus fieldbus components
- ❑ PROFIBUS-PA fieldbus components
- ❑ Multibarrier
- ❑ Fieldbus system *sensoplex*®*2/2 Ex*

FAX-ANTWORT/FAX REPLY

Absender/Sender:

Name:

Firma/Company:

Abt./Position:

Adresse/Address:

Tel./Phone: Fax:

E-Mail:

D300774 0704

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TURCK

Industrial Automation

Compact fieldbus stations in IP67

System description

Within the PROFIBUS protocol family, PROFIBUS-DP is the speed-optimised protocol for communication between automation devices and the field periphery. PROFIBUS-DP is designed to replace cost-intensive, parallel signal transmission via digital and analogue sensors and actuators. PROFIBUS-DP is based on DIN 19245, part 1 and part 4. During the course of European fieldbus standardisation, PROFIBUS-DP has been integrated into the European field bus standard EN 50170.

PROFIBUS-DP is a master/slave system. During operation, the master constantly scans the connected slave stations.

Several masters may be connected within a single network; in this case they pass on their transmission permission (Token Passing).

PROFIBUS-DP uses a bit transmission layer (Physical Layer) based on the industrially proven RS485 standard. The system uses a shielded twisted 2-wire cable that is extremely resistant to electrical interference.

PROFIBUS-DP is suited for connection of a large number of I/O points. Up to 126 addressable bus nodes enable connection of thousands of analogue and digital I/O points within a network.

Every PROFIBUS-DP module has a so-called "GSD" file (Gerätestammdatendatei = device data base file) containing detailed information on the module: I/O data volume, transmission rates, revision status etc. The GSD file is needed to configure a station within a PROFIBUS-DP system. The GSD files can be downloaded from TURCK's internet site (www.turck.com).

Maximum system expansion

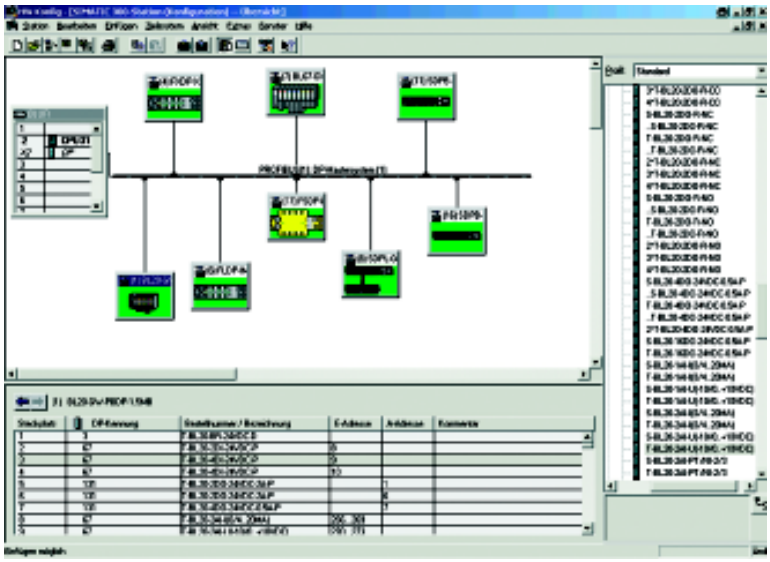
It is not permitted to use more than 32 devices per segment. One segment is defined as the bus section between two repeaters. If no repeaters are used, the entire network corresponds to one segment. The master and the repeaters also count among the connectable devices. Segments must comply with the specified maximum length and the respective transmission rates. Up to nine repeaters may be connected within a network.

The maximum length of a bus line within a segment and the maximum number of repeaters are listed in the following table.

Transmission speed	Length of the bus line	Max. no. of repeaters	Max. no. of bus stations
9,6 KBd	1200 m	2	126
19,2 KBd	1200 m	2	126
93,75 KBd	1200 m	2	126
187,5 KBd	1000 m	2	126
500 KBd	400 m	4	126
1,5 MBd	200 m	6	126
12 MBd	100 m	9	126

PROFIBUS-DP – configuration software

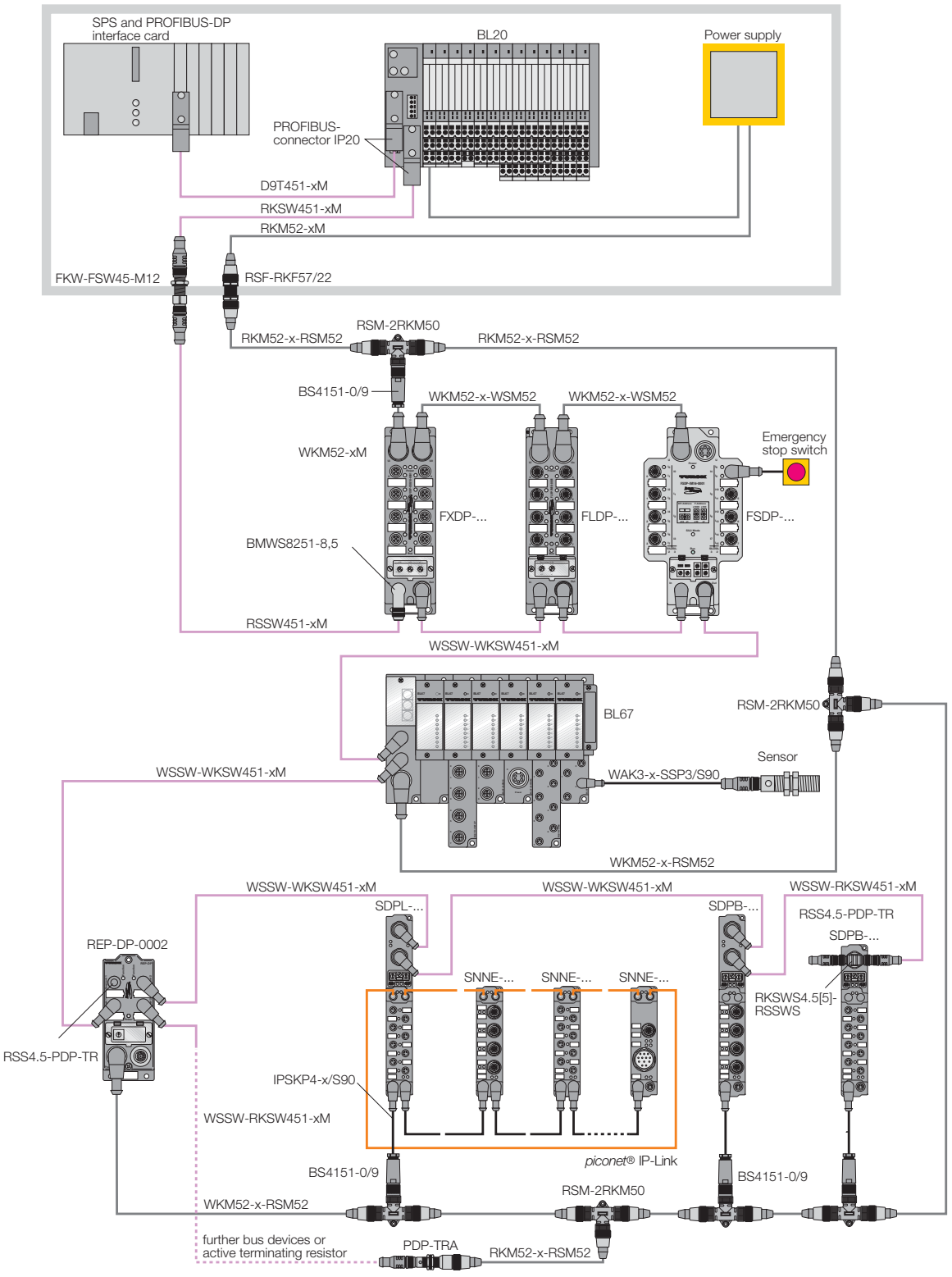
The screenshot shows an excerpt of the PROFIBUS-DP configuration software.



Application example

The illustration outlines a model PROFIBUS-DP network assembled with TURCK devices. Alongside the compact IP67 fieldbus stations described in the catalogue, TURCK offers additional modular bus components for the IP20 (BL20) and the IP67 environment (BL67 and *piconet*®) which excel in flexibility and user-friendly set-up and configuration.

Premoulded cables in various designs, as well as field-wireable connectors, feed-through receptacles for cabinet mounting, flange connectors, tees, terminating resistors and repeaters are available for network construction.



System description

DeviceNet™ is an inexpensive transmission system for networking industrial field devices such as limit switches, photoelectric sensors, valve terminals, motor contactors, barcode scanners, frequency converters etc. Due to direct interconnection of devices, wiring expenses can be reduced significantly and detailed diagnostics, which are infeasbile with conventional wiring methods, are thus provided.

DeviceNet™ is based on a so-called broadcast-oriented communication architecture, the CAN (Controller Area Network). CAN uses the CSMA/CA-bus access method. CSMA/CA ensures reliable transmission of the message with the highest priority. The DeviceNet™ protocol defines theses higher priority messages by giving the input/output data messages the highest priority whereas configuration message have lower priority.

A DeviceNet™ network supports up to 64 nodes and an almost unlimited number of I/Os. The bus uses a line topology with short drop lines. Data and power are transferred via a single cable.

The bus chips and the input channels of the nodes are powered via the 24-VDC power supply. Some TURCK stations require an additional 24 VDC auxiliary power supply to operate possibly needed outputs.

The communication profile of the stations comprises: UCMM, Offline Connection Set, Polled I/O, COS/Cyclic, Bitstrobe, Device Heartbeat Message, Device Shut Down Message. The user may select a master/slave, a multi-master or a combined system configuration according to his application needs.

Maximum system expansion

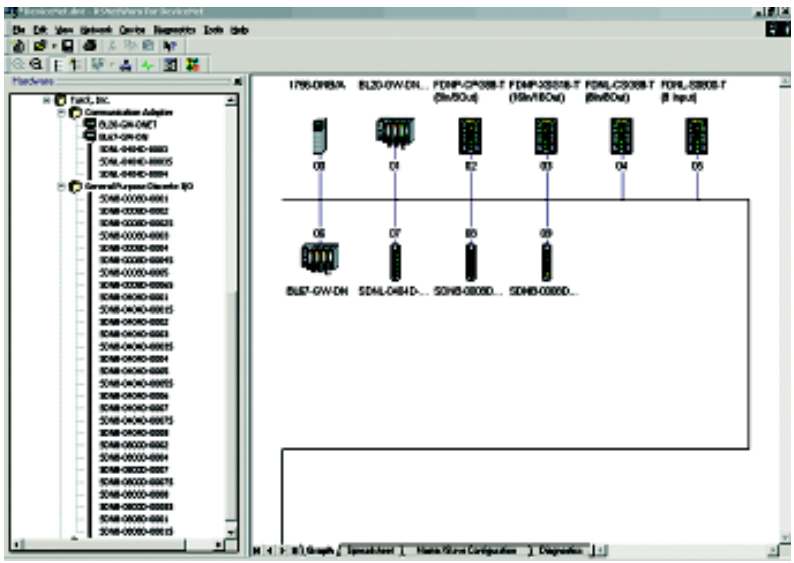
DeviceNet™ is based on a line structure with drop cables. The line is the main bus cable (trunk line) and requires a 120 Ω terminating resistor on both ends.
The length of the trunk line depends on the transmission speed and the cable type used. Drop lines are branches off the bus and can be up to 6 m long.

The total (cumulated) length of the drops also depends on the transmission speed. The following table shows the maximum lengths of a DeviceNet™ line.

Transmission speed	Trunk line (max.)	Drop line (per drop)	Drop lines (total)	Max. no. of nodes
125 kBit/s	500 m (1640 ft)	6 m (20 ft)	156 m (512 ft)	64
250 kBit/s	250 m (820 ft)	6 m (20 ft)	78 m (256 ft)	64
500 kBit/s	100 m (328 ft)	6 m (20 ft)	39 m (128 ft)	64

DeviceNet™ configuration software

The screenshot shows an excerpt of the DeviceNet™ configuration software.



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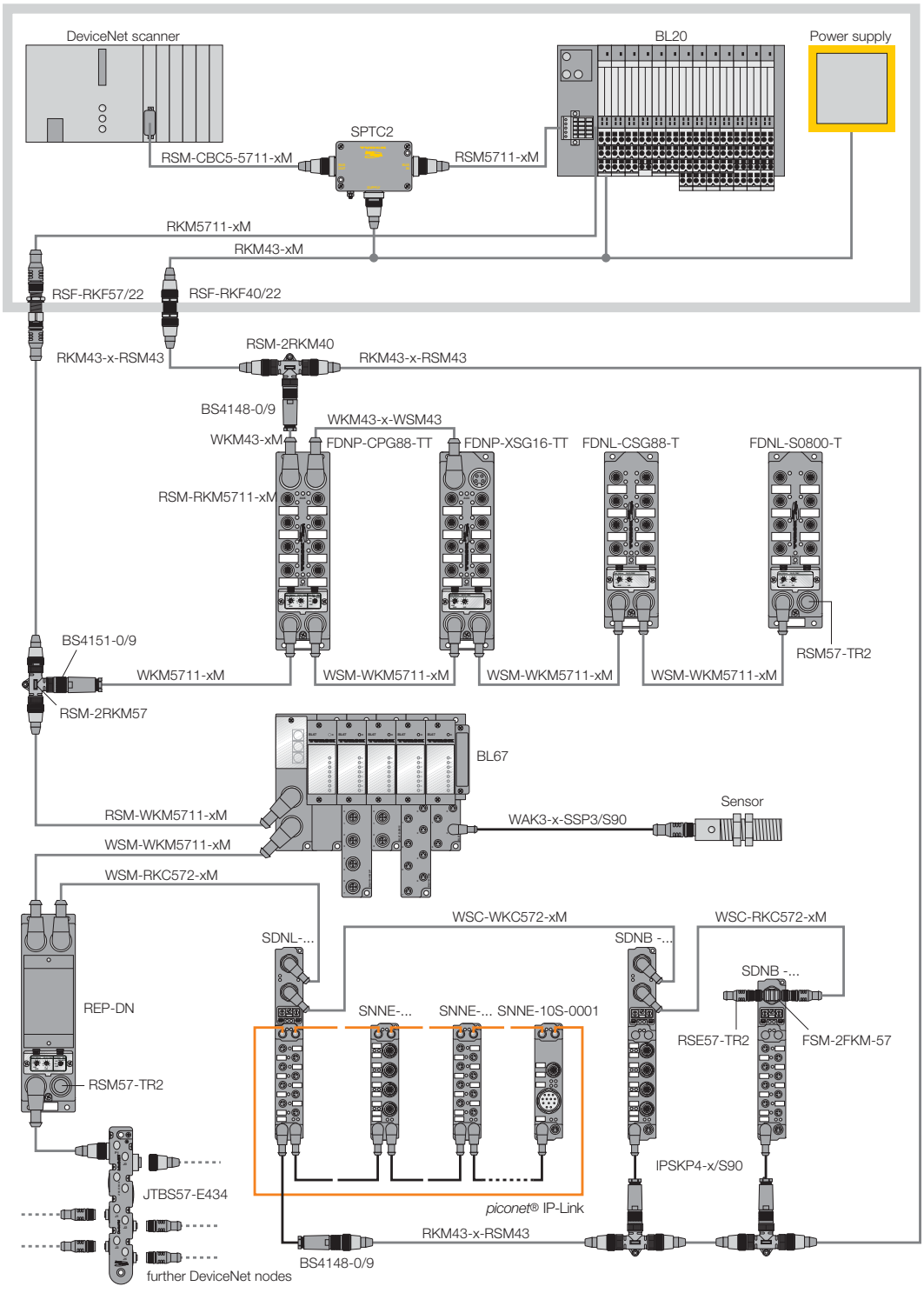
Application example

The illustration outlines a model DeviceNet™ network assembled with TURCK devices. Alongside the compact IP67 fieldbus stations described in the catalogue, TURCK offers additional modular bus components for the IP20 (BL20) and the IP67 environment (BL67 and *piconet*®) which excel in flexibility and user-friendly set-up and configuration.

Premoulded cables in various designs, as well as field-wireable connectors, feed-through receptacles for cabinet mounting, flange connectors, tees, terminating resistors and repeaters are available for network construction.



System description

The most popular standard for networking office computers and associated components is Ethernet according to IEEE 802.3. At the control level of industrial networks, data transmission is almost entirely based on Ethernet networking technology. This standard permits interconnection of devices from different manufacturers via one and the same interface: the identical transmission physics and access mechanisms are user-friendly and significantly reduce network installation times and costs. E-mail and web servers etc. also use this technology with all its well established advantages. Data can be transferred world-wide via the internet from one Ethernet device to the other.

Advanced automation solutions for the control level, at which large data packets have to be transmitted, mostly apply Ethernet as networking technology. Below this level, at the field level, where signals have to be handled, PROFIBUS-DP, DeviceNet™ or AS-Interface® are primarily used. The disadvantages are obvious: the transmission physics and the installation techniques differ, so that the networking technologies have to be made compatible with each other.

In order to obtain consistency within the automation pyramid, Ethernet is suited to be used as a fieldbus right down to the sensor/actuator level.

The availability of industrial hubs and switches and the development of suitable application protocols enable consistent use of the Ethernet TCP/IP standard down to the signal level. Due to the uniform mode of data transmission between the control and the field level, gateways, which are used to make different networks compatible with each other, are no longer needed and full network transparency is achieved. The Ethernet I/O station can thus be easily connected to local networks. Regardless of the network's location, remote maintenance and process control can be carried out via the internet. Information on the station, such as status and I/O data can be accessed via a standard web server using the HTTP protocol.

Topology

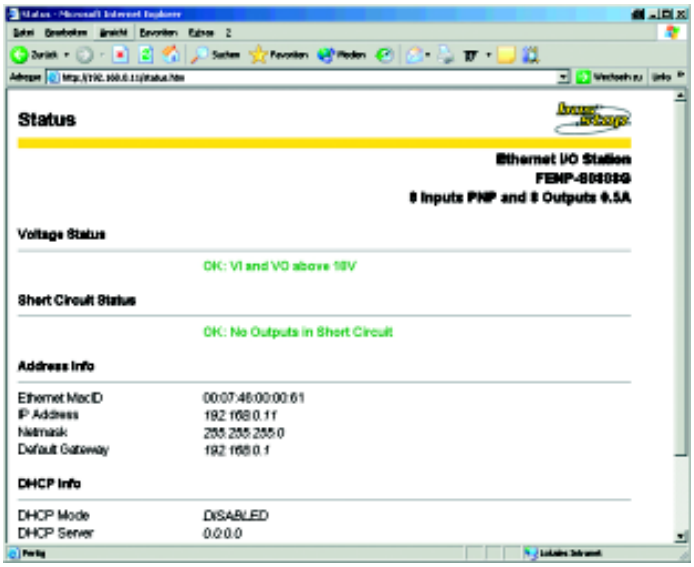
The network topology for interconnection of Ethernet devices is a star or the star-related tree structure. The maximum distance between two devices when using rigid cables for connection may not exceed 100 m. If flexible cables are used, the maximum length depends on the network construction. With a flexible 10 m cable the user is definitely "on the safe side".

Switches and hubs interconnect the Ethernet devices and are thus the nodal points within the star structure. Hubs always send data to and receive data from all nodes, whereas switches feature a structurised data transmission mode. The switches organise data transfer within a routing table in which all connected devices are listed.

This ensures that Ethernet data packets are generally only sent to the allocated target address. The Ethernet is thus not overloaded and collisions are avoided.

Status polling via web server

The status of TURCK's FENP stations can be polled via an integrated web server. The web page to the right shows the station status, possible error indications and address settings.



Application example

The illustration outlines a model Ethernet network assembled with TURCK devices. Alongside the compact IP67 fieldbus stations described in the catalogue, TURCK offers additional modular bus components for the IP20 (BL20) and the IP67 environment (BL67 and *piconet*®), which excel in flexibility and user-friendly set-up and configuration.

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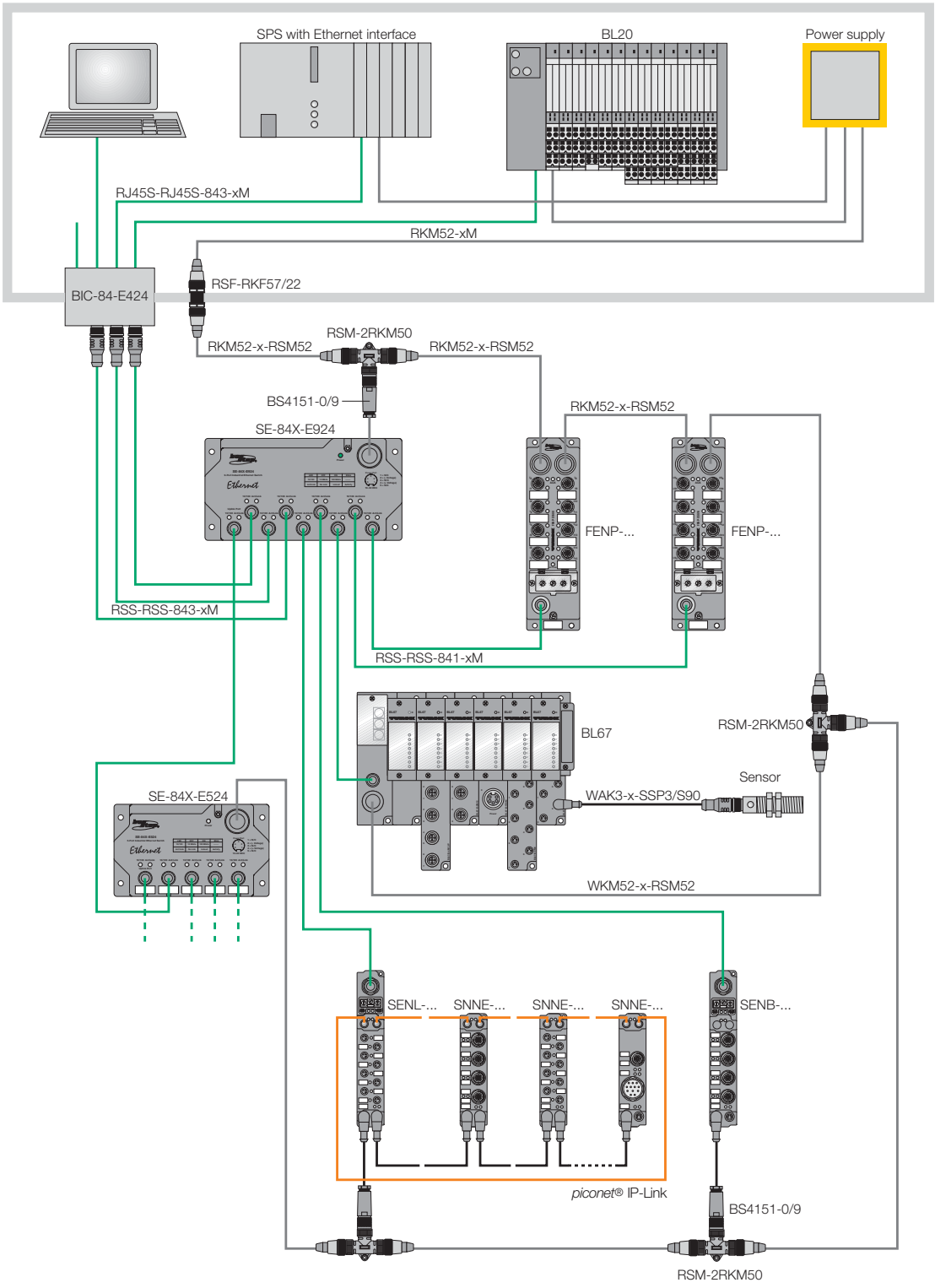
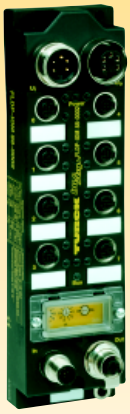


Compact fieldbus stations - device overview

Housing version 1

Series FXDP
Compact flat housing: up to 16 channels, channel diagnostics, configurable I/O range

Housing version 2

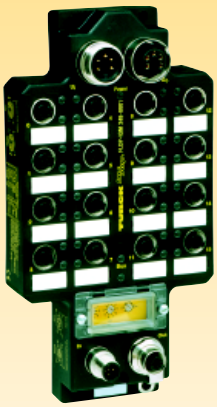


Series FLDP
Compact flat housing:
up to 16 channels, two bus connectors, common diagnostics

Housing version 3

Series FLDP
Compact flat housing:
up to 16 channels, one bus connector, common diagnostics

Housing version 4



Series FLDP
Compact flat housing:
up to 32 channels, common diagnostics

Housing version 5

Series FSDP
compact flat housing:
up to 16 channels for PROFIsafe, SIL 2/3

Type	Ident-no.	Housing version	Number of inputs	Number of outputs	Number of inputs/outputs per connector	Max. load current [A]	integrated bus tee	Data sheets see page
FXDP stations – channel-related diagnostics, parameterisable I/O range								
FXDP-IM8-0001	6825400	1	8	–	1/–	–	•	15
FXDP-IM16-0001	6825401	1	16	–	2/–	–	•	16
FXDP-OM8-0001	6825402	1	–	8	–/1	1,4	•	17
FXDP-OM16-0001	6825403	1	–	16	–/2	1,4	•	18
FXDP-IOM88-0001	6825404	1	8	8	2/2	1,4	•	19
FXDP-CSG88-0001	6825405	1	8	8	1/1	1,4	•	20
FXDP-XSG16-0001	6825406	1	16 configurable channels			1,4	•	21
FLDP stations – common diagnostics								
FLDP-IM8-0001	6825320	2	8	–	1/–	–	•	25
FLDP-IM16-0001	6825326	2	16	–	2/–	–	•	26
FLDP-IM32-0001	6825332	4	32	–	2/–	–	•	27
FLDP-OM8-0001	6825321	2	–	8	–/1	0,5	•	28
FLDP-OM8-0002	6825331	2	–	8	–/1	2	•	29
FLDP-OM16-0001	6825327	2	–	16	–/2	0,5	•	30
FLDP-IOM88-0001	6825322	2	8	8	1/1	0,5	•	31
FLDP-IOM88-0002	6825323	2	8	8	2/2	0,5	•	32
FLDP-IOM84-0001	6825330	2	8	4	2/1	2	•	33
FLDP-IOM84-0002	6825342	3	8	4	2/1	2	–	34
FLDP-IOM1616-0001	6825338	4	16	16	2/2	0,5	•	35
FLDP-IOM248-0001	6825333	4	24	8	2/2	0,5	•	36
FLDP-IOM2012-0001	6825339	4	20	12	Burndy connector	0,5	•	37
FSDP stations for PROFIsafe								
FSDP-IM16-0001	6825360	5	16	–	2/–	–	•	41
FSDP-IOM84-0001	6825361	5	8	4	2/1	2	•	42

Compact fieldbus stations - type code

F L DP - IOM 1616 - 0001

F = Compact fieldbus station, plastic

L = Economy
X = High feature
S = PROFIsafe

PROFIBUS-DP

IM = input module
OM = output module
IOM = input/output module
For FXDP stations only:
CSG = input and output via one connector
XSG = parameterisable I/O range

Number of inputs (first two figures)
Number of outputs (last two figures)

Version number

Compact fieldbus stations - Series FXDP
General information

The fieldbus stations, series FXDP, allow direct connection of up to 16 inputs/ outputs to the PROFIBUS-DP. Glass-fibre reinforced flat plastic housings and the fully encapsulated module electronics guarantee protection degree IP67. Therefore these stations are particularly suited for use in harsh industrial environments.

The station supports transmission rates of up to 12 Mbps and adjusts automatically to the transmission speed determined by the master. The PROFIBUS-DP address is adjusted via three coded rotary switches in a range of 1...126. The switches are located under a transparent protective cover.

Operating and load voltage are fed separately, so that the load voltage U_L can be disabled individually. Thus it is ensured that the module electronics and all inputs continue operation when the outputs are turned off. Therefore, the load supply diagnostic function can also be disabled via configuration. Supply failures of less than 2.5 ms are compensated and thus do not lead to module malfunction. It is also ensured that voltage recovery cannot result in generation of faulty signals.

General technical data

Characteristics	extended diagnostics, connector-specific short-circuit diagnostics of the sensor supply voltage, channel-specific short-circuit diagnostics of the outputs, complete diagnostic data according to standard via the PROFIBUS-DP, channel-related display of status and errors via LEDs, diagnostics can be mapped to user data area (diagnostic inputs)
Adjustment	
PROFIBUS-DP address	1...126 (decimal) adjustable via three coded rotary switches
Transmission rate	9.6 kbps up to 12 Mbps, automatic
LED indications	
Bus (dual colour LED)	green: communication, red: no communication
Power (dual colour LED)	green: operational, OFF: U_B < 18 VDC, red: U_L < 18V (modules with digital outputs)
Inputs (dual colour LED)	green: ON, red: short-circuit
Outputs (dual colour LED)	green: ON, red: short-circuit
Connections	nickel-plated brass connectors
PROFIBUS	1 x male M12 connector (IN), 1 x female M12 connector (OUT), 5-pole, reverse-keyed
Power supply	1 x 7/8” male connector (IN), 1 x 7/8” female connector (OUT), 5-pole
Inputs/outputs	8 female M12 x 1 connectors, 5-pole
Housing	PA6-GF30, glass-fibre reinforced plastic housing with encapsulated electronics and nickel-plated brass connectors
Mounting	via 4 through-holes, Ø 5.4 mm
Degree of protection (IEC 60529/EN 60529)	IP67
Vibration and shock testing	according to EN 60068-2-6, 2-27
EMC	to EN 61000-6-2, IEC 61000-6-4
Temperature range	
– Operating temperature	0 °C to +55 °C (+32 °F to +131 °F)
– Storage and transport temperature	-25 °C to +70 °C (-13 °F to +158 °F)
Dimensions	220.5 x 62.4 x 27 (H x W x D)
Approvals	
Area of application according to ATEX	Ⓔx II 3G EEx nA IIC T4 X
Directives	EC Ex directive 94/9/EG

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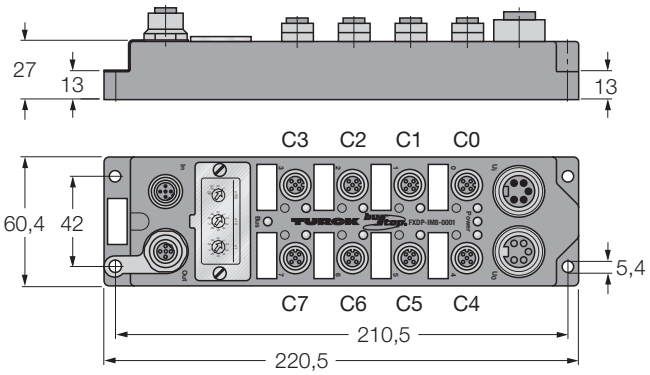
Compact fieldbus station FXDP-IM8-0001
8 inputs



- 8 x 1 inputs
- Extended diagnostics
- Short-circuit diagnostics of inputs per connector
- Diagnostics can be mapped to user data area
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
see page 14

Type	FXDP-IM8-0001
Ident-no.	6825400
Configuration file	TU0_ff1f.gsd (downloadable via the internet under www.turck.com)

Operating voltage U_B	18...30 VDC
Internal current consumption (via U_B)	< 70 mA

Input circuits	(8) pnp 3-wire sensors/2-wire sensors
Input voltage (via U_B)	18...30 VDC
Input current	< 120 mA per connector, short-circuit protected
Switching threshold OFF/ON	2 mA / 4 mA
Switching current limitation	6 mA
Input time delay	2.5 ms
Switching frequency	< 250 Hz
Potential isolation	to bus

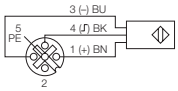
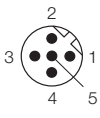
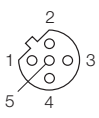
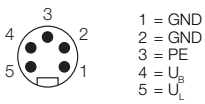
I/O data mapping

C1P4	connector 1, pin 4, (0 = OFF, 1 = ON)
SC	common short-circuit indication (0 = OK, 1= fault)
SC3	short-circuit indication: channel 3
Con 2	overload sensor voltage: connector 2
U_B	U_B < 18 VDC

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	C7P4	C6P4	C5P4	C4P4	C3P4	C2P4	C1P4	C0P4
Diagnosis [3]	**Byte 0**	–	–	–	–	–	U_B	U_L	SC
	Byte 1	SC 7	SC 6	SC 5	SC 4	SC 3	SC 2	SC 1	SC 0
	Byte 2	SC 15	SC 14	SC 13	SC 12	SC 11	SC 10	SC 9	SC 8
	Byte 3	Con 7	Con 6	Con 5	Con 4	Con 3	Con 2	Con 1	Con 0

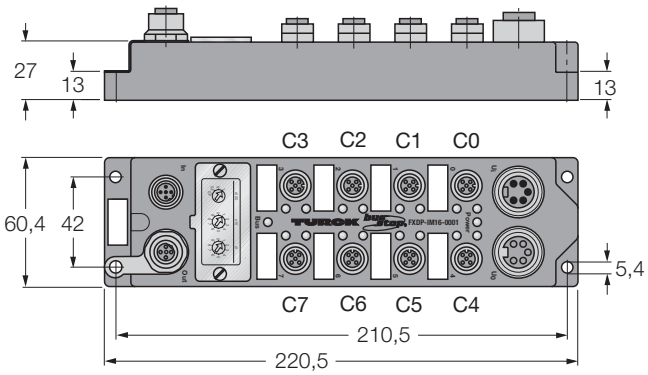
Bit is not used

Wiring diagrams

Inputs	Bus line[1]	Operating voltage
3 wire pnp sensors	Male / Female	Male / Female
	 1 = 5 VDC[2] 2 = Bus-A 3 = GND 4 = Bus-B 5 = shield 	 1 = GND 2 = GND 3 = PE 4 = U_B 5 = U_L
M12 x 1 connectors	M12 x 1 connectors	7/8" connectors

[1]) Reverse-keyed according to PNO guidelines [2]) Female bus connector only
[3]) The manufacturer-specific diagnostics can be fully mapped to the user data area via the configuration menu.

Compact fieldbus station FXDP-IM16-0001
16 inputs



- 8 x 2 inputs
- Extended diagnostics
- Short-circuit diagnostics of inputs per connector
- Diagnostics can be mapped to user data area
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
see page 14

Type	FXDP-IM16-0001
Ident-no.	6825401
Configuration file	TU1_ff1f.gsd (downloadable via the internet under www.turck.com)

Operating voltage U_B	18...30 VDC
Internal current consumption (via U_B)	< 70 mA

Input circuits	(16) pnp 3-wire sensors/2-wire sensors
Input voltage (via U_B)	18...30 VDC
Input current	< 120 mA per connector, short-circuit protected
Switching threshold OFF/ON	2 mA / 4 mA
Switching current limitation	6 mA
Input time delay	2.5 ms
Switching frequency	< 250 Hz
Potential isolation	to bus

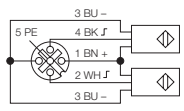
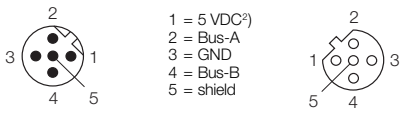
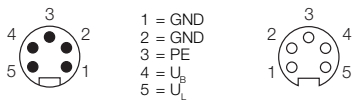
I/O data mapping

C1P4	connector 1, pin 4, (0 = OFF, 1 = ON)
SC	common short-circuit indication (0 = OK, 1= fault)
SC3	short-circuit indication: channel 3
Con 2	overload sensor voltage: connector 2
U_B	U_B < 18 VDC

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	C3P2	C3P4	C2P2	C2P4	C1P2	C1P4	C0P2	C0P4
	Byte 1	C7P2	C7P4	C6P2	C6P4	C5P2	C5P4	C4P2	C4P4
Diagnosis [3]	**Byte 0**	–	–	–	–	–	U_B	U_L	SC
	Byte 1	SC 7	SC 6	SC 5	SC 4	SC 3	SC 2	SC 1	SC 0
	Byte 2	SC 15	SC 14	SC 13	SC 12	SC 11	SC 10	SC 9	SC 8
	Byte 3	Con 7	Con 6	Con 5	Con 4	Con 3	Con 2	Con 1	Con 0

Bit is not used

Wiring diagrams

Inputs	Bus line[1])	Operating voltage
3 wire pnp sensors	Male / Female	Male / Female
		
M12 x 1 connectors	M12 x 1 connectors	7/8" connectors

[1]) Reverse-keyed according to PNO guidelines [2]) Female bus connector only
[3]) The manufacturer-specific diagnostics can be fully mapped to the user data area via the configuration menu.

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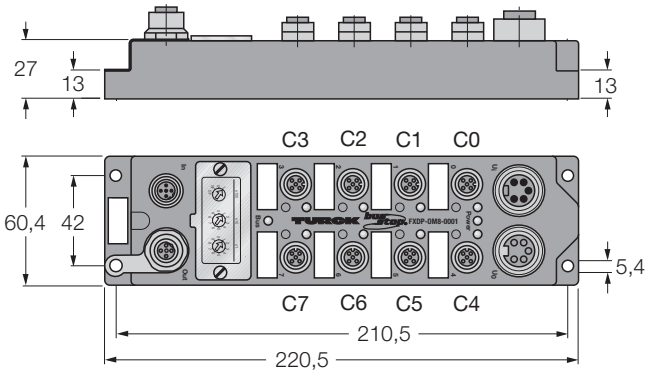
Compact fieldbus station FXDP-OM8-0001
8 outputs



- 8 x 1 outputs (max. 1.4 A per output)
- Extended diagnostics
- Short-circuit diagnostics of the outputs per channel
- Diagnostics can be mapped to user data area
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:** **see page 14**

Type	FXDP-OM8-0001
Ident-no.	6825402
Configuration file	TU2_ff1f.gsd (downloadable via the internet under www.turck.com)

Operating/Load supply U_B/U_L	18...30 VDC
Internal current consumption (via U_B)	< 70 mA

Output circuits	(8) DC actuators
Output voltage (via U_L)	18...30 VDC
Output current	1.4 A per output, (ED = 50 %), short-circuit protection
Switching frequency	< 250 Hz
Galvanic isolation	to bus

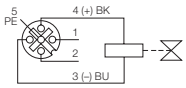
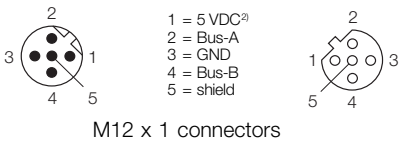
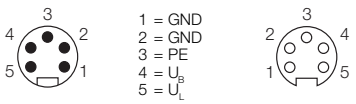
I/O data mapping

C1P4	connector 1, pin 4, (0 = OFF, 1 = ON)
SC	common short-circuit indication (0 = OK, 1= fault)
SC3	short-circuit indication: channel 3
Con 2	overload sensor voltage: connector 2
U_B	U_B < 18 VDC
U_L	U_L < 18 VDC

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Output	**Byte 0**	C7P4	C6P4	C5P4	C4P4	C3P4	C2P4	C1P4	C0P4
Diagnosis [3]	**Byte 0**	–	–	–	–	–	U_B	U_L	SC
	Byte 1	SC 7	SC 6	SC 5	SC 4	SC 3	SC 2	SC 1	SC 0
	Byte 2	SC 15	SC 14	SC 13	SC 12	SC 11	SC 10	SC 9	SC 8
	Byte 3	Con 7	Con 6	Con 5	Con 4	Con 3	Con 2	Con 1	Con 0

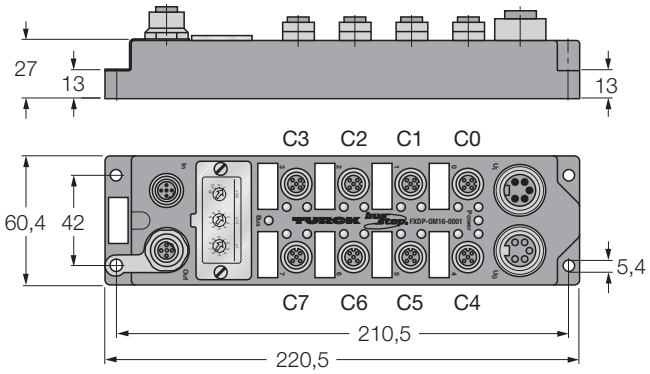
Bit is not used

Wiring diagrams

Outputs	Bus line[1])	Operating/load voltage
DC actuator	Male / Female	Male / Female
		
M12 x 1 connectors	M12 x 1 connectors	7/8" connectors

[1]) Reverse-keyed according to PNO guidelines [2]) Female bus connector only
[3]) The manufacturer-specific diagnostics can be fully mapped to the user data area via the configuration menu.

Compact fieldbus station FXDP-OM16-0001
16 outputs



- 8 x 2 outputs (max. 1.4 A per output)
- Extended diagnostics
- Short-circuit diagnostics of the outputs per channel
- Diagnostics can be mapped to user data area
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
see page 14

Type	FXDP-OM16-0001
Ident-no.	6825403
Configuration file	TU3_ff1f.gsd (downloadable via the internet under www.turck.com)

Operating/ Load supply U_B/U_L	18...30 VDC
Internal current consumption (via U_B)	< 70 mA

Output circuits	(16) DC actuators
Output voltage (via U_L)	18...30 VDC
Output current	1.4 A per output, (ED = 35 %), short-circuit protection
Switching frequency	< 250 Hz
Galvanic isolation	to bus

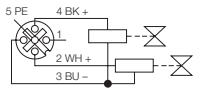
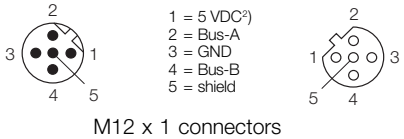
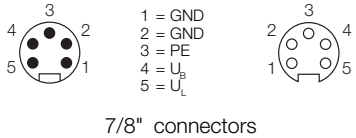
I/O data mapping

C1P4	connector 1, pin 4, (0 = OFF, 1 = ON)
SC	common short-circuit indication (0 = OK, 1= fault)
SC3	short-circuit indication: channel 3
Con 2	overload sensor voltage: connector 2
U_B	U_B < 18 VDC
U_L	U_L < 18 VDC

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Output	**Byte 0**	C3P2	C3P4	C2P2	C2P4	C1P2	C1P4	C0P2	C0P4
	Byte 1	C7P2	C7P4	C6P2	C6P4	C5P2	C5P4	C4P2	C4P4
Diagnosis [3]	**Byte 0**	–	–	–	–	–	U_B	U_L	SC
	Byte 1	SC 7	SC 6	SC 5	SC 4	SC 3	SC 2	SC 1	SC 0
	Byte 2	SC 15	SC 14	SC 13	SC 12	SC 11	SC 10	SC 9	SC 8
	Byte 3	Con 7	Con 6	Con 5	Con 4	Con 3	Con 2	Con 1	Con 0

Bit is not used

Wiring diagrams

Outputs	Bus line[1]	Operating/load voltage
DC actuator	Male / Female	Male / Female
		
M12 x 1 connectors	M12 x 1 connectors	7/8" connectors

[1]) Reverse-keyed according to PNO guidelines [2]) Female bus connector only
[3]) The manufacturer-specific diagnostics can be fully mapped to the user data area via the configuration menu.

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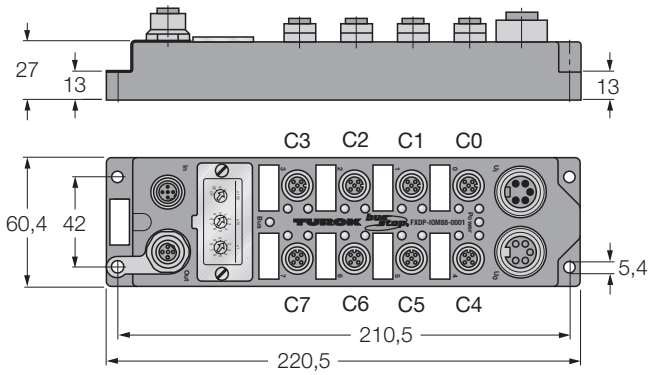
Compact fieldbus station FXDP-IOM88-0001
8 inputs/8 outputs



- 4 x 2 inputs
- 4 x 2 outputs
  (max. 1.4 A per output)
- Extended diagnostics
- Short-circuit diagnostics of inputs per connector
- Short-circuit diagnostics of the outputs per channel
- Diagnostics can be mapped to user data area
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 14

2

Type	FXDP-IOM88-0001
Ident-no.	6825404
Configuration file	TU4_ff1f.gsd (downloadable via the internet under www.turck.com)

Operating/ Load voltage U_B/U_L	18...30 VDC
Internal current consumption (via U_B)	< 70 mA

Input circuits	(8) pnp 3-wire sensors/2-wire sensors
Input voltage (via U_B)	18...30 VDC
Input current	< 120 mA per connector, short-circuit protected
Switching threshold OFF/ON	2 mA / 4 mA
Switching current limitation	6 mA
Input time delay	2.5 ms
Switching frequency	< 250 Hz
Potential isolation	to bus

Output circuits	(8) DC actuators
Output voltage (via U_L)	18...30 VDC
Output current	1.4 A per output, (ED = 50 %), short-circuit protection
Switching frequency	< 250 Hz
Galvanic isolation	to bus

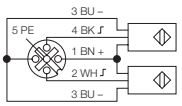
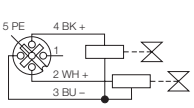
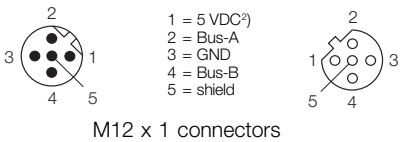
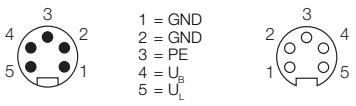
I/O data mapping

C1P4	connector 1, pin 4, (0 = OFF, 1 = ON)
SC	common short-circuit indication (0 = OK, 1= fault)
SC3	short-circuit indication: channel 3
Con 2	overload sensor voltage: connector 2
U_B	U_B < 18 VDC
U_L	U_L < 18 VDC

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	C3P2	C3P4	C2P2	C2P4	C1P2	C1P4	C0P2	C0P4
Output	**Byte 0**	C7P2	C7P4	C6P2	C6P4	C5P2	C5P4	C4P2	C4P4
Diagnosis [3]	**Byte 0**	–	–	–	–	–	U_B	U_L	SC
	Byte 1	SC 7	SC 6	SC 5	SC 4	SC 3	SC 2	SC 1	SC 0
	Byte 2	SC 15	SC 14	SC 13	SC 12	SC 11	SC 10	SC 9	SC 8
	Byte 3	Con 7	Con 6	Con 5	Con 4	Con 3	Con 2	Con 1	Con 0

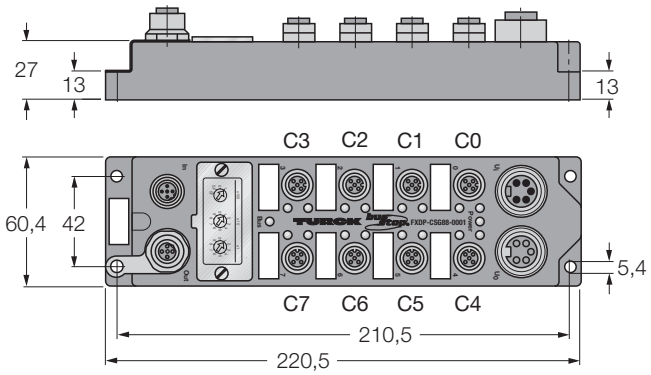
Bit is not used

Wiring diagrams

Inputs	Outputs	Bus line[1])	Operating/load voltage
3 wire pnp sensors	DC actuator	Male / Female	Male / Female
			
M12 x 1 connectors		M12 x 1 connectors	7/8" connectors

[1]) Reverse-keyed according to PNO guidelines [2]) Female bus connector only
[3]) The manufacturer-specific diagnostics can be fully mapped to the user data area via the configuration menu.

Compact fieldbus station FXDP-CSG88-0001
8 inputs/8 outputs



- 8 x 1 inputs
- 8 x 1 outputs (max. 1.4 A per output)
- Extended diagnostics
- Short-circuit diagnostics of inputs per connector
- Short-circuit diagnostics of the outputs per channel
- Diagnostics can be mapped to user data area
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
see page 14

Type	FXDP-CSG88-0001
Ident-no.	6825405
Configuration file	TU6_ff1f.gsd (downloadable via the internet under www.turck.com)

Operating/Load voltage U_B/U_L	18...30 VDC
Internal current consumption (via U_B)	< 70 mA

Input circuits	(8) pnp 3-wire sensors/2-wire sensors
Input voltage (via U_B)	18...30 VDC
Input current	< 120 mA per connector, short-circuit protected
Switching threshold OFF/ON	2 mA / 4 mA
Switching current limitation	6 mA
Input time delay	2.5 ms
Switching frequency	< 250 Hz
Potential isolation	to bus

Output circuits	(8) DC actuators
Output voltage (via U_L)	18...30 VDC
Output current	1.4 A per output, (ED = 50 %), short-circuit protection
Switching frequency	< 250 Hz
Galvanic isolation	to bus

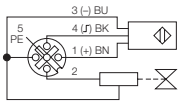
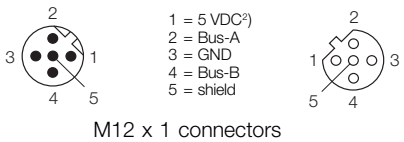
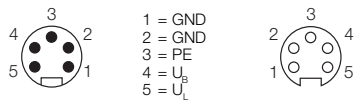
I/O data mapping

C1P4	connector 1, pin 4, (0 = OFF, 1 = ON)
SC	common short-circuit indication (0 = OK, 1= fault)
SC3	short-circuit indication: channel 3
Con 2	overload sensor voltage: connector 2
U_B	U_B < 18 VDC
U_L	U_L < 18 VDC

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	C7P4	C6P4	C5P4	C4P4	C3P4	C2P4	C1P4	C0P4
Output	**Byte 0**	C7P2	C6P2	C5P2	C4P2	C3P2	C2P2	C1P2	C0P2
Diagnosis [3]	**Byte 0**	–	–	–	–	–	U_B	U_L	SC
	Byte 1	SC 7	SC 6	SC 5	SC 4	SC 3	SC 2	SC 1	SC 0
	Byte 2	SC 15	SC 14	SC 13	SC 12	SC 11	SC 10	SC 9	SC 8
	Byte 3	Con 7	Con 6	Con 5	Con 4	Con 3	Con 2	Con 1	Con 0

Bit is not used

Wiring diagrams

Inputs/outputs	Bus line[1])	Operating/load voltage
3 wire pnp sensors/DC actuator	Male / Female	Male / Female
		
M12 x 1 connectors	M12 x 1 connectors	7/8" connectors

[1]) Reverse keyed according to PNO guidelines [2]) Female bus connector only
[3]) The manufacturer-specific diagnostics can be fully mapped to the user data area via the configuration menu.

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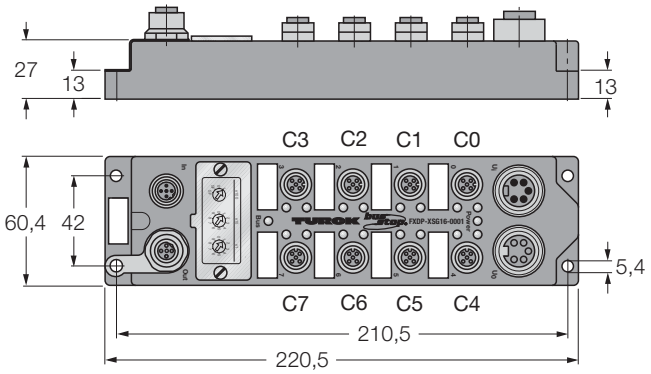
Compact fieldbus station FXDP-XSG16-0001
16 configurable channels



- 16 configurable channels
- Configurable user data area
- Extended diagnostics
- Short-circuit diagnostics of inputs per connector
- Short-circuit diagnostics of the outputs per channel
- Diagnostics can be mapped to user data area
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 14
  Further information:
  see page 22

Type	FXDP-XSG16-0001
Ident-no.	6825406
Configuration file	TU6_ff1f.gsd (downloadable via the internet under www.turck.com)

Operating/ Load voltage U_B/U_L	18...30 VDC
Internal current consumption (via U_B)	< 70 mA

Input circuits	(n) pnp 3-wire sensors/2-wire sensors
Input voltage (via U_B)	18...30 VDC
Input current	< 120 mA per connector, short-circuit protected
Switching threshold OFF/ON	2 mA / 4 mA
Switching current limitation	6 mA
Input time delay	2.5 ms
Switching frequency	< 250 Hz
Potential isolation	to bus

Output circuits	(16-n) DC-Aktuatoren
Output voltage (via U_L)	18...30 VDC
Output current	1.4 A per output, (ED = 35 %), short-circuit protection
Switching frequency	< 250 Hz
Galvanic isolation	to bus

I/O data mapping

C1P4	connector 1, pin 4, (0 = OFF, 1 = ON)
SC	common short-circuit indication (0 = OK, 1= fault)
SC3	short-circuit indication: channel 3
Con 2	overload sensor voltage: connector 2
U_B	U_B < 18 VDC
U_L	U_L < 18 VDC

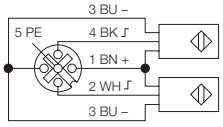
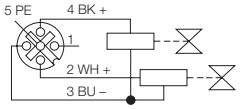
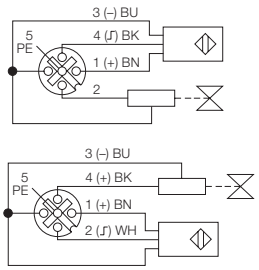
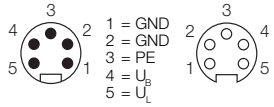
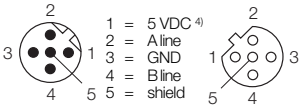
		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input [2]	**Byte 0**	C3P2	C3P4	C2P2	C2P4	C1P2	C1P4	C0P2	C0P4
	Byte 1	C7P2	C7P4	C6P2	C6P4	C5P2	C5P4	C4P2	C4P4
Output [2]	**Byte 0**	C3P2	C3P4	C2P2	C2P4	C1P2	C1P4	C0P2	C0P4
	Byte 1	C7P2	C7P4	C6P2	C6P4	C5P2	C5P4	C4P2	C4P4
Diagnosis [1]	**Byte 0**	–	–	–	–	–	U_B	U_L	SC
	Byte 1	SC 7	SC 6	SC 5	SC 4	SC 3	SC 2	SC 1	SC 0
	Byte 2	SC 15	SC 14	SC 13	SC 12	SC 11	SC 10	SC 9	SC 8
	Byte 3	Con 7	Con 6	Con 5	Con 4	Con 3	Con 2	Con 1	Con 0

[1]The manufacturer-specific diagnostics can be fully mapped to the user data area via the configuration menu.
[2] Each channel can be defined as a digital input (standard, inverted, diagnosis) or as an output via the configuration menu.

Configuration options

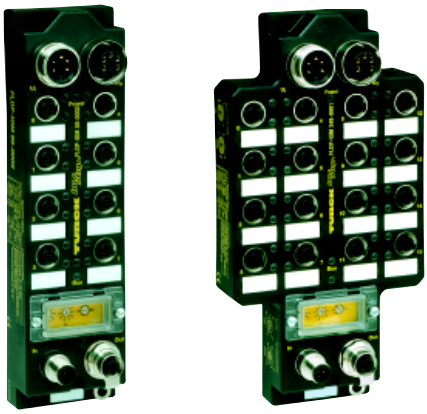
User data area	FXDP-IM8-0001	FXDP-IM16-0001	FXDP-OM8-0001	FXDP-OM16-0001	FXDP-IOM88-0001	FXDP-CSG88-0001	FXDP-XSG16-0001	Configuration/comment
8 Bit IN	✔						✔	I per connector
16 Bit IN		✔					✔	I/I per connector
8 Bit OUT			✔				✔	O per connector
16 Bit OUT				✔			✔	O/O per connector
8 Bit IN, 8 Bit OUT					✔		✔	I/I or O/O per connector
8 Bit IN, 8 Bit OUT						✔	✔	I/O per connector
8 Bit IN, 8 Bit DIAG							✔	I/DIAG[5]) per connector
8 Bit OUT, 8 Bit DIAG							✔	O/DIAG[5]) per connector
12 Bit IN, 4 Bit OUT							✔	I/I or O/O per connector
n Bit IN, 16-n Bit OUT (PROG Mode)							✔	channel as IN, inverted IN, DIAG IN or OUT configurable
n Bit IN, 16-n Bit OUT (AUTO Mode)							✔	outputs are read back
AddOn: DIAG mapped	✔	✔	✔	✔	✔	✔	✔	diagnostics reproduced in user data area

Wiring diagrams

Inputs	Outputs	Inputs/outputs	Operating/load voltage	Bus[3])
3 wire pnp sensors	DC actuator	3 wire pnp sensor/ DC actuator	Male / Female	Male / Female
				
M12 x 1 connectors	M12 x 1 connectors	M12 x 1 connectors	7/8" connectors	M12 x 1 connectors

[3]) Reverse-keyed according to PROFIBUS guidelines [4]) Female bus connector only [5]) Pin 2 is used for monitoring the sensor/actuator line. The inverted signal is read at pin 2. An non-actuated input creates the channel diagnosis "wire-break at pin 2 and pin 4" of the respective connection.

Compact fieldbus stations - Series FLDP
General information



The fieldbus stations, series FLDP, are designed for direct connection of up to 32 inputs/outputs to the PROFIBUS-DP. Glass-fibre reinforced flat plastic housings and the fully encapsulated module electronics guarantee protection degree IP67. Therefore these stations are particularly suited for use in harsh industrial environments.

The station supports transmission rates of up to 12 Mbps and adjusts automatically to the transmission speed determined by the master. The PROFIBUS-DP address is adjusted via two coded rotary switches in a range of 1...99. The switches are located under a transparent protective cover.

Operating and load voltage are fed separately to the device, so that the load voltage U_L can be disabled individually. Thus it is ensured that the module electronics and all inputs continue operation when the outputs are turned off. The third rotary switch is used to disable the load voltage diagnostics.

General technical data

Characteristics	load voltage diagnostics can be disabled via rotary switch, common short-circuit indication
Adjustments	
PROFIBUS-DP address	1...99 (decimal) adjustable via two coded rotary switches
Load voltage diagnostics	can be disabled via coded rotary switch (modules with digital outputs only)
Transmission rate	9.6 kbps up to 12 Mbps, automatic
LED indications	
– Bus (dual colour LED)	green: communication, red: no communication
– Power (dual colour LED)	green: operational, OFF: U_B < 18 VDC red: U_L < 18 V (modules with digital outputs only)
– Inputs	green: ON
– Outputs	green: ON
– Common short-circuit indication	red: short-circuit at one input
Connections	nickel-plated brass connectors
PROFIBUS	M12 x 1 connectors, reverse-keyed
Power supply	7/8" connector, 5-pole
Inputs/outputs	female M12 x 1 connectors; 5-pole
– FLDP-IOM2012-0001 only:	2 x 19-pole Burndy connectors
Housing material	PA6-GF30, glass-fibre reinforced plastic housing with encapsulated electronics and nickel-plated connectors
Mounting	via 4 through-holes, Ø 5.4 mm
Degree of protection (IEC 60529/EN 60529)	IP67 (NEMA 1, 3, 4, 12, 13)
Vibration and shock testing	according to EN 60068-2-6, 2-27
Temperature range	0 °C to +55 °C (+32 °F to +131 °F)
Dimensions	
– Modules with 8, 12 and 16 channels	220.5 x 62.4 x 27 (H x W x D)
– Modules with 32 channels	220.5 x 115 x 27 (H x W x D)

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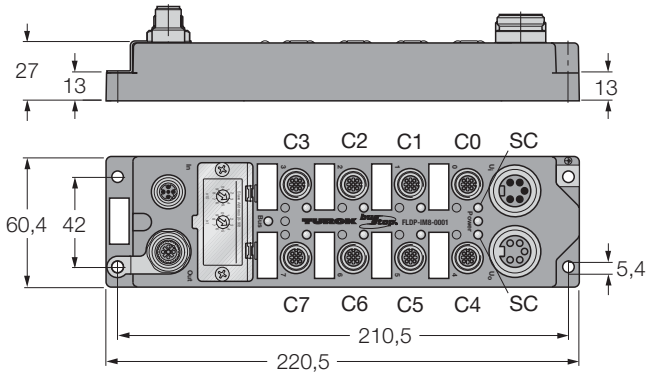
Compact fieldbus station FLDP-IM8-0001
8 inputs



- 8 x 1 inputs
- Common short-circuit indication of inputs
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 24

Type	FLDP-IM8-0001
Ident-no.	6825320
Configuration file	TRCKFF10.gsd (downloadable via the internet under www.turck.com)

Operating voltage U_B	18...30 VDC
Internal current consumption (via U_B)	< 110 mA

Input circuits	(8) pnp 3-wire sensors/2-wire sensors
Input voltage (via U_B)	18...30 VDC
Input current	< 500 mA per 4 inputs, short-circuit protected
Switching threshold OFF/ON	2 mA / 4 mA
Input time delay	2.5 ms
Switching frequency	< 250 Hz
Potential isolation	to bus

I/O data mapping

Abbreviations:

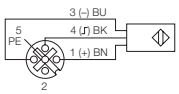
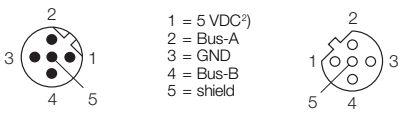
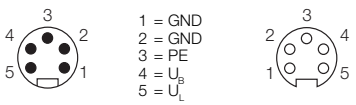
C1P4 connector 1, pin 4, (0 = OFF, 1 = ON)

SC common short-circuit indication of the inputs, I > 500 mA (0 = OK, 1= fault)

U_B U_B < 18 VDC

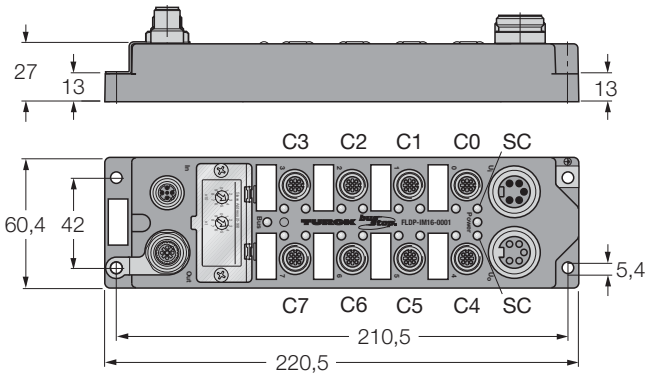
		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	C7P4	C6P4	C5P4	C4P4	C3P4	C2P4	C1P4	C0P4
Diagnosis	**Byte 0**	–	–	–	–	–	U_B	–	SC

Wiring diagrams

Inputs	Bus line[1])	Operating voltage
3 wire pnp sensors  M12 x 1 connectors	Male / Female  M12 x 1 connectors	Male / Female  7/8" connectors

[1]) Reverse-keyed according to PNO guidelines [2]) Female bus connector only

Compact fieldbus station FLDP-IM16-0001
16 inputs



- 8 x 2 inputs
- Common short-circuit indication of inputs
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 24

Type	FLDP-IM16-0001
Ident-no.	6825326
Configuration file	TRCKFF12.gsd (downloadable via the internet under www.turck.com)

Operating voltage U_B	18...30 VDC
Internal current consumption (via U_B)	< 110 mA

Input circuits	(16) pnp 3-wire sensors/2-wire sensors
Input voltage (via U_B)	18...30 VDC
Input current	< 500 mA per 8 inputs, short-circuit protected
Switching threshold OFF/ON	2 mA / 4 mA
Input time delay	2.5 ms
Switching frequency	< 250 Hz
Potential isolation	to bus

I/O data mapping

Abbreviations:

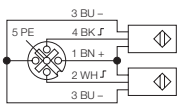
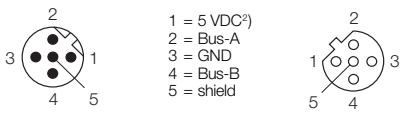
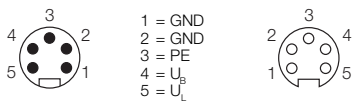
C1P4 connector 1, pin 4, (0 = OFF, 1 = ON)

SC common short-circuit indication of the inputs, I > 500 mA (0 = OK, 1= fault)

U_B U_B < 18 VDC

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	C3P2	C3P4	C2P2	C2P4	C1P2	C1P4	C0P2	C0P4
	Byte 1	C7P2	C7P4	C6P2	C6P4	C5P2	C5P4	C4P2	C4P4
Diagnosis	**Byte 0**	–	–	–	–	–	U_B	–	SC

Wiring diagrams

Inputs	Bus line[1)]	Operating voltage
3 wire pnp sensors	Male / Female	Male / Female
		
M12 x 1 connectors	M12 x 1 connectors	7/8" connectors

[1)] Reverse-keyed according to PNO guidelines [2)] Female bus connector only

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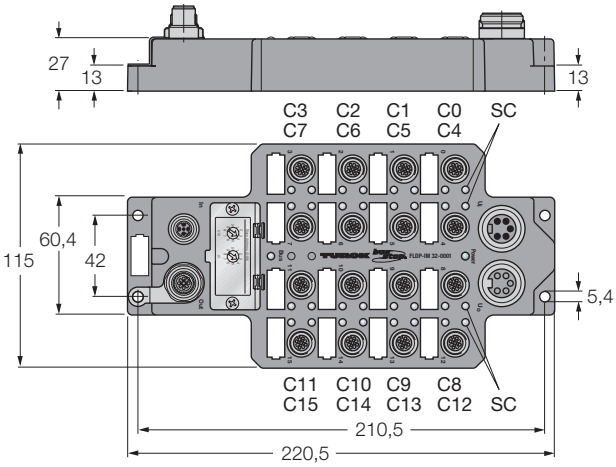
Compact fieldbus station FLDP-IM32-0001
32 inputs



- 16 x 2 inputs
- Common short-circuit indication of inputs
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
see page 24

2

Type	FLDP-IM32-0001
Ident-no.	6825332
Configuration file	TRCKFF16.gsd (downloadable via the internet under www.turck.com)

Operating voltage U_B	18...30 VDC
Internal current consumption (via U_B)	< 110 mA (from operating voltage)

Input circuits	(32) pnp 3-wire sensors/2-wire sensors
Input voltage (via U_B)	18...30 VDC
Input current	< 500 mA per 8 inputs, short-circuit protected
Switching threshold OFF/ON	2 mA / 4 mA
Input time delay	2.5 ms
Switching frequency	< 250 Hz
Potential isolation	to bus

I/O data mapping

Abbreviations:

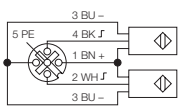
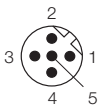
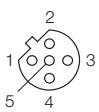
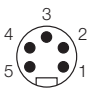
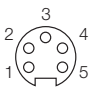
C1P4 connector 1, pin 4, (0 = OFF, 1 = ON)

SC common short-circuit indication of the inputs, I > 500 mA (0 = OK, 1= fault)

U_B U_B < 18 VDC

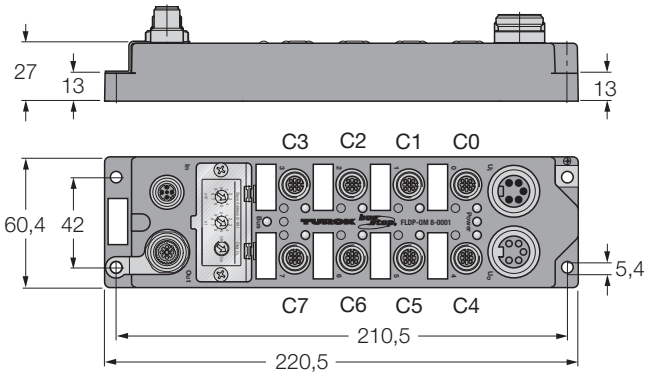
		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	C3P2	C3P4	C2P2	C2P4	C1P2	C1P4	C0P2	C0P4
	Byte 1	C7P2	C7P4	C6P2	C6P4	C5P2	C5P4	C4P2	C4P4
	Byte 2	C11P2	C11P4	C10P2	C10P4	C9P2	C9P4	C8P2	C8P4
	Byte 3	C15P2	C15P4	C14P2	C14P4	C13P2	C13P4	C12P2	C12P4
Diagnosis	**Byte 0**	–	–	–	–	–	U_B	–	SC

Wiring diagrams

Inputs	Bus line[1])	Operating voltage
3 wire pnp sensors  M12 x 1 connectors	Male  1 = 5 VDC[2]) 2 = Bus-A 3 = GND 4 = Bus-B 5 = shield Female  M12 x 1 connectors	Male  1 = GND 2 = GND 3 = PE 4 = U_B 5 = U_L Female  7/8" connectors

[1]) Reverse-keyed according to PNO guidelines [2]) Female bus connector only

Compact fieldbus station FLDP-OM8-0001
8 outputs



- 8 x 1 outputs (max. 0,5 A per output)
- Load voltage diagnostics can be disabled via coded rotary switches
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:** **see page 24**

Type	FLDP-OM8-0001
Ident-no.	6825321
Configuration file	TRCKFF11.gsd (downloadable via the internet under www.turck.com)
Operating/Load voltage U_B/U_L	18...30 VDC
Internal current consumption (via U_B)	< 150 mA
Output circuits	(8) DC actuators
Output voltage (via U_L)	18...30 VDC
Output current	0.5 A per output, short-circuit protection
Switching frequency	< 250 Hz
Galvanic isolation	to bus

I/O data mapping

Abbreviations:

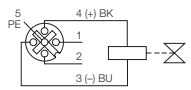
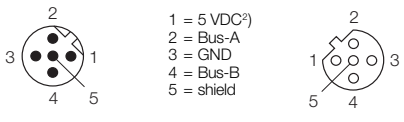
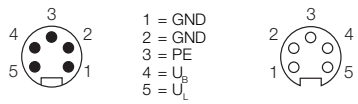
C1P4 connector 1, pin 4 (0 = OFF, 1 = ON)

U_L U_L < 18 VDC

U_B U_B < 18 VDC

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Output	**Byte 0**	C7P4	C6P4	C5P4	C4P4	C3P4	C2P4	C1P4	C0P4
Diagnosis	**Byte 0**	–	–	–	–	–	U_B	U_L	–

Wiring diagrams

Outputs	Bus line[1])	Operating/load voltage
DC actuator	Male / Female	Male / Female
		
M12 x 1 connectors	M12 x 1 connectors	7/8" connectors

[1]) Reverse-keyed according to PNO guidelines [2]) Female bus connector only

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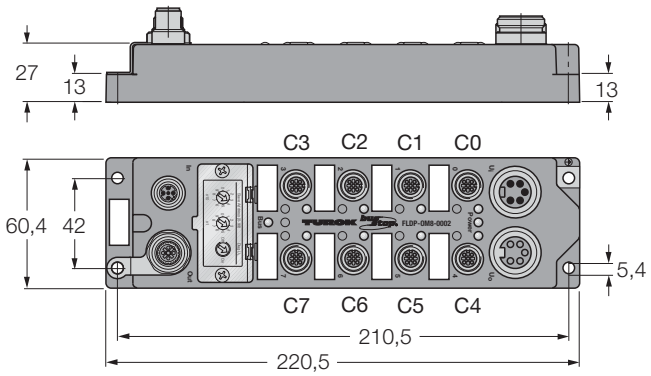
Compact fieldbus station FLDP-OM8-0002
8 outputs



- 8 x 1 outputs (max. 2 A per output)
- Load voltage diagnostics can be disabled via coded rotary switches
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information: see page 24**

Type	FLDP-OM8-0002
Ident-no.	6825331
Configuration file	TRCKFF1A.gsd (downloadable via the internet under www.turck.com)
Operating/Load voltage U_B/U_L	18...30 VDC
Internal current consumption (via U_B)	< 150 mA
Output circuits	(8) DC actuators
Output voltage (via U_L)	18...30 VDC
Output current	2 A per output, 50 % ED, short-circuit protection
Switching frequency	< 250 Hz
Galvanic isolation	to bus

I/O data mapping

Abbreviations:

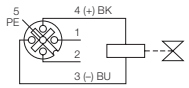
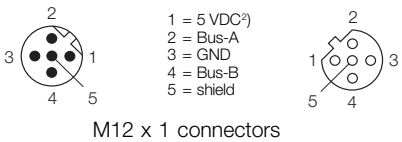
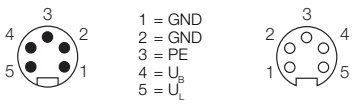
C1P4 connector 1, pin 4 (0 = OFF, 1 = ON)

U_L U_L < 18 VDC

U_B U_B < 18 VDC

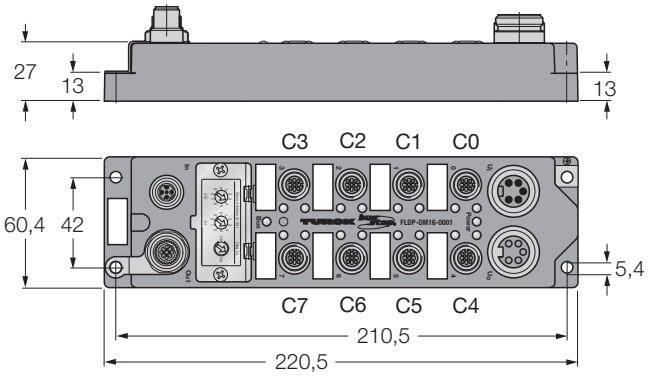
		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Output	**Byte 0**	C7P4	C6P4	C5P4	C4P4	C3P4	C2P4	C1P4	C0P4
Diagnosis	**Byte 0**	–	–	–	–	–	U_B	U_L	–

Wiring diagrams

Outputs	Bus line[1])	Operating/load voltage
DC actuator	Male / Female	Male / Female
		
M12 x 1 connectors	M12 x 1 connectors	7/8" connectors

[1]) Reverse-keyed according to PNO guidelines [2]) Female bus connector only

Compact fieldbus station FLDP-OM16-0001
16 outputs



- 8 x 2 outputs (max. 0.5 A per output)
- Load voltage diagnostics can be disabled via coded rotary switches
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:** **see page 24**

Type	FLDP-OM16-0001
Ident-no.	6825327
Configuration file	TRCKFF13.gsd (downloadable via the internet under www.turck.com)
Operating/Load voltage U_B/U_L	18...30 VDC
Internal current consumption (via U_B)	< 150 mA
Output circuits	(16) DC actuators
Output voltage (via U_L)	18...30 VDC
Output current	0.5 A per output, short-circuit protection
Switching frequency	< 250 Hz
Galvanic isolation	to bus

I/O data mapping

Abbreviations:

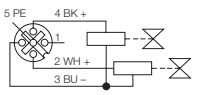
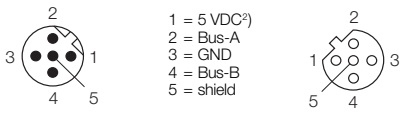
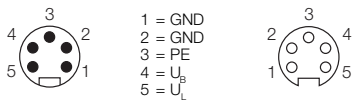
C1P4 connector 1, pin 4 (0 = OFF, 1 = ON)

U_L U_L < 18 VDC

U_B U_B < 18 VDC

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Output	**Byte 0**	C3P2	C3P4	C2P2	C2P4	C1P2	C1P4	C0P2	C0P4
	Byte 1	C7P2	C7P4	C6P2	C6P4	C5P2	C5P4	C4P2	C4P4
Diagnosis	**Byte 0**	–	–	–	–	–	U_B	U_L	–

Wiring diagrams

Outputs	Bus line[1])	Operating/load voltage
DC actuator	Male / Female	Male / Female
		
M12 x 1 connectors	M12 x 1 connectors	7/8" connectors

[1]) Reverse-keyed according to PNO guidelines [2]) Female bus connector only

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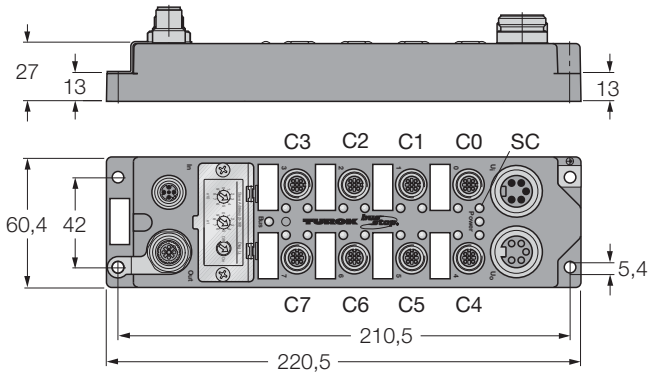
Compact fieldbus station FLDP-IOM88-0001
8 inputs/8 outputs



- 8 x 1 inputs/
  8 x 1 outputs
  (max. 0.5 A per output)
- Common short-circuit indication of inputs
- Load voltage diagnostics can be disabled via coded rotary switches
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 24

Type	FLDP-IOM88-0001
Ident-no.	6825322
Configuration file	TRCKFF14.gsd (downloadable via the internet under www.turck.com)

Operating/Load voltage U_B/U_L	18...30 VDC
Internal current consumption (via U_B)	< 150 mA

Input circuits	(8) pnp 3-wire sensors/2-wire sensors
Input voltage (via U_B)	18...30 VDC
Input current	< 500 mA per 4 inputs, short-circuit protected
Switching threshold OFF/ON	2 mA / 4 mA
Input time delay	2.5 ms
Switching frequency	< 250 Hz
Potential isolation	to bus

Output circuits	(8) DC actuators
Output voltage (via U_L)	18...30 VDC
Output current	0.5 A per output, short-circuit protection
Switching frequency	< 250 Hz
Potential isolation	to bus

I/O data mapping

Abbreviations:

C1P4 connector 1, pin 4, (0 = OFF, 1 = ON)

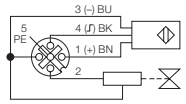
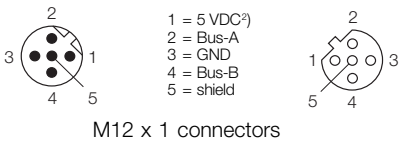
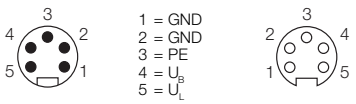
SC common short-circuit indication of the inputs, I > 500 mA (0 = OK, 1= fault)

U_L U_L < 18 VDC

U_B U_B < 18 VDC

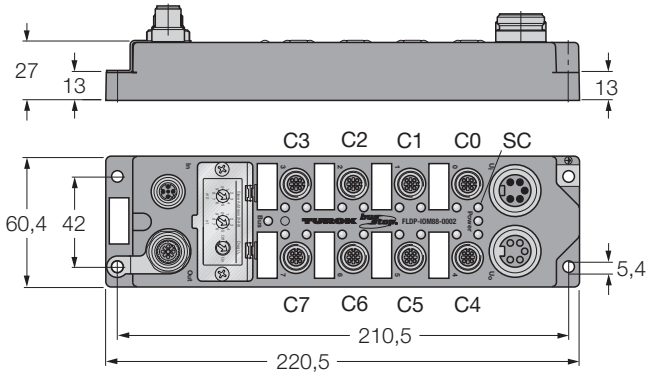
		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	C7P4	C6P4	C5P4	C4P4	C3P4	C2P4	C1P4	C0P4
Output	**Byte 0**	C7P2	C6P2	C5P2	C4P2	C3P2	C2P2	C1P2	C0P2
Diagnosis	**Byte 0**	–	–	–	–	–	U_B	U_L	SC

Wiring diagrams

Inputs/outputs	Bus line[1])	Operating/load voltage
3 wire pnp sensors/DC actuator	Male / Female	Male / Female
		
M12 x 1 connectors	M12 x 1 connectors	7/8" connectors

[1]) Reverse-keyed according to PNO guidelines [2]) Female bus connector only

Compact fieldbus station FLDP-IOM88-0002
8 inputs/8 outputs



- 4 x 2 inputs/
  4 x 2 outputs
  (max. 0.5 A per output)
  (inputs on left connector,
  outputs on right connector)
- Common short-circuit indication of inputs
- Load voltage diagnostics can be disabled via coded rotary switches
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 24

Type	FLDP-IOM88-0002
Ident-no.	6825323
Configuration file	TRCKFF15.gsd (downloadable via the internet under www.turck.com)
Operating/Load voltage U_B/U_L	18...30 VDC
Internal current consumption (via U_B)	< 150 mA
Input circuits	(8) pnp 3-wire sensors/2-wire sensors
Input voltage (via U_B)	18...30 VDC
Input current	< 500 mA per 8 inputs, short-circuit protected
Switching threshold OFF/ON	2 mA / 4 mA
Input time delay	2.5 ms
Switching frequency	< 250 Hz
Potential isolation	to bus
Output circuits	(8) DC actuators
Output voltage (via U_L)	18...30 VDC
Output current	0.5 A per output, short-circuit protection
Switching frequency	< 250 Hz
Potential isolation	to bus

I/O data mapping

Abbreviations:

C1P4 connector 1, pin 4, (0 = OFF, 1 = ON)

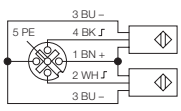
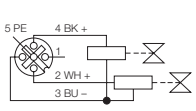
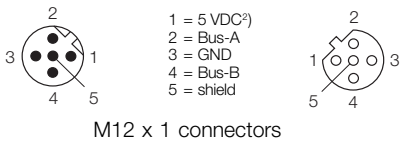
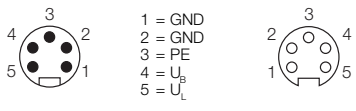
SC common short-circuit indication of the inputs, I > 500 mA (0 = OK, 1= fault)

U_L U_L < 18 VDC

U_B U_B < 18 VDC

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	C3P2	C3P4	C2P2	C2P4	C1P2	C1P4	C0P2	C0P4
Output	**Byte 0**	C7P2	C7P4	C6P2	C6P4	C5P2	C5P4	C4P2	C4P4
Diagnosis	**Byte 0**	–	–	–	–	–	U_B	U_L	SC

Wiring diagrams

Inputs	Outputs	Bus line[1])	Operating/load voltage
3 wire pnp sensor	DC actuator	Male / Female	Male / Female
			
M12 x 1 connectors		M12 x 1 connectors	7/8" connectors

[1]) Reverse-keyed according to PNO guidelines [2]) Female bus connector only

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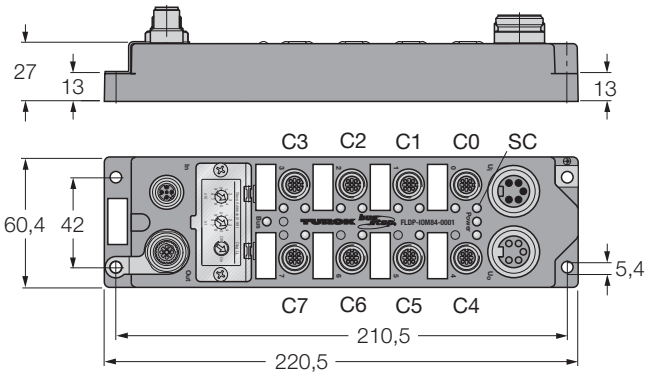
Compact fieldbus station FLDP-IOM84-0001
8 inputs/4 outputs



- 4 x 2 inputs/
  4 x 1 outputs
  (max. 2 A per output)
  (inputs on left connector,
  outputs on right connector)
- Common short-circuit indication of inputs
- Load voltage diagnostics can be disabled via coded rotary switches
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 24

Type	FLDP-IOM84-0001
Ident-no.	6825330
Configuration file	TRCKFF1B.gsd (downloadable via the internet under www.turck.com)

Operating/load voltage U_B/U_L	18...30 VDC
Internal current consumption (via U_B)	< 150 mA

Input circuits	(8) pnp 3-wire sensors/2-wire sensors
Input voltage (via U_B)	18...30 VDC
Input current	< 500 mA per 8 inputs, short-circuit protected
Switching threshold OFF/ON	2 mA / 4 mA
Input time delay	2.5 ms
Switching frequency	< 250 Hz
Potential isolation	to bus

Output circuits	(4) DC actuators
Output voltage (via U_L)	18...30 VDC
Output current	2 A per output, short-circuit protection
Switching frequency	< 250 Hz
Potential isolation	to bus

I/O data mapping

Abbreviations:

C1P4 connector 1, pin 4, (0 = OFF, 1 = ON)

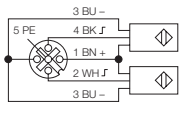
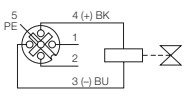
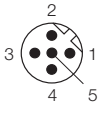
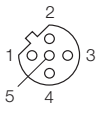
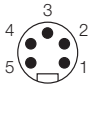
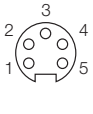
SC common short-circuit indication of the inputs, I > 500 mA (0 = OK, 1= fault)

U_L U_L < 18 VDC

U_B U_B < 18 VDC

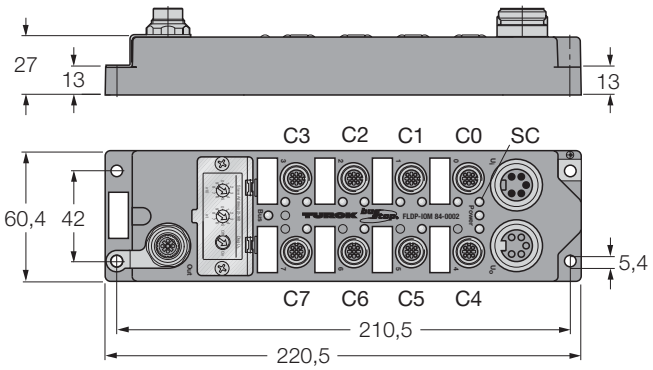
		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	C3P2	C3P4	C2P2	C2P4	C1P2	C1P4	C0P2	C0P4
Output	**Byte 0**	–	C7P4	–	C6P4	–	C5P4	–	C4P4
Diagnosis	**Byte 0**	–	–	–	–	–	U_B	U_L	SC

Wiring diagrams

Inputs	Outputs	Bus line[1])	Operating/load voltage
3 wire pnp sensor  M12 x 1 connectors	DC actuator  	Male  1 = 5 VDC[2]) 2 = Bus-A 3 = GND 4 = Bus-B 5 = shield Female  M12 x 1 connectors	Male  1 = GND 2 = GND 3 = PE 4 = U_B 5 = U_L Female  7/8" connectors

[1]) Reverse-keyed according to PNO guidelines [2]) Female bus connector only

Compact fieldbus station FLDP-IOM84-0002
8 inputs/4 outputs



- 4 x 2 inputs/
  4 x 1 outputs
  (max. 2 A per output)
  (inputs on left connector,
  outputs on right connector)
- Common short-circuit indication of inputs
- Load voltage diagnostics can be disabled via coded rotary switches
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 24

Type	FLDP-IOM84-0002
Ident-no.	6825342
Configuration file	TRCKFF1B.gsd (downloadable via the internet under www.turck.com)
Operating/load voltage U_B/U_L	18...30 VDC
Internal current consumption (via U_B)	< 150 mA
Input circuits	(8) pnp 3-wire sensors/2-wire sensors
Input voltage (via U_B)	18...30 VDC
Input current	< 500 mA per 8 inputs, short-circuit protected
Switching threshold OFF/ON	2 mA / 4 mA
Input time delay	2.5 ms
Switching frequency	< 250 Hz
Potential isolation	to bus
Output circuits	(4) DC actuators
Output voltage (via U_L)	18...30 VDC
Output current	2 A per output, short-circuit protection
Switching frequency	< 250 Hz
Potential isolation	to bus

I/O data mapping

Abbreviations:

C1P4 connector 1, pin 4, (0 = OFF, 1 = ON)

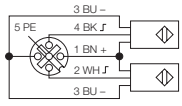
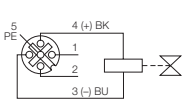
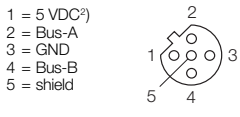
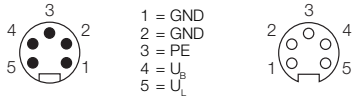
SC common short-circuit indication of the inputs, I > 500 mA (0 = OK, 1= fault)

U_L U_L < 18 VDC

U_B U_B < 18 VDC

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	C3P2	C3P4	C2P2	C2P4	C1P2	C1P4	C0P2	C0P4
Output	**Byte 0**	–	C7P4	–	C6P4	–	C5P4	–	C4P4
Diagnosis	**Byte 0**	–	–	–	–	–	U_B	U_L	SC

Wiring diagrams

Inputs	Outputs	Bus line[1])	Operating/load voltage
3 wire pnp sensor	DC actuator	Female	Male / Female
			
M12 x 1 connectors		M12 x 1 connectors	7/8" connectors

[1]) Reverse-keyed according to PNO guidelines [2]) Female bus connector only

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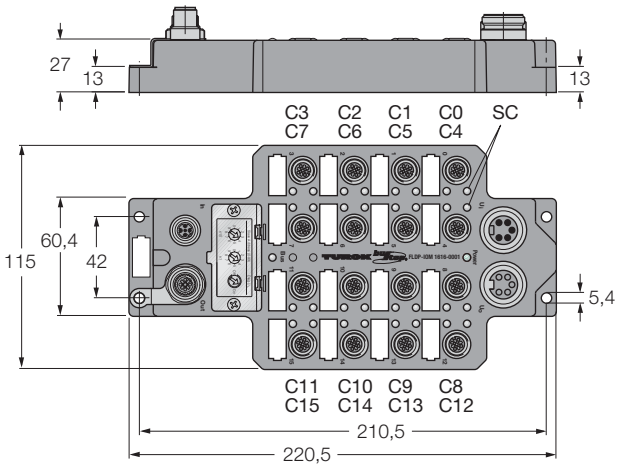
Compact fieldbus station FLDP-IOM1616-0001
16 inputs/16 outputs



- 8 x 2 inputs/
  8 x 2 outputs
  (max. 0.5 A per output)
  (inputs on left connector,
  outputs on right connector)
- Common short-circuit indication of inputs
- Load voltage diagnostics can be disabled via coded rotary switches
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 24

Type	FLDP-IOM1616-0001
Ident-no.	6825338
Configuration file	TRCKFF18.gsd (downloadable via the internet under www.turck.com)

Operating/load voltage U_B/U_L	18...30 VDC
Internal current consumption (via U_B)	< 150 mA

Input circuits	(16) pnp 3-wire sensors/2-wire sensors
Input voltage (via U_B)	18...30 VDC
Input current	< 500 mA per 8 inputs, short-circuit protected
Switching threshold OFF/ON	2 mA / 4 mA
Input time delay	2.5 ms
Switching frequency	< 250 Hz
Potential isolation	to bus

Output circuits	(16) DC actuators
Output voltage (via U_L)	18...30 VDC
Output current	0.5 A per output, short-circuit protection
Switching frequency	< 250 Hz
Potential isolation	to bus

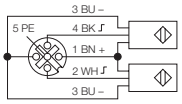
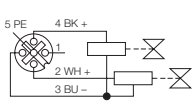
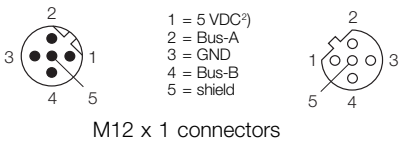
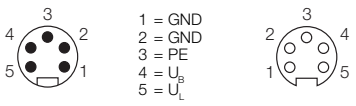
I/O data mapping

Abbreviations:

C1P4 connector 1, pin 4, (0 = OFF, 1 = ON)
SC common short-circuit indication of the inputs, I > 500 mA (0 = OK, 1= fault)
U_L U_L < 18 VDC
U_B U_B < 18 VDC

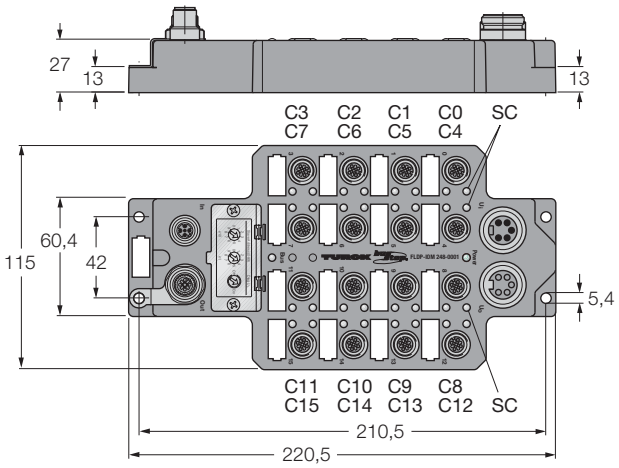
		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	C3P2	C3P4	C2P2	C2P4	C1P2	C1P4	C0P2	C0P4
	Byte 1	C7P2	C7P4	C6P2	C6P4	C5P2	C5P4	C4P2	C4P4
Output	**Byte 0**	C11P2	C11P4	C10P2	C10P4	C9P2	C9P4	C8P2	C8P4
	Byte 1	C15P2	C15P4	C14P2	C14P4	C13P2	C13P4	C12P2	C12P4
Diagnosis	**Byte 0**	–	–	–	–	–	U_B	U_L	SC

Wiring diagrams

Inputs	Outputs	Bus line[1])	Operating/load voltage
3 wire pnp sensor	DC actuator	Male / Female	Male / Female
			
M12 x 1 connectors		M12 x 1 connectors	7/8" connectors

[1]) Reverse-keyed according to PNO guidelines [2]) Female bus connector only

Compact fieldbus station FLDP-IOM 248-0001
24 inputs/8 outputs



- 12 x 2 inputs/
  4 x 2 outputs
  (max. 0.5 A per output)
  (inputs on left connector,
  outputs on right connector)
- Common short-circuit indication of inputs
- Load voltage diagnostics can be disabled via coded rotary switches
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 24

Type	FLDP-IOM248-0001
Ident-no.	6825333
Configuration file	TRCKFF17.gsd (downloadable via the internet under www.turck.com)

Operating/load voltage U_B/U_L	18...30 VDC
Internal current consumption (via U_B)	< 150 mA

Input circuits	(24) pnp 3-wire sensors/2-wire sensors
Input voltage (via U_B)	18...30 VDC
Input current	< 500 mA per 8 inputs, short-circuit protected
Switching threshold OFF/ON	2 mA / 4 mA
Input time delay	2.5 ms
Switching frequency	< 250 Hz
Potential isolation	to bus

Output circuits	(8) DC actuators
Output voltage (via U_L)	18...30 VDC
Output current	0.5 A per output, short-circuit protection
Switching frequency	< 250 Hz
Potential isolation	to bus

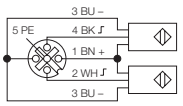
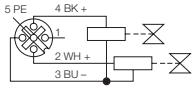
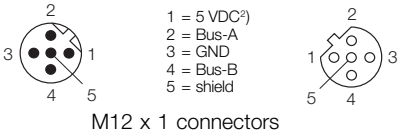
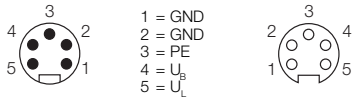
I/O data mapping

Abbreviations:

C1P4 connector 1, pin 4, (0 = OFF, 1 = ON)
SC common short-circuit indication of the inputs, I > 500 mA (0 = OK, 1= fault)
U_L U_L < 18 VDC
U_B U_B < 18 VDC

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	C3P2	C3P4	C2P2	C2P4	C1P2	C1P4	C0P2	C0P4
	Byte 1	C7P2	C7P4	C6P2	C6P4	C5P2	C5P4	C4P2	C4P4
	Byte 2	C11P2	C11P4	C10P2	C10P4	C9P2	C9P4	C8P2	C8P4
Output	**Byte 0**	C15P2	C15P4	C14P2	C14P4	C13P2	C13P4	C12P2	C12P4
Diagnosis	**Byte 0**	–	–	–	–	–	U_B	U_L	SC

Wiring diagrams

Inputs	Outputs	Bus line[1])	Operating/load voltage
3 wire pnp sensor	DC actuator	Male / Female	Male / Female
			
M12 x 1 connectors		M12 x 1 connectors	7/8" connectors

[1]) Reverse-keyed according to PNO guidelines [2]) Female bus connector only

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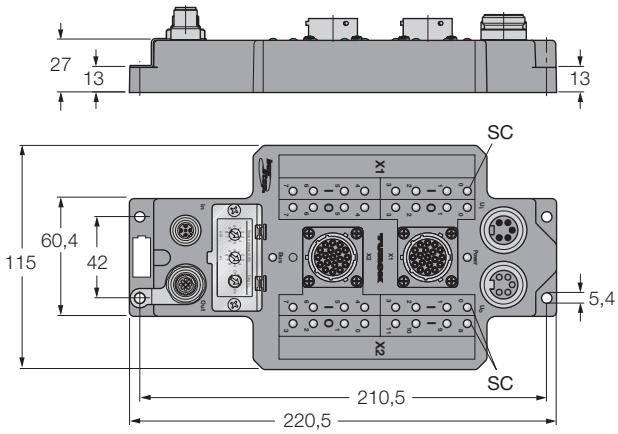
Compact fieldbus station FLDP-IOM2012-0001
20 inputs/12 outputs



- 20 inputs/
  12 outputs
  (max. 0.5 A per output)
- Common short-circuit indication of inputs
- Load voltage diagnostics can be disabled via coded rotary switches
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 24
  Further information:
  see page 38

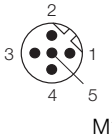
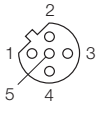
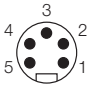
Type	FLDP-IOM2012-0001
Ident-no.	6825339
Operating / Load voltage U_B/U_L	18...30 VDC
Internal current consumption	< 150 mA
Input circuits	(20) pnp 3-wire sensors/2-wire sensors
Input voltage (via U_B)	18...30 VDC
Input current	< 500 mA per 8/12 inputs, short-circuit protected
Switching threshold OFF/ON	2 mA / 4 mA
Input time delay	2.5 ms
Switching frequency	< 250 Hz
Potential isolation	to bus
Output circuits	(12) DC actuators
Output voltage (via U_L)	18...30 VDC
Output current	0.5 A per output, short-circuit protection
Switching frequency	< 250 Hz
Potential isolation	to bus

I/O data mapping

Abbreviations/Designations:
X1I7, X1I6, ... (see table on next page)
SC common short-circuit indication of the inputs, I > 500 mA (0 = OK, 1= fault)
U_L U_L < 18 VDC
U_B U_B < 18 VDC

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	X1I7	X1I6	X1I5	X1I4	X1I3	X1I2	X1I1	X1I0
	Byte 1	X2I7	X2I6	X2I5	X2I4	X2I3	X2I2	X2I1	X2I0
	Byte 2	–	–	–	–	X2I11	X2I10	X2I9	X2I8
Output	**Byte 0**	X1O7	X1O6	X1O5	X1O4	X1O3	X1O2	X1O1	X1O0
	Byte 1	–	–	–	–	X2O3	X2O2	X2O1	X2O0
Diagnosis	**Byte 0**	–	–	–	–	–	U_B	U_L	SC

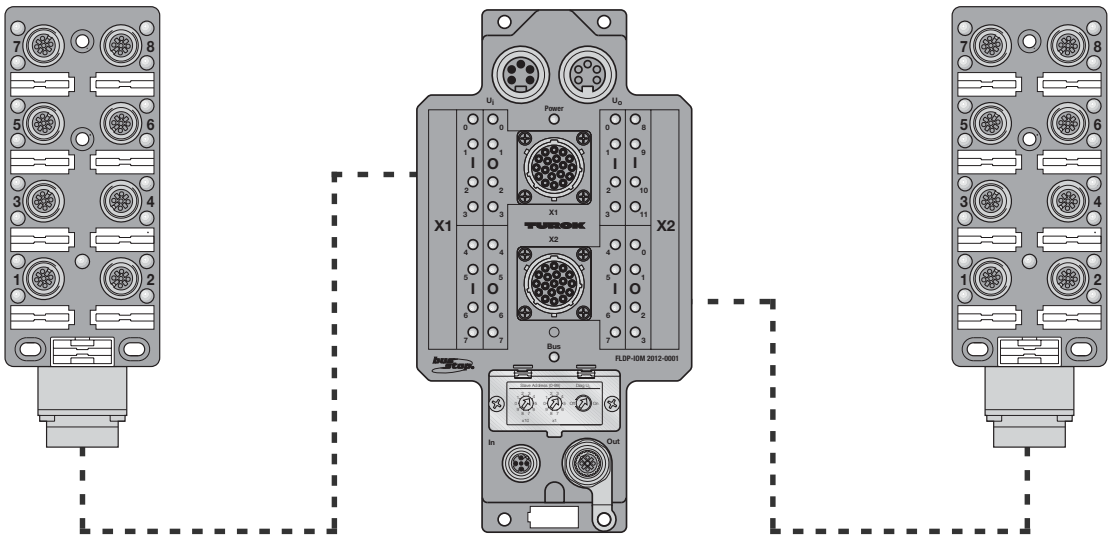
Wiring diagrams

Burndy connector	Bus line[1])	Operating/load voltage
	Male  1 = 5 VDC[2]) 2 = Bus-A 3 = GND 4 = Bus-B 5 = shield Female 	Male  1 = GND 2 = GND 3 = PE 4 = U_B 5 = U_L Female 
Female Burndy connector	M12 x 1 connectors	7/8" connectors

[1]) Reverse-keyed according to PNO guidelines [2]) Female bus connector only

Connection of input/output module FLDP-IOM2012 – junction 8FKS5P3

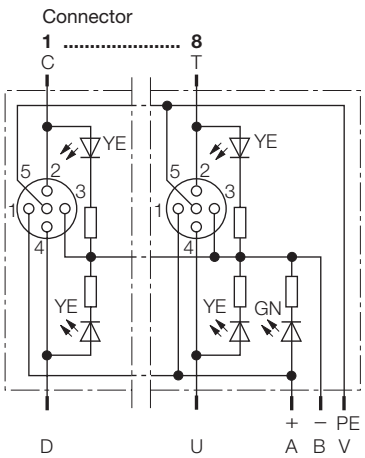
Passive junction 8FKS5P3 (X1) | **Input/output module FLDP-IOM2012** | **Passive junction 8FKS5P3 (X2)**



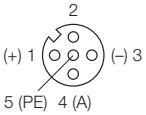
Connection: input/output module FLDP-IOM2012 – junction 8FKS5P3

Burndy	FLDP-IOM2012		8FKS5P3		Input/output bytes	
	X1	X2	X1	X2	X1	X2
A	+	+	+	+		
B	–	–	–	–		
S	I0	I0	S7/4	S7/4	I0.0	I1.0
R	I1	I1	S7/2	S7/2	I0.1	I1.1
M	I2	I2	S5/4	S5/4	I0.2	I1.2
L	I3	I3	S5/2	S5/2	I0.3	I1.3
H	I4	I4	S3/4	S3/4	I0.4	I1.4
G	I5	I5	S3/2	S3/2	I0.5	I1.5
D	I6	I6	S1/4	S1/4	I0.6	I1.6
C	I7	I7	S1/2	S1/2	I0.7	I1.7
U	O0	I8	S8/4	S8/4	O0.0	I2.0
T	O1	I9	S8/2	S8/2	O0.1	I2.1
P	O2	I10	S6/4	S6/4	O0.2	I2.2
N	O3	I11	S6/2	S6/2	O0.3	I2.3
K	O4	O0	S4/4	S4/4	O0.4	O1.0
J	O5	O1	S4/2	S4/2	O0.5	O1.1
F	O6	O2	S2/4	S2/4	O0.6	O1.2
E	O7	O3	S2/2	S2/2	O0.7	O1.3
V	PE	PE	PE	PE		

Block diagram/Pin configuraton Passive junction module 8FKS5P3



M12 x 1 connector



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Compact fieldbus stations for PROFIsafe - Series FSDP
General information

The fieldbus stations, series FSDP, allow direct connection to the PROFIBUS-DP. The station is designed for connection of SIL 2/3 parameterisable inputs and for safe control of outputs. SIL 2/SIL 3 (i.e. Safety Integrated Level) is a classification according to IEC/EN 61508, which defines the communication safety level and specifies that the devices connected via the PROFIBUS communicate so safely, that they are suited for safety-related applications.

Glass-fibre reinforced flat plastic housings and the fully encapsulated module electronics guarantee protection degree IP67. Therefore these stations are particularly suited for use in harsh industrial environments.

The station with the „PROFIsafe“ telegram supports transmission rates of up to 12 Mbps and adjusts automatically to the transmission speed determined by the master.

The station's address is set between 1... 99 via two coded rotary switches. The switches are located under a transparent protective cover. The F address, which is required by the system, is set via four rotary switches (1...9999).

General technical data

Characteristics	areas of application: safety-related systems; e. g.: emergency stop buttons, door limt switches
Adjustments	
PROFIBUS-DP address	1...99 (decimal) adjustable via two rotary switches
F address	1...9999 adjustable via 4 coded rotary switches, accessible under protective cover
Transmission rate	9.6 kbps up to 12 Mbps, automatic
LED indications	
Bus (dual colour LED)	green: communication, red: no communication, red flashing: shutdown after error
Power	green: operational, OFF: supply voltage outside admissible range
SIL 3 mode	green: module has been parameterised for SIL 3; OFF: module has been parameterised for SIL 2. green flashing: module parameterisation not yet concluded or F functions of module not active
Inputs	green: ON
Outputs	green: ON
Connections	
PROFIBUS	1 x male M12 connector (IN), 1 x female M12 connector (OUT), 5-pole, reverse-keyed
Power supply	1 x 7/8" male connector (IN), 1 x 7/8" female connector (OUT), 5-pole
Inputs/outputs	8 x M12 x 1 connectors
Housing	PA6-GF30, glass-fibre reinforced plastic housing with encapsulated electronics and nickel-plated brass connectors
Mounting	via 4 through-holes, Ø 5,4mm
Degree of protection (IEC 60529/EN 60529)	IP67 (NEMA 1, 3, 4, 12, 13)
Vibration and shock testing	according to EN 60068-2-6/2-27
Temperature range	-25 °C to +55 °C (-13 °F to +131 °F)
Dimensions	220.5 x 115 x 27 (H x W x D)

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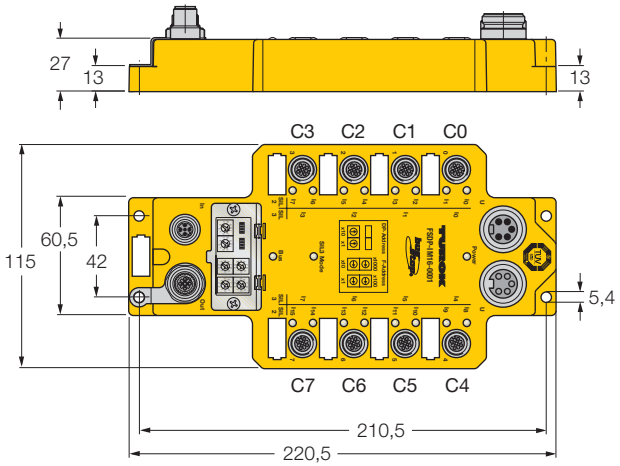
Compact fieldbus station FSDP-IM16-0001
16 inputs



- 16 inputs SIL 2/
  8 inputs SIL 3
- Failsafe PROFIsafe station
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 40

2

Type	FSDP-IM16-0001
Ident-no.	6825360
Configuration file	TRCKFF33.gsd (downloadable via the internet under www.turck.com)

Operating voltage U_B	20...28 VDC
Internal current consumption (via U_B)	< 200 mA

Input circuits	(16) mechanical contacts SIL 2, operating in the normally closed mode (8) mechanical contacts SIL 3, operating in the normally closed mode
Input voltage	24 VDC
Input current	< 10 mA, short-circuit protection
Switching threshold OFF/ON	2 mA / 8 mA
Switching frequency	10 Hz
Galvanic isolation	to bus

Approvals	IEC/EN 61508-SIL 3 EN 954-1, CAT 4 TÜV certificate no. Z10040653279001

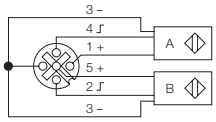
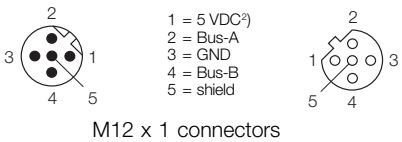
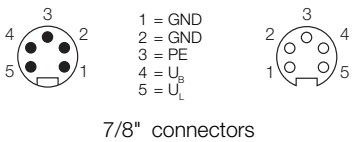
I/O data mapping

Abbreviations/Designations:
SIL 3
C0 connector 0
(0 = OFF, 1 = ON)
Note: SIL 3 requires per channel pin 2 and pin 4
SIL 2
C1P4 connector 1, pin 4
(0 = OFF, 1 = ON)

SIL 3		**Bit 7**	**Bit 6**	**Bit 5**	**Bit 4**	**Bit 3**	**Bit 2**	**Bit 1**	**Bit 0**
Input	**Byte 0**	C7	C6	C5	C4	C3	C2	C1	C0
	Byte 1	–	–	–	–	–	–	–	–
SIL 2		**Bit 7**	**Bit 6**	**Bit 5**	**Bit 4**	**Bit 3**	**Bit 2**	**Bit 1**	**Bit 0**
Input	**Byte 0**	C3P2	C3P4	C2P2	C2P4	C1P2	C1P4	C0P2	C0P4
	Byte 1	C7P2	C7P4	C6P2	C6P4	C5P2	C5P4	C4P2	C4P4

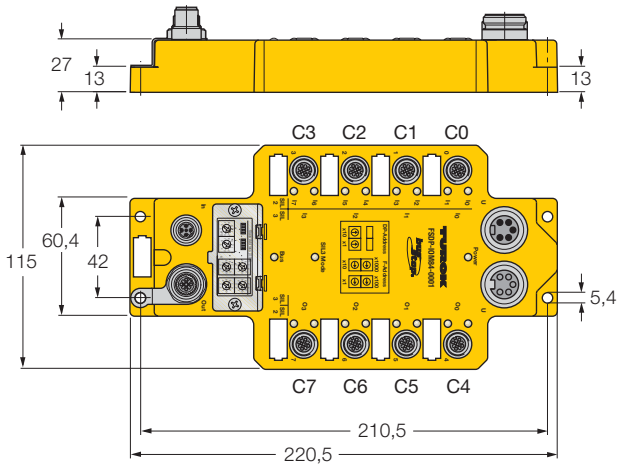
Further data including diagnostics details are contained in our manual "IP67 modules for safety-related application“ D300772.

Wiring diagrams

Inputs	Bus line[1])	Operating voltage
Mechanical contacts	Male / Female	Male / Female
		
	1 = 5 VDC[2]) 2 = Bus-A 3 = GND 4 = Bus-B 5 = shield	1 = GND 2 = GND 3 = PE 4 = U_S 5 = U_L
	M12 x 1 connectors	7/8" connectors

[1]) Reverse-keyed according to PNO guidelines [2]) Female bus connector only

Compact fieldbus station FSDP-IOM84-0001
8 inputs/4 outputs



- 8 inputs SIL2/
  4 inputs SIL 3/
  4 outputs (max. 2 A per output)
- Failsafe PROFIsafe station
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 39

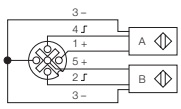
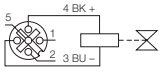
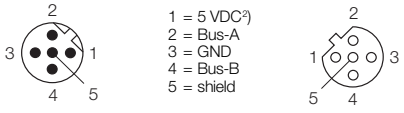
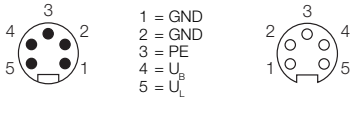
Type	FSDP-IOM84-0001
Ident-no.	6825361
Configuration file	TRCKFF31.gsd (downloadable via the internet under www.turck.com)
Operating voltage U_B/U_L	20...28 VDC
Internal current consumption (via U_B)	< 200 mA
Input circuits	(8) mechanical contacts SIL 2, operating in the normally closed mode (4) mechanical contacts SIL 3, operating in the normally closed mode
Input voltage	24 VDC
Input current	< 10 mA, short-circuit protection
Switching threshold OFF/ON	2 mA / 8 mA
Switching frequency	10 Hz
Galvanic isolation	to bus
Output circuits	(4) DC actuators
Output voltage (via U_L)	18...30 VDC
Output current	2 A per output, short-circuit protection
Switching frequency	50 Hz (with ohmic load)
Galvanic isolation	to bus
Approvals (pending)	IEC/EN 61508-SIL 3 EN 954-1, CAT 4

I/O data mapping

Abbreviations/Designations:
SIL3
C0 connector 0
(0 = OFF, 1 = ON)
Note: SIL3 requires per channel pin 2 and pin 4
SIL2
C1P4 connector 1, pin 4
(0 = OFF, 1 = ON)

SIL 3		**Bit 7**	**Bit 6**	**Bit 5**	**Bit 4**	**Bit 3**	**Bit 2**	**Bit 1**	**Bit 0**
Input	**Byte 0**	–	–	–	–	C3	C2	C1	C0
Output	**Byte 0**	–	–	–	–	C7P4	C6P4	C5P4	C4P4
SIL 2		**Bit 7**	**Bit 6**	**Bit 5**	**Bit 4**	**Bit 3**	**Bit 2**	**Bit 1**	**Bit 0**
Input	**Byte 0**	C3P2	C3P4	C2P2	C2P4	C1P2	C1P4	C0P2	C0P4
Output	**Byte 0**	–	–	–	–	C7P4	C6P4	C5P4	C4P4

Wiring diagrams

Inputs	**Outputs**	**Bus line[1])**	**Operating/load voltage**
Mechanical contacts	DC actuator	Male / Female	Male / Female
		 1 = 5 VDC[2]) 2 = Bus-A 3 = GND 4 = Bus-B 5 = shield M12 x 1 connectors	 1 = GND 2 = GND 3 = PE 4 = U_B 5 = U_L 7/8" connectors

[1]) Reverse-keyed according to PNO guidelines [2]) Female bus connector only

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Compact fieldbus stations - device overview

Housing version 1

Series FDNL
Compact flat housing with up to 16 channels, common diagnostics (series SE) or channel diagnostics (series LX)

Housing version 2

Series FDNP
Compact flat housing with up to 16 channels, connection for actuator supply, common diagnostics (series SE) or channel diagnostics (series LX)

Type	Ident-no.	Housing version	Number of inputs	Number of outputs	Number of inputs/outputs per connector	npn/pnp sensor connectable	Max. load current [A]	Power supply concept of outputs	Data sheets see page
FDN... stations LX series – channel diagnostics (separate short-circuit and wire-break diagnostics of inputs and outputs)									
FDNL-L0800-T	6603335	1	8	–	1/–	npn/pnp	–	–	46
FDNL-L1600-T	6602335	1	16	–	2/–	npn/pnp	–	–	47
FDNP-CPG88-TT	6603324	2	8	8	1/1	pnp	0.5	Aux	48
FDNP-L0404G-TT	6603327	2	4	4	1/1	npn/pnp	0.5	Aux	49
FDNP-L0808G-TT	6602389	2	8	8	2/2	npn/pnp	0.5	Aux	50
FDNP-P1204G-TT	6602672	2	12	4	2/2	pnp	0.5	Aux	51
FDNP-P0808H-TT	6603329	2	8	8	2/2	pnp	2	Aux	52
FDNP-L0808H-TT	6603328	2	8	8	2/2	npn/pnp	2	Aux	53
FDN... stations SE series – channel diagnostics (common short-circuit diagnostics of inputs and outputs)									
FDNL-S0800-T	6603336	1	8	–	1/–	pnp	–	–	54
FDNL-N0800-T	6603671	1	8	–	1/–	npn	–	–	55
FDNL-S1600-T	6603316	1	16	–	2/–	pnp	–	–	56
FDNL-N1600-T	6603672	1	16	–	2/–	npn	–	–	57
FDNL-CSG88-T	6603351	1	8	8	1/1	pnp	0,5	bus	58
FDNP-S0404G-TT	6603331	2	4	4	1/1	pnp	0,5	Aux	59
FDNP-S0808G-TT	6603348	2	8	8	2/2	pnp	0,5	Aux	60
FDNP-XSG16-TT	6603323	2	16 configurable channels			pnp	0,5	Aux	61
FDNP-S0008G-TT	6603673	2	–	8	–/1	–	0,5	Aux	62
FDNP-S0008H-TT	6603674	2	–	8	–/1	–	1,4	Aux	63

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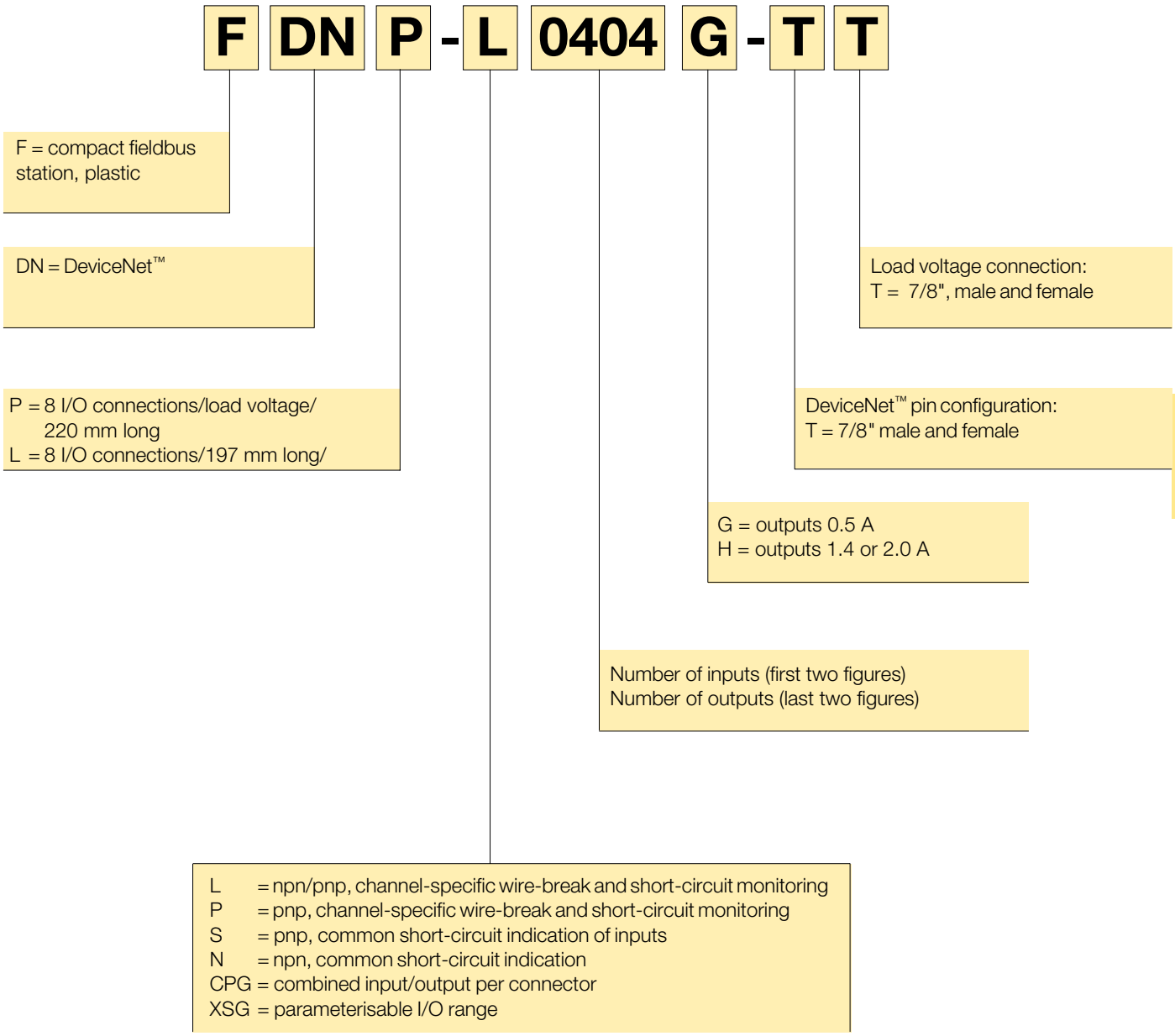
Compact fieldbus stations - type code



Compact fieldbus stations - Series FDN...
General information

The fieldbus stations, series FDN, allow direct connection of up to 16 inputs/ outputs to DeviceNet™.

Glass-fibre reinforced plastic housings and the fully encapsulated module electronics guarantee protection degree IP67. Therefore these stations are particularly suited for use in harsh industrial environments.

The stations support transmission rates of up to 500 kbps. The station's address and communication rate can be set either via hardware or software (DeviceNet™ configuration tool).

Hardware adjustments are established with rotary switches; but please note that a software or voltage reset is required to adopt the settings.

FDN type fieldbus stations support all DeviceNet™ communication modes, incl. "Poll", "Strobe", "Cyclic", "Change of State (COS)" and "UCMM".

The comprehensive diagnostic functions comprise individual or common short-circuit or wire-break indication; the deluxe version (LX) provides channel-specific short-circuit and wire-break diagnostics, whereas the standard version (SE) features common short-circuit diagnostics of the inputs and outputs.

General technical data

Characteristics	
– Deluxe version (LX):	channel-specific short-circuit and wire-break diagnostics of inputs and outputs
– Standard version (SE):	common short-circuit diagnostics of inputs and outputs
Adjustments	
DeviceNet™ address	0...63 (decimal) adjustable via two coded rotary switches
Transmission rate	automatic
LED indications	
Inputs	green: ON
Outputs	green: ON
Errors (dual colour LED- deluxe version only)	yellow: wire-break, red: short-circuit
Module status (dual colour LED)	green: operational – green flashing: detection of the baud rate, red flashing: I/O short-circuit
Network status (dual colour LED)	green: communication, green flashing: ready to establish communication red: communication failed, red flashing: communication time-out
Connections	nickel-plated brass connectors
DeviceNet™	7/8" connector, 5-pole; IN and OUT
With FDNP stations: aux power	7/8" connector, 4-pole; IN and OUT
Inputs/outputs	female M12 x 1 connectors; 5-pole
Housing	PA6-GF30, glass-fibre reinforced plastic housing with encapsulated electronics and nickel-plated brass connectors
Mounting	via 4 through-holes, Ø 5,4mm
Degree of protection	IP67 (NEMA 1, 3, 4, 12, 13)
Temperature range	
– Deluxe version (LX)	-25 °C to +70 °C (-13 °F to +158 °F)
– Standard version (SE):	-40 °C to +70 °C (-40 °F to +158 °F)
Dimensions	
– FDNL stations	197 x 60 x 27 (H x W x D)
– FDNP stations	220 x 60 x 27 (H x W x D)
Approvals	CE, UL, CSA

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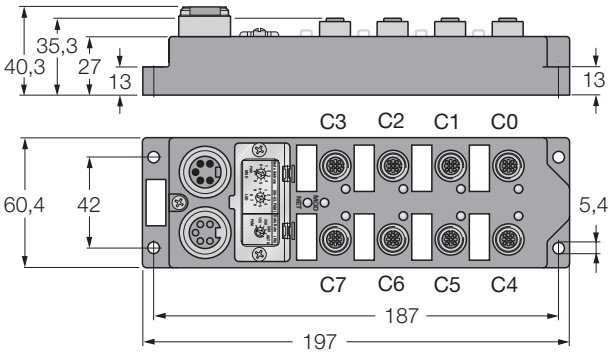
Compact fieldbus station FDNL-L0800-T
16 inputs



- 8 x 1 inputs, npn/pnp
- Channel-specific diagnostics
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
see page 46

3

Type	FDNL-L0800-T
Ident-no.	6603335
Operating voltage U_B	11...26 VDC
Internal current consumption (via U_B)	< 100 mA (plus the sum of sensor currents)
Input circuits	(8) 3-wire npn/pnp sensors or mechanical contacts
Input voltage (via U_B)	11...26 VDC
Input current	< 80 mA per input, short-circuit protected
Switching threshold OFF/ON	2 mA / 3...3.4 mA at 24 VDC
Input time delay	2.5 ms
Switching frequency	< 100 Hz
Potential isolation	to bus

I/O data mapping

Abbreviations:

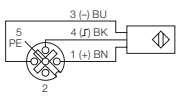
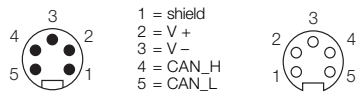
C1P4 connector 1, pin 4 (0 = OFF, 1 = ON)

ISS input short-circuit status

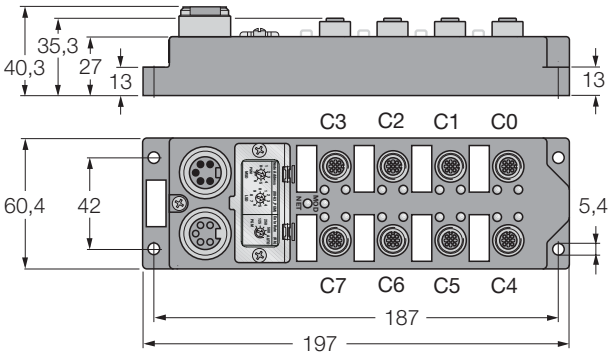
IOS input wire-break status (0 = OK, 1= fault)

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	C7P4	C6P4	C5P4	C4P4	C3P4	C2P4	C1P4	C0P4
	Byte 1	ISS-7	ISS-6	ISS-5	ISS-4	ISS-3	ISS-2	ISS-1	ISS-0
	Byte 2	IOS-7	IOS-6	IOS-5	IOS-4	IOS-3	IOS-2	IOS-1	IOS-0

Wiring diagrams

Inputs	Operating voltage/bus line	
3-wire npn/pnp sensor	Male / Female	
		
M12 x 1 connectors	7/8" connectors	

Compact fieldbus station FDNL-L1600-T
16 inputs



- 8 x 2 inputs, npn/pnp
- Channel-specific diagnostics
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 46

Type	FDNL-L1600-T
Ident-no.	6602335
Operating voltage U_B	11...26 VDC
Internal current consumption (via U_B)	< 140 mA (plus the sum of sensor currents)
Input circuits	(16) 3-wire npn/pnp sensors or mechanical contacts
Input voltage (via U_B)	11...26 VDC
Input current	< 80 mA per input, short-circuit protected
Switching threshold OFF/ON	2 mA / 3...3.4 mA at 24 VDC
Input time delay	2.5 ms
Switching frequency	< 100 Hz
Potential isolation	to bus

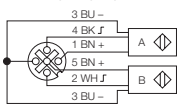
I/O data mapping

Abbreviations:

C1P4 connector 1, pin 4 (0 = OFF, 1 = ON)
ISS input short-circuit status
IOS input wire-break status (0 = OK, 1= fault)

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	C3P2	C3P4	C2P2	C2P4	C1P2	C1P4	C0P2	C0P4
	Byte 1	C7P2	C7P4	C6P2	C6P4	C5P2	C5P4	C4P2	C4P4
	Byte 2	ISS-7	ISS-6	ISS-5	ISS-4	ISS-3	ISS-2	ISS-1	ISS-0
	Byte 3	ISS-15	ISS-14	ISS-13	ISS-12	ISS-11	ISS-10	ISS-9	ISS-8
	Byte 4	IOS-7	IOS-6	IOS-5	IOS-4	IOS-3	IOS-2	IOS-1	IOS-0
	Byte 5	IOS-15	IOS-14	IOS-13	IOS-12	IOS-11	IOS-10	IOS-9	IOS-8

Wiring diagrams

Inputs	Operating voltage/bus line	
3-wire npn/pnp sensor  M12 x 1 connectors	Male  1 = shield 2 = V + 3 = V – 4 = CAN_H 5 = CAN_L Female  7/8" connectors	

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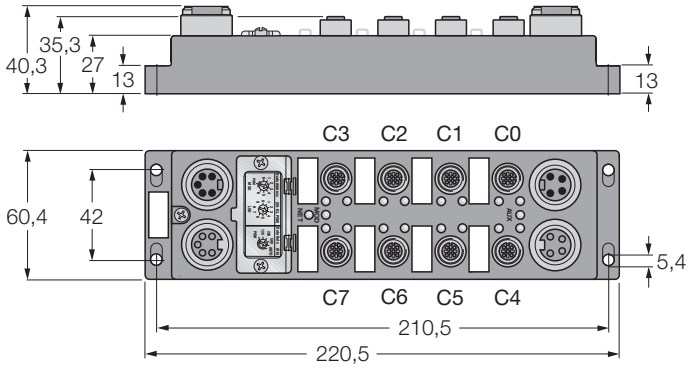
Compact fieldbus station FDNP-CPG88-TT
8 inputs/8 outputs



- 8 x 1 inputs, pnp
  8 x 1 outputs
  (max. 0.5 A per output)
- Auxiliary power/load supply
- Channel-specific diagnostics
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 46

3

Type	FDNP-CPG88-TT
Ident-no.	6603324
Operating voltage U_B	11...26 VDC
Internal current consumption (via U_B)	< 140 mA (plus the sum of sensor currents)
Auxiliary power U_L	18...26 VDC
Input circuits	(8) 3-wire pnp sensors or mechanical contacts
Input voltage (via U_B)	11...26 VDC
Input current	< 120 mA per input, short-circuit protected
Switching threshold OFF/ON	2 mA / 3...3.4 mA at 24 VDC
Input time delay	2.5 ms
Switching frequency	< 100 Hz
Potential isolation	to bus
Output circuits	(8) DC actuators
Output voltage (via U_L)	18...26 VDC
Output current	0.5 A per output, short-circuit protection
Switching frequency	< 100 Hz
Potential isolation	to bus

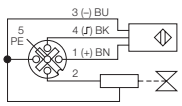
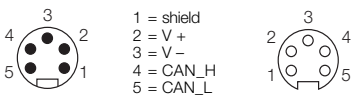
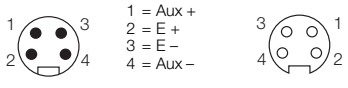
I/O data mapping

Abbreviations:

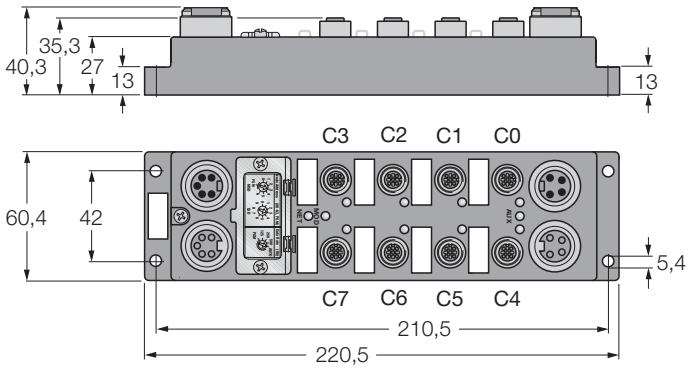
C1P4 connector 1, pin 4
APS auxiliary power status (0 = OFF, 1 = ON)
ISS input short-circuit status
IOS input wire-break status
OS output status (0 = OK, 1= fault)

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	C7P4	C6P4	C5P4	C4P4	C3P4	C2P4	C1P4	C0P4
	Byte 1	ISS-7	ISS-6	ISS-5	ISS-4	ISS-3	ISS-2	ISS-1	ISS-0
	Byte 2	IOS-7	IOS-6	IOS-5	IOS-4	IOS-3	IOS-2	IOS-1	IOS-0
	Byte 3	OS-7	OS-6	OS-5	OS-4	OS-3	OS-2	OS-1	OS-0
	Byte 4	–	APS	–	–	–	–	–	–
Output	**Byte 0**	C7P2	C6P2	C5P2	C4P2	C3P2	C2P2	C1P2	C0P2

Wiring diagrams

Inputs/outputs	Operating voltage/bus line	Auxiliary power/load supply
3 wire pnp sensors/DC actuator  M12 x 1 connectors	Male / Female  7/8" connectors	Male / Female  7/8" connectors

Compact fieldbus station FDNP-L0404G-TT
4 inputs/4 outputs



- 4 x 1 inputs, npn/pnp
  4 x 1 outputs
  (max. 0.5 A per output)
- Auxiliary power/load supply
- Channel-specific diagnostics
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 46

Type	FDNP-L0404G-TT
Ident-no.	6603327
Operating voltage U_B	11...26 VDC
Internal current consumption (via U_B)	< 140 mA (plus the sum of sensor currents)
Auxiliary power U_L	18...26 VDC
Input circuits	(4) 3-wire npn/pnp sensors or mechanical contacts
Input voltage (via U_B)	11...26 VDC
Input current	< 80 mA per input, short-circuit protected
Switching threshold OFF/ON	2 mA / 3...3.4 mA at 24 VDC
Input time delay	2.5 ms
Switching frequency	< 100 Hz
Potential isolation	to bus
Output circuits	(4) DC actuators
Output voltage (via U_L)	18...26 VDC
Output current	0.5 A per output, short-circuit protection
Switching frequency	< 100 Hz
Potential isolation	to bus

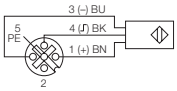
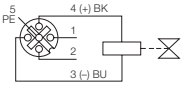
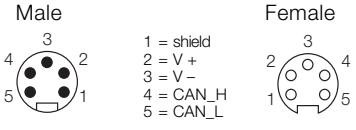
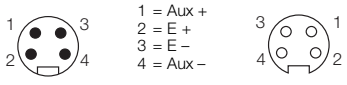
I/O data mapping

Abbreviations:

C1P4	connector 1, pin 4
APS	auxiliary power status (0 = OFF, 1 = ON)
ISS	input short-circuit status
IOS	input wire-break status
OOS	output wire-break status
OSS	output short-circuit status (0 = OK, 1= fault)

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	–	–	–	–	C3P4	C2P4	C1P4	C0P4
	Byte 1	IOS-3	IOS-2	IOS-1	IOS-0	ISS-3	ISS-2	ISS-1	ISS-0
	Byte 2	OOS-3	OOS-2	OOS-1	OOS-0	OSS-3	OSS-2	OSS-1	OSS-0
	Byte 3	–	APS	–	–	–	–	–	–
Output	**Byte 0**	–	–	–	–	C7P4	C4P4	C5P4	C4P4

Wiring diagrams

Inputs	Outputs	Operating voltage/bus line	Auxiliary power/load supply
3-wire npn/pnp sensor	DC actuator	Male / Female	Male / Female
		 1 = shield 2 = V + 3 = V – 4 = CAN_H 5 = CAN_L	 1 = Aux + 2 = E + 3 = E – 4 = Aux –
M12 x 1 connectors		7/8" connectors	7/8" connectors

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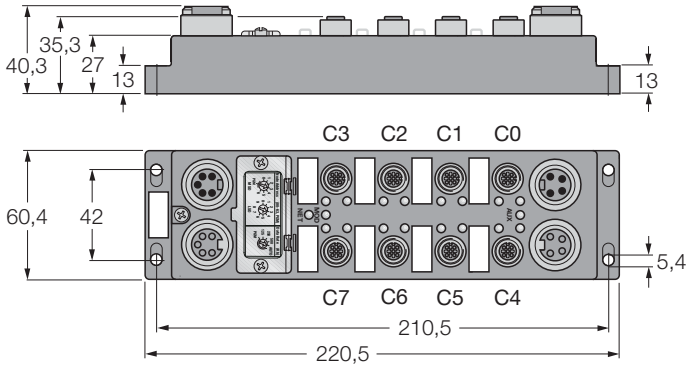
Compact fieldbus station FDNP-L0808G-TT
8 inputs/8 outputs



- 4 x 2 inputs, npn/pnp
  4 x 2 outputs
  (max. 0.5 A per output)
- Auxiliary power/load supply
- Channel-specific diagnostics
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 46

3

Type	FDNP-L0808G-TT
Ident-no.	6602389
Operating voltage U_B	11...26 VDC
Internal current consumption (via U_B)	< 100 mA (plus the sum of sensor currents)
Auxiliary power U_L	18...26 VDC
Input circuits	(8) 3-wire npn/pnp sensors or mechanical contacts
Input voltage (via U_B)	11...26 VDC
Input current	< 80 mA per input, short-circuit protected
Switching threshold OFF/ON	2 mA / 3...3.4 mA at 24 VDC
Input time delay	2.5 ms
Switching frequency	< 100 Hz
Potential isolation	to bus
Output circuits	(8) DC actuators
Output voltage (via U_L)	18...26 VDC
Output current	0.5 A per output, short-circuit protection
Switching frequency	< 100 Hz
Potential isolation	to bus

I/O data mapping

Abbreviations:

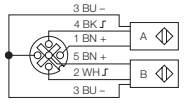
C1P4 connector 1, pin 4
APS auxiliary power status (0 = OFF, 1 = ON)
ISS input short-circuit status
IOS input wire-break status
OS output status (0 = OK, 1= fault)

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	C7P4	C6P4	C5P4	C4P4	C3P4	C2P4	C1P4	C0P4
	Byte 1	ISS-7	ISS-6	ISS-5	ISS-4	ISS-3	ISS-2	ISS-1	ISS-0
	Byte 2	IOS-7	IOS-6	IOS-5	IOS-4	IOS-3	IOS-2	IOS-1	IOS-0
	Byte 3	OS-7	OS-6	OS-5	OS-4	OS-3	OS-2	OS-1	OS-0
	Byte 4	–	APS	–	–	–	–	–	–
Output	**Byte 0**	C7P2	C6P2	C5P2	C4P2	C3P2	C2P2	C1P2	C0P2

Wiring diagrams

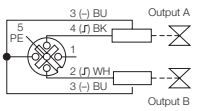
Inputs

3-wire npn/pnp sensor



Outputs

DC actuator



M12 x 1 connectors

Operating voltage/bus line

Male

1 = shield
2 = V +
3 = V –
4 = CAN_H
5 = CAN_L

Female

7/8" connectors

Auxiliary power/load supply

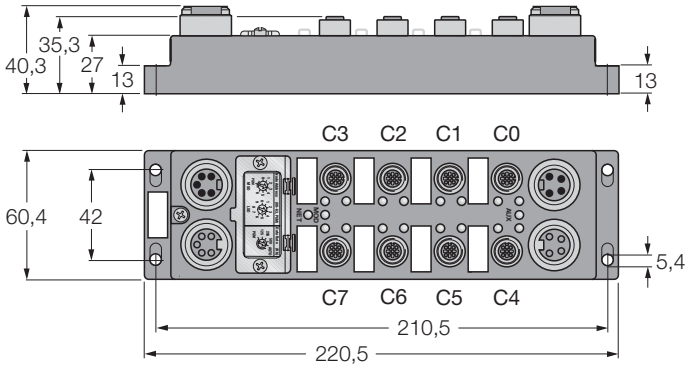
Male

1 = Aux +
2 = E +
3 = E –
4 = Aux –

Female

7/8" connectors

Compact fieldbus station FDNP-P1204G-TT
12 inputs/4 outputs



- 6 x 2 inputs, pnp
  4 x 1 outputs
  (max. 0.5 A per output)
- Auxiliary power/load supply
- Channel-specific diagnostics
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 46

Type	FDNP-P1204G-TT
Ident-no.	6602672
Operating voltage U_B	11...26 VDC
Internal current consumption (via U_B)	< 100 mA (plus the sum of sensor currents)
Auxiliary power U_L	18...26 VDC
Input circuits	(12) 3-wire pnp sensors or mechanical contacts
Input voltage (via U_B)	11...26 VDC
Input current	< 80 mA per input, short-circuit protected
Switching threshold OFF/ON	2 mA / 3...3.4 mA at 24 VDC
Input time delay	2.5 ms
Switching frequency	< 100 Hz
Potential isolation	to bus
Output circuits	(4) DC actuators
Output voltage (via U_L)	18...26 VDC
Output current	0.5 A per output, short-circuit protection
Switching frequency	< 100 Hz
Potential isolation	to bus

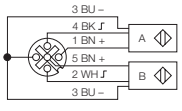
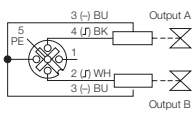
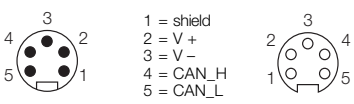
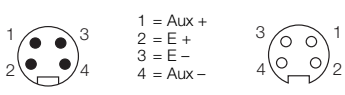
I/O data mapping

Abbreviations:

C1P4	connector 1, pin 4
APS	auxiliary power status (0 = OFF, 1 = ON)
ISS	input short-circuit status
IOS	input wire-break status
OOS	output wire-break status
OSS	output short-circuit status (0 = OK, 1= fault)

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	C5P2	C5P4	C3P2	C3P4	C2P2	C2P4	C1P2	C1P4
	Byte 1	–	APS	–	–	C7P2	C7P4	C6P2	C6P4
	Byte 2	ISS-7	ISS-6	ISS-5	ISS-4	ISS-3	ISS-2	ISS-1	ISS-0
	Byte 3	OSS-3	OSS-2	OSS-1	OSS-0	ISS-11	ISS-10	ISS-9	ISS-8
	Byte 4	IOS-7	IOS-6	IOS-5	IOS-4	IOS-3	IOS-2	IOS-1	IOS-0
	Byte 5	OOS-3	OOS-2	OOS-1	OOS-0	IOS-11	IOS-10	IOS-9	IOS-8
Output	**Byte 0**	–	–	–	–	C4P2	C4P4	C0P2	C0P4

Wiring diagrams

Inputs	Outputs	Operating voltage/bus line	Auxiliary power/load supply
3-wire pnp sensor	DC actuator	Male / Female	Male / Female
			
M12 x 1 connectors		7/8" connectors	7/8" connectors

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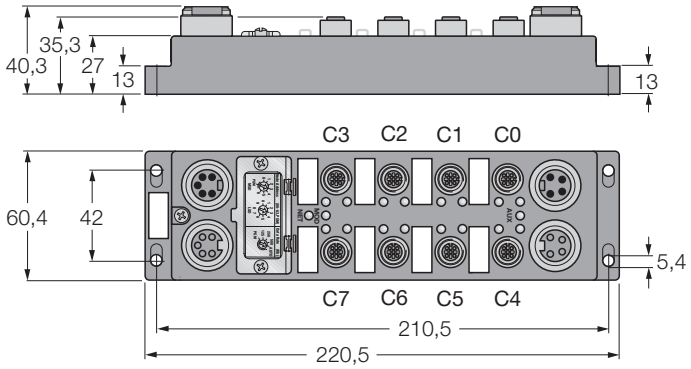
Compact fieldbus station FDNP-P0808H-TT
8 inputs/8 outputs



- 4 x 2 inputs, pnp
  4 x 2 outputs
  (max. 2 A per output)
- Auxiliary power/load supply
- Channel-specific diagnostics
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 46

3

Type	FDNP-P0808H-TT
Ident-no.	6603329
Operating voltage U_B	11...26 VDC
Internal current consumption (via U_B)	< 100 mA (plus the sum of sensor currents)
Auxiliary power U_L	18...26 VDC
Input circuits	(8) 3-wire pnp sensors or mechanical contacts
Input voltage (via U_B)	11...26 VDC
Input current	< 80 mA per input, short-circuit protected
Switching threshold OFF/ON	2 mA / 3...3.4 mA at 24 VDC
Input time delay	2.5 ms
Switching frequency	< 100 Hz
Potential isolation	to bus
Output circuits	(8) DC actuators
Output voltage (via U_L)	18...26 VDC
Output current	2 A per output (8 A total current), short-circuit protection
Switching frequency	< 100 Hz
Potential isolation	to bus

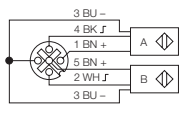
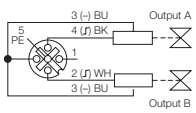
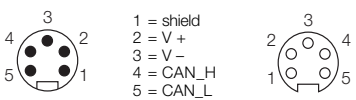
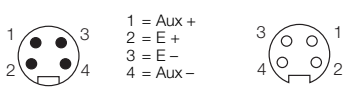
I/O data mapping

Abbreviations:

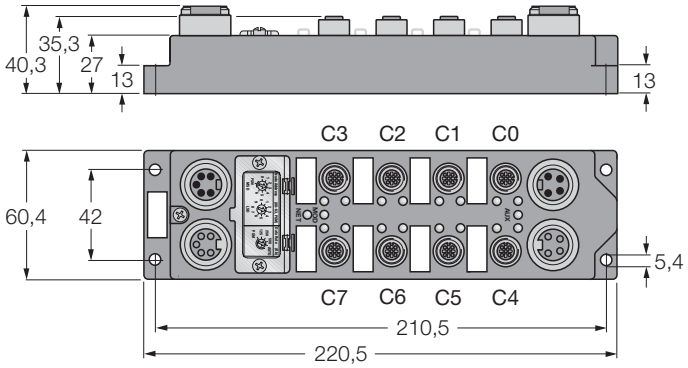
C1P4 connector 1, pin 4
APS auxiliary power status
(0 = OFF, 1 = ON)
ISS input short-circuit status
IOS input wire-break status
OS output status
(0 = OK, 1= fault)

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	C7P4	C6P4	C5P4	C4P4	C3P4	C2P4	C1P4	C0P4
	Byte 1	ISS-7	ISS-6	ISS-5	ISS-4	ISS-3	ISS-2	ISS-1	ISS-0
	Byte 2	IOS-7	IOS-6	IOS-5	IOS-4	IOS-3	IOS-2	IOS-1	IOS-0
	Byte 3	OS-7	OS-6	OS-5	OS-4	OS-3	OS-2	OS-1	OS-0
	Byte 4	–	APS	–	–	–	–	–	–
Output	**Byte 0**	C7P2	C6P2	C5P2	C4P2	C3P2	C2P2	C1P2	C0P2

Wiring diagrams

Inputs	outputs	Operating voltage/bus line	Auxiliary power/load supply
3-wire pnp sensor	DC actuator	Male / Female	Male / Female
			
M12 x 1 connectors		7/8" connectors	7/8" connectors

Compact fieldbus station FDNP-L0808H-TT
8 inputs/8 outputs



- 4 x 2 inputs, npn/pnp
  4 x 2 outputs
  (max. 2 A per output)
- Auxiliary power/load supply
- Channel-specific diagnostics
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 46

Type	FDNP-L0808H-TT
Ident-no.	6603328
Operating voltage U_B	11...26 VDC
Internal current consumption (via U_B)	< 100 mA (plus the sum of sensor currents)
Auxiliary power U_L	18...26 VDC
Input circuits	(8) 3-wire npn/pnp sensors or mechanical contacts
Input voltage (via U_B)	11...26 VDC
Input current	< 80 mA per input, short-circuit protected
Switching threshold OFF/ON	2 mA / 3...3.4 mA at 24 VDC
Input time delay	2.5 ms
Switching frequency	< 100 Hz
Potential isolation	to bus
Output circuits	(8) DC actuators
Output voltage (via U_L)	18...26 VDC
Output current	2 A per output (8 A total current), short-circuit protection
Switching frequency	< 100 Hz
Potential isolation	to bus

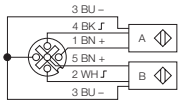
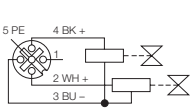
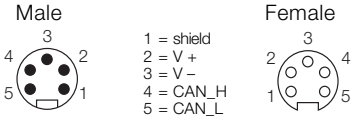
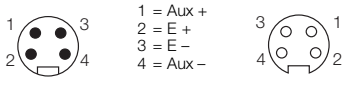
I/O data mapping

Abbreviations:

C1P4	connector 1, pin 4
APS	auxiliary power status (0 = OFF, 1 = ON)
ISS	input short-circuit status
IOS	input wire-break status
OS	output status (0 = OK, 1= fault)

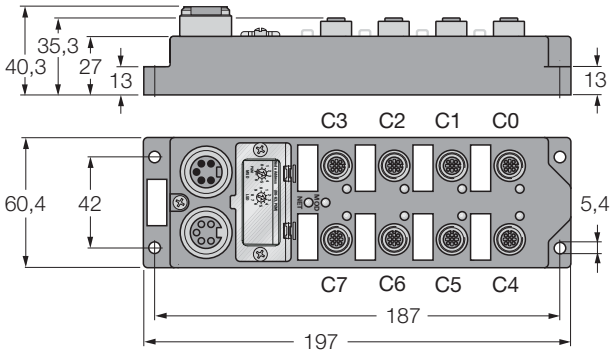
		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	C7P4	C6P4	C5P4	C4P4	C3P4	C2P4	C1P4	C0P4
	Byte 1	ISS-7	ISS-6	ISS-5	ISS-4	ISS-3	ISS-2	ISS-1	ISS-0
	Byte 2	IOS-7	IOS-6	IOS-5	IOS-4	IOS-3	IOS-2	IOS-1	IOS-0
	Byte 3	OS-7	OS-6	OS-5	OS-4	OS-3	OS-2	OS-1	OS-0
	Byte 4	–	APS	–	–	–	–	–	–
Output	**Byte 0**	C7P2	C6P2	C5P2	C4P2	C3P2	C2P2	C1P2	C0P2

Wiring diagrams

Inputs	Outputs	Operating voltage/bus line	Auxiliary power/load supply
3-wire npn/pnp sensor	DC actuator	Male / Female	Male / Female
			
M12 x 1 connectors		7/8" connectors	7/8" connectors

Hans Turck GmbH & Co.KG • D–45466 Mülheim/Ruhr • Tel. 0208/4952-0 • Fax 0208/4952-264 • E-Mail: turckmh@mail.turck-globe.de • www.turck.com

Compact fieldbus station FDNL-S0800-T
8 inputs



- 8 x 1 inputs, pnp
- Common diagnostics
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 46

Type	FDNL-S0800-T
Ident-no.	6603336
Operating voltage U_B	11...26 VDC
Internal current consumption (via U_B)	< 50 mA (plus the sum of sensor currents)
Input circuits	(8) 3-wire pnp sensors or mechanical contacts
Input voltage (via U_B)	13...26 VDC
Input current	< 700 mA, short-circuit protection
Switching threshold OFF/ON	2 mA / 3...3.4 mA at 24 VDC
Input time delay	2.5 ms
Switching frequency	< 100 Hz
Potential isolation	to bus

I/O data mapping

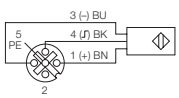
Abbreviations:

C1P4 connector 1, pin 4 (0 = OFF, 1 = ON)

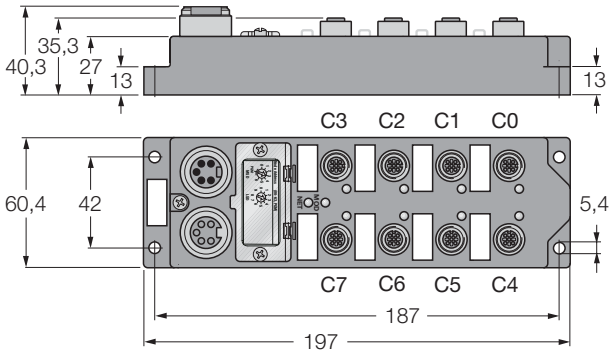
IGS common input status (0 = OK, 1= fault)

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	C7P4	C6P4	C5P4	C4P4	C3P4	C2P4	C1P4	C0P4
	Byte 1	IGS	–	–	–	–	–	–	–

Wiring diagrams

Inputs	Operating voltage/bus line	
3-wire pnp sensor  M12 x 1 connectors	Male  1 = shield 2 = V + 3 = V – 4 = CAN_H 5 = CAN_L Female  7/8" connectors	

Compact fieldbus station FDNL-N0800-T
8 inputs



- 8 x 1 inputs, npn
- Common diagnostics
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 46

Type	FDNL-N0800-T
Ident-no.	6603671
Operating voltage U_B	11...26 VDC
Internal current consumption (via U_B)	< 50 mA (plus the sum of sensor currents)
Input circuits	(8) 3-wire npn sensors or mechanical contacts
Input voltage (via U_B)	13...26 VDC
Input current	< 700 mA, short-circuit protection
Switching threshold OFF/ON	2 mA / 3...3.4 mA at 24 VDC
Input time delay	2.5 ms
Switching frequency	< 100 Hz
Potential isolation	to bus

I/O data mapping

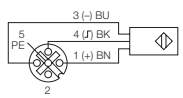
Abbreviations:

C1P4 connector 1, pin 4 (0 = OFF, 1 = ON)

IGS common input status (0 = OK, 1= fault)

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	C7P4	C6P4	C5P4	C4P4	C3P4	C2P4	C1P4	C0P4
	Byte 1	IGS	–	–	–	–	–	–	–

Wiring diagrams

Inputs	Operating voltage/bus line	
3-wire npn sensor  M12 x 1 connectors	Male  1 = shield 2 = V + 3 = V – 4 = CAN_H 5 = CAN_L Female  7/8" connectors	

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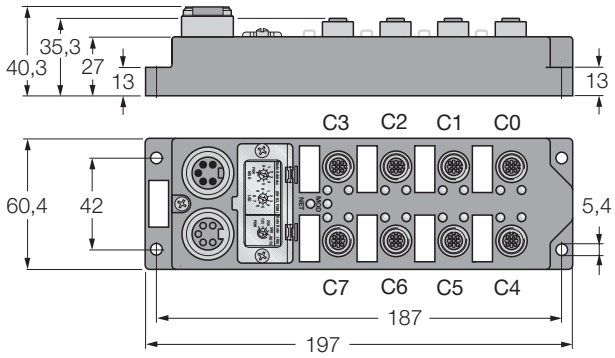
Compact fieldbus station FDNL-S1600-T
16 inputs



- 8 x 2 inputs, pnp
- Common diagnostics
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 46

3

Type	FDNL-S1600-T
Ident-no.	6603316
Operating voltage U_B	11...26 VDC
Internal current consumption (via U_B)	< 50 mA (plus the sum of sensor currents)
Input circuits	(16) 3-wire pnp sensors or mechanical contacts
Input voltage (via U_B)	13...26 VDC
Input current	< 700 mA, short-circuit protection
Switching threshold OFF/ON	2 mA / 3...3.4 mA at 24 VDC
Input time delay	2.5 ms
Switching frequency	< 100 Hz
Potential isolation	to bus

I/O data mapping

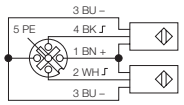
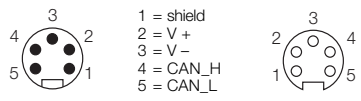
Abbreviations:

C1P4 connector 1, pin 4 (0 = OFF, 1 = ON)

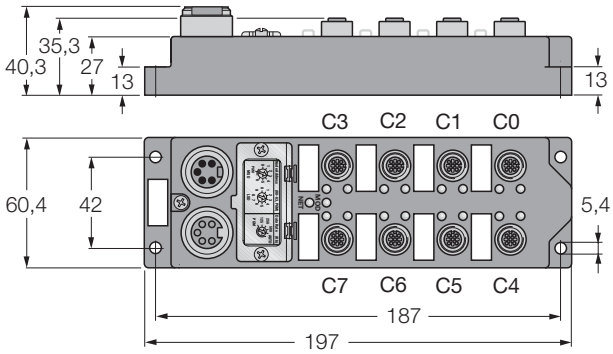
IGS common input status (0 = OK, 1= fault)

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	C3P2	C3P4	C2P2	C2P4	C1P2	C1P4	C0P2	C0P4
	Byte 1	C7P2	C7P4	C6P2	C6P4	C5P2	C5P4	C4P2	C4P4
	Byte 2	IGS	–	–	–	–	–	–	–

Wiring diagrams

Inputs	Operating voltage/bus line	
3-wire pnp sensor	Male / Female	
		
M12 x 1 connectors	7/8" connectors	

Compact fieldbus station FDNL-N1600-T
16 inputs



- 8 x 2 inputs, npn
- Common diagnostics
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 46

Type	FDNL-N1600-T
Ident-no.	6603672
Operating voltage U_B	11...26 VDC
Internal current consumption (via U_B)	< 50 mA (plus the sum of sensor currents)
Input circuits	(16) 3-wire npn sensors or mechanical contacts
Input voltage (via U_B)	13...26 VDC
Input current	< 700 mA, short-circuit protection
Switching threshold OFF/ON	2 mA / 3...3.4 mA at 24 VDC
Input time delay	2.5 ms
Switching frequency	< 100 Hz
Potential isolation	to bus

I/O data mapping

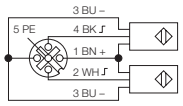
Abbreviations:

C1P4 connector 1, pin 4 (0 = OFF, 1 = ON)

IGS common input status (0 = OK, 1= fault)

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	C3P2	C3P4	C2P2	C2P4	C1P2	C1P4	C0P2	C0P4
	Byte 1	C7P2	C7P4	C6P2	C6P4	C5P2	C5P4	C4P2	C4P4
	Byte 2	IGS	–	–	–	–	–	–	–

Wiring diagrams

Inputs	Operating voltage/bus line	
3-wire npn sensor  M12 x 1 connectors	Male  1 = shield 2 = V + 3 = V – 4 = CAN_H 5 = CAN_L Female  7/8" connectors	

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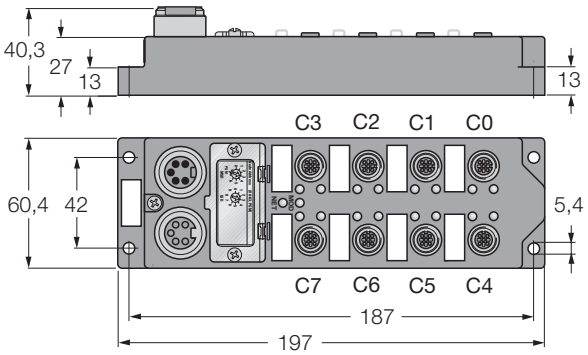
Compact fieldbus station FDNL-CSG88-T
8 inputs/8 outputs



- 8 x 1 inputs, pnp
  8 x 1 outputs
  (max. 0.5 A per output)
- Common diagnostics
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 46

3

Type	FDNL-CSG88-T
Ident-no.	6603351
Operating voltage U_B	11...26 VDC
Internal current consumption (via U_B)	< 100 mA (plus the sum of sensor currents)
Input circuits	(8) 3-wire pnp sensors or mechanical contacts
Input voltage (via U_B)	13...26 VDC
Input current	< 700 mA, short-circuit protection
Switching threshold OFF/ON	2 mA / 3...3.4 mA at 24 VDC
Input time delay	2.5 ms
Switching frequency	< 100 Hz
Potential isolation	to bus
Output circuits	(8) DC actuators
Output voltage (via U_B)	18...26 VDC
Output current	0.5 A per output, short-circuit protection
Switching frequency	< 100 Hz
Potential isolation	to bus

I/O data mapping

Abbreviations:

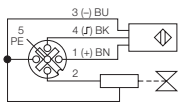
C1P4 connector 1, pin 4 (0 = OFF, 1 = ON)

OGS common output status (0 = OK, 1= fault)

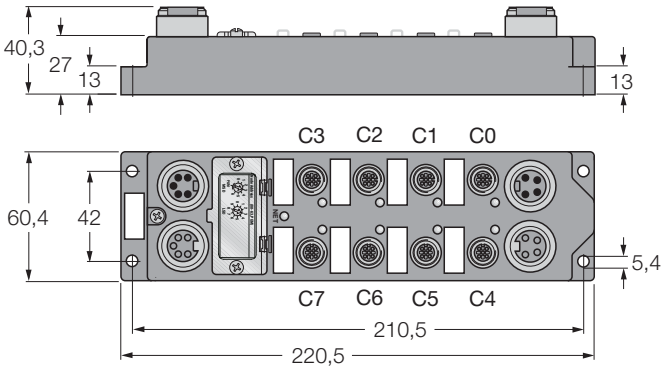
IGS common input status (0 = OK, 1= fault)

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	C7P4	C6P4	C5P4	C4P4	C3P4	C2P4	C1P4	C0P4
	Byte 1	IGS	OGS	–	–	–	–	–	–
Output	**Byte 0**	C7P2	C6P2	C5P2	C4P2	C3P2	C2P2	C1P2	C0P2

Wiring diagrams

Inputs/outputs	Operating voltage/bus line	
3 wire pnp sensors/DC actuator  M12 x 1 connectors	Male  1 = shield 2 = V + 3 = V – 4 = CAN_H 5 = CAN_L Female  7/8" connectors	

Compact fieldbus station FDNP-S0404G-TT
4 inputs/4 outputs



- 4 x 1 inputs, pnp
  4 x 1 outputs
  (max. 0.5 A per output)
- Auxiliary power/load supply
- Common diagnostics
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 46

Type	FDNP-S0404G-TT
Ident-no.	6603331
Operating voltage U_B	11...26 VDC
Internal current consumption (via U_B)	< 75 mA
Auxiliary power U_L	18...26 VDC
Input circuits	(4) 3-wire pnp sensors or mechanical contacts
Input voltage (via U_B)	13...26 VDC
Input current	< 700 mA, short-circuit protection
Switching threshold OFF/ON	2 mA / 3...3.4 mA at 24 VDC
Input time delay	2.5 ms
Switching frequency	< 100 Hz
Potential isolation	to bus
Output circuits	(4) DC actuators
Output voltage (via U_L)	18...26 VDC
Output current	0.5 A per output, short-circuit protection
Switching frequency	< 100 Hz
Potential isolation	to bus

I/O data mapping

Abbreviations:

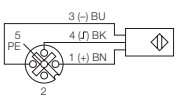
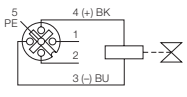
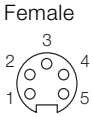
C1P4 connector 1, pin 4 (0 = OFF, 1 = ON)

OGS common output status (0 = OK, 1= fault)

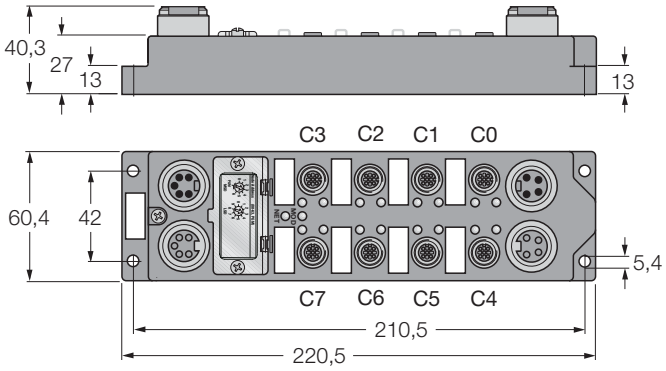
IGS common input status (0 = OK, 1= fault)

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	IGS	OGS	–	–	C3P4	C2P4	C1P4	C0P4
Output	**Byte 0**	–	–	–	–	C7P4	C6P4	C5P4	C4P4

Wiring diagrams

Inputs	Outputs	Operating voltage/bus line	Auxiliary power/load supply
3-wire pnp sensor	DC actuator	Male / Female	Male / Female
		 1 = shield 2 = V + 3 = V – 4 = CAN_H 5 = CAN_L 	 1 = Aux + 2 = E + 3 = E – 4 = Aux – 
M12 x 1 connectors		7/8" connectors	7/8" connectors

Compact fieldbus station FDNP-S0808G-TT
8 inputs/8 outputs



- 4 x 2 inputs, pnp
  4 x 2 outputs
  (max. 0.5 A per output)
- Auxiliary power/load supply
- Common diagnostics
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 46

3

Type	FDNP-S0808G-TT
Ident-no.	6603348
Operating voltage U_B	11...26 VDC
Internal current consumption (via U_B)	< 75 mA
Auxiliary power U_L	18...26 VDC
Input circuits	(8) 3-wire pnp sensors or mechanical contacts
Input voltage (via U_B)	13...26 VDC
Input current	< 700 mA, short-circuit protection
Switching threshold OFF/ON	2 mA / 3...3.4 mA at 24 VDC
Input time delay	2.5 ms
Switching frequency	< 100 Hz
Potential isolation	to bus
Output circuits	(8) DC actuators
Output voltage (via U_L)	18...26 VDC
Output current	0.5 A per output, short-circuit protection
Switching frequency	< 100 Hz
Potential isolation	to bus

I/O data mapping

Abbreviations:

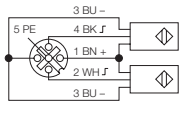
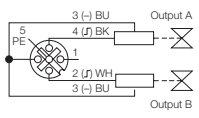
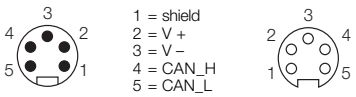
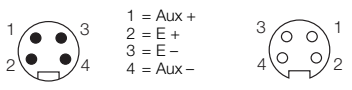
C1P4 connector 1, pin 4
(0 = OFF, 1 = ON)

OGS common output status
(0 = OK, 1= fault)

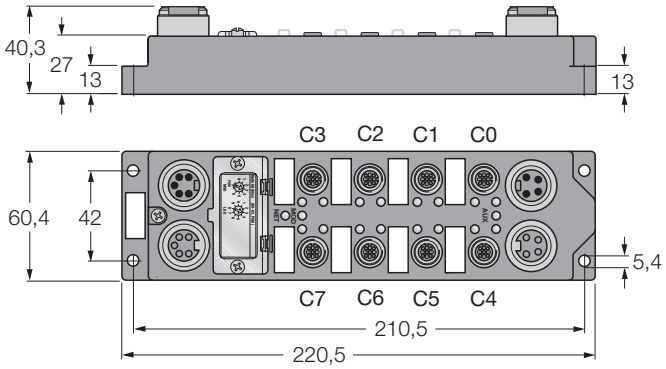
IGS common input status
(0 = OK, 1= fault)

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	C7P4	C6P4	C5P4	C4P4	C3P4	C2P4	C1P4	C0P4
	Byte 1	IGS	OGS	–	–	–	–	–	–
Output	**Byte 0**	C7P2	C6P2	C5P2	C4P2	C3P2	C2P2	C1P2	C0P2

Wiring diagrams

Inputs	Outputs	Operating voltage/bus line	Auxiliary power/load supply
3-wire pnp sensor	DC actuator	Male / Female	Male / Female
			
M12 x 1 connectors		7/8" connectors	7/8" connectors

Compact fieldbus station FDNP-XSG16-TT
16 inputs or outputs



- 16 configurable inputs, pnp or outputs (max. 0.5 A per output)
- High flexibility through freely configurable inputs and outputs
- Auxiliary power/load supply
- Common diagnostics
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information: see page 46**

Type	FDNP-XSG16-TT
Ident-no.	6603323
Operating voltage U_B	11...26 VDC
Internal current consumption (via U_B)	< 75 mA (plus the sum of sensor currents and output currents)
Auxiliary power U_L	18...26 VDC
Input circuits	(16) 3-wire pnp sensors or mechanical contacts
Input voltage (via U_B)	13...26 VDC
Input current	< 700 mA, short-circuit protection
Switching threshold OFF/ON	2 mA / 3...3.4 mA at 24 VDC
Input time delay	2.5 ms
Switching frequency	< 100 Hz
Potential isolation	to bus
Output circuits	(16) DC actuators
Output voltage (via U_L)	18...26 VDC
Output current	0.5 A per output, short-circuit protection
Switching frequency	< 100 Hz
Potential isolation	to bus

I/O data mapping

Abbreviations:

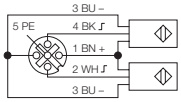
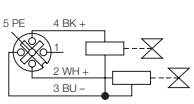
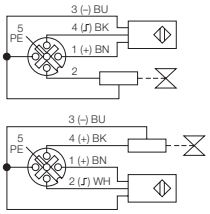
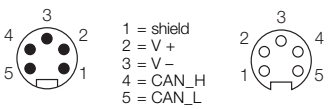
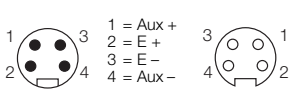
C1P4 connector 1, pin 4 (0 = OFF, 1 = ON)

OGS common output status (0 = OK, 1= fault)

IGS common input status (0 = OK, 1= fault)

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Byte 0**	C3P2	C3P4	C2P2	C2P4	C1P2	C1P4	C0P2	C0P4
	Byte 1	C7P2	C7P4	C6P2	C6P4	C5P2	C5P4	C4P2	C4P4
	Byte 2	IGS	OGS	–	–	–	–	–	–
Output	**Byte 0**	C3P2	C3P4	C2P2	C2P4	C1P2	C1P4	C0P2	C0P4
	Byte 1	C7P2	C7P4	C6P2	C6P4	C5P2	C5P4	C4P2	C4P4

Wiring diagrams

Inputs	Outputs	Inputs/outputs	Operating voltage/bus line	Auxiliary power/load supply
3-wire pnp sensor	DC actuator	3 wire pnp sensors/ DC actuator	Male / Female	Male / Female
				
M12 x 1 connectors	M12 x 1 connectors	M12 x 1 connectors	7/8" connectors	7/8" connectors

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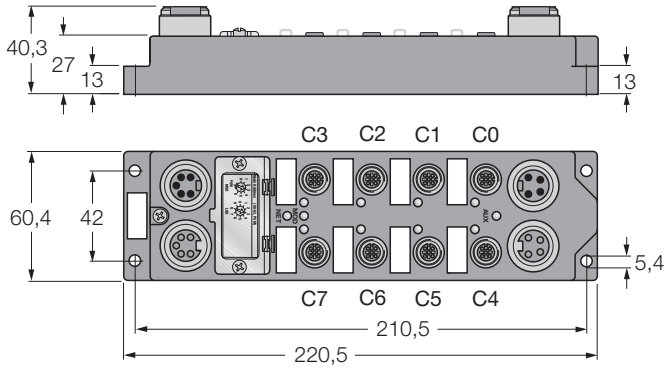
Compact fieldbus station FDNP-S0008G-TT 8 outputs



- 8 x 1 outputs (max. 0.5 A per output)
- Auxiliary power/load supply
- Common diagnostics
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information: see page 46**

3

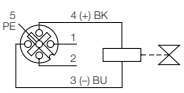
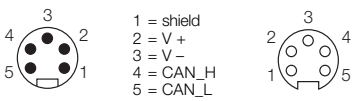
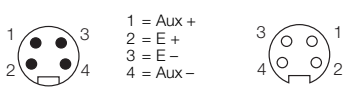
Type	FDNP-S0008G-TT
Ident-no.	6603673
Operating voltage U_B	11...26 VDC
Internal current consumption (via U_B)	< 140 mA
Auxiliary power U_L	18...26 VDC
Output circuits	(8) DC actuators
Output voltage (via U_L)	18...26 VDC
Output current	0.5 A per output, short-circuit protection
Switching frequency	< 100 Hz
Potential isolation	to bus

I/O data mapping

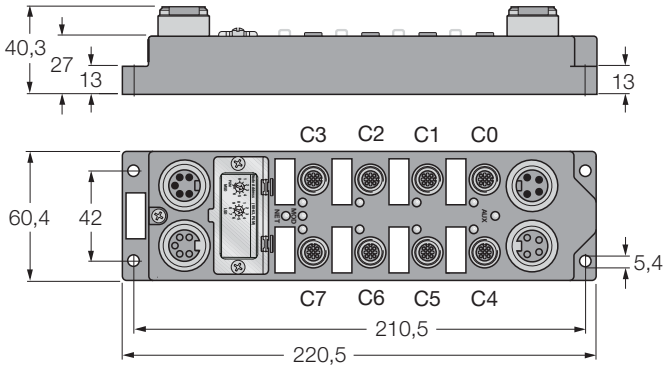
Abbreviations:
C1P4 connector 1, pin 4 (0 = OFF, 1 = ON)
OS-7 output status: channel 7 (0 = OK, 1= fault)

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Output	**Byte 0**	C7P4	C6P4	C5P4	C4P4	C3P4	C2P4	C1P4	C0P4
Input	**Byte 0**	OS-7	OS-6	OS-5	OS-4	OS-3	OS-2	OS-1	OS-0

Wiring diagrams

Inputs	Operating voltage/bus line	Auxiliary power/load supply
DC actuator	Male / Female	Male / Female
		
M12 x 1 connectors	7/8" connectors	7/8" connectors

Compact fieldbus station FDNP-S0008H-TT 8 outputs



- 8 x 1 outputs (max. 1.4 A per output)
- Auxiliary power/load supply
- Common diagnostics
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information: see page 46**

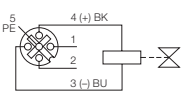
Type	FDNP-S0008H-TT
Ident-no.	6603674
Operating voltage U_B	11...26 VDC
Internal current consumption (via U_B)	< 50 mA
Auxiliary power U_L	18...26 VDC
Output circuits	(8) DC actuators
Output voltage (via U_L)	18...26 VDC
Output current	1,4 A per output (total current 8 A), short-circuit protection
Switching frequency	< 100 Hz
Potential isolation	to bus

I/O data mapping

Abbreviations:
C1P4 connector 1, pin 4 (0 = OFF, 1 = ON)
OS-7 output status: channel 7 (0 = OK, 1= fault)

		Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Output	**Byte 0**	C7P4	C6P4	C5P4	C4P4	C3P4	C2P4	C1P4	C0P4
Input	**Byte 0**	OS-7	OS-6	OS-5	OS-4	OS-3	OS-2	OS-1	OS-0

Wiring diagrams

Outputs	Operating voltage/bus line	Auxiliary power/load supply
DC actuator  M12 x 1 connectors	Male  1 = shield 2 = V + 3 = V – 4 = CAN_H 5 = CAN_L Female  7/8" connectors	Male  1 = Aux + 2 = E + 3 = E – 4 = Aux – Female  7/8" connectors

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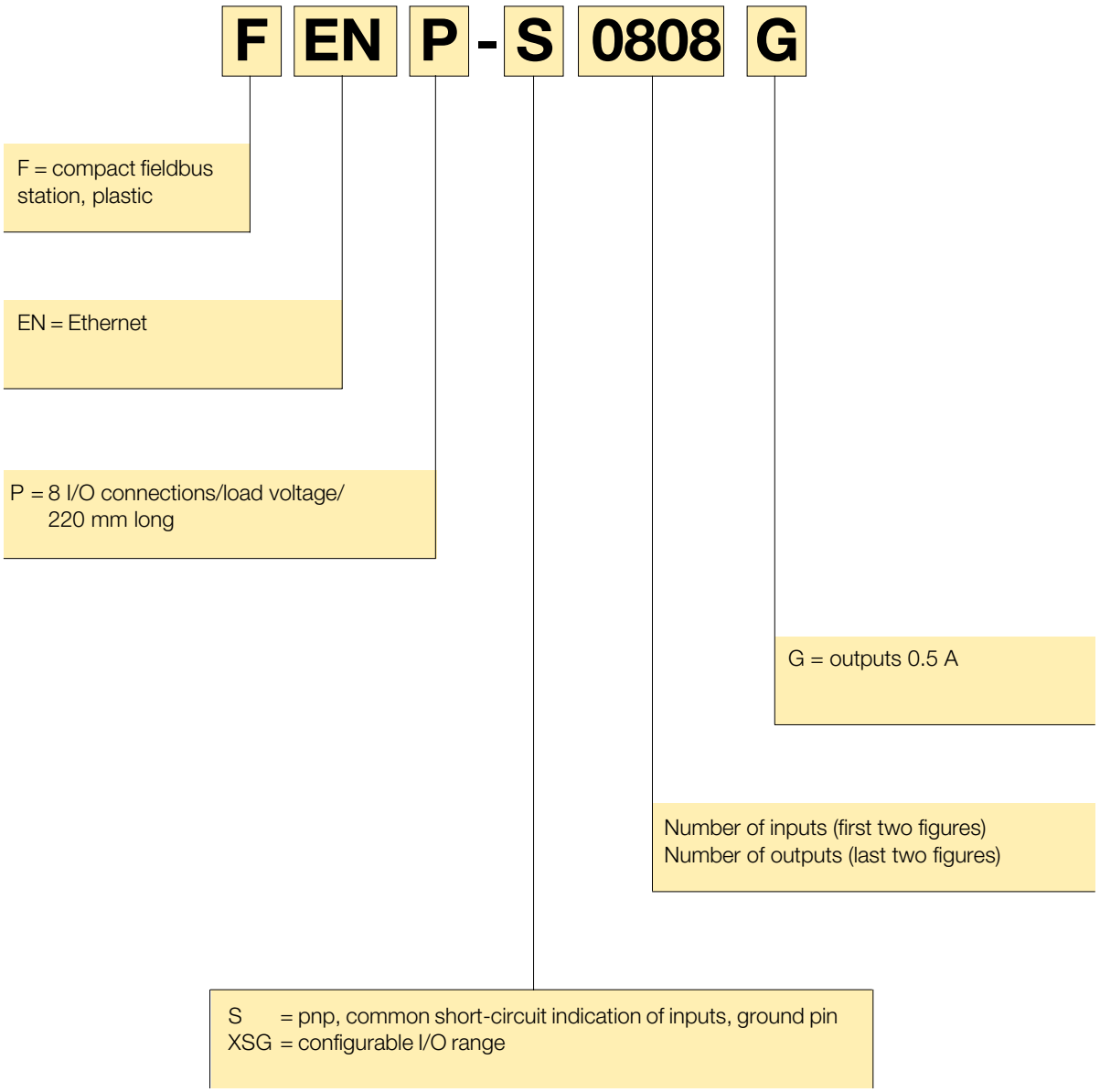
Compact fieldbus stations - device overview

Series FENP
Compact flat housing with up to 16 channels, housing with one bus connector, power supply via two 7/8" connectors, common diagnostics

Type	Ident-no.	Number of inputs	Number of outputs	Number of inputs/outputs per connector	Max. load current [A]	Data sheets see page
FENP stations – common diagnostics – pnp inputs						
FENP-S0800	6611038	8	–	1/–	–	69
FENP-S1600	6611039	16	–	2/–	–	70
FENP-S0008G	6611041	–	8	–/1	0.5	71
FENP-S0808G	6611040	8	8	2/2	0.5	72
FENP-XSG16	6611042	16 configurable channels			0.5	73

Compact fieldbus stations - type code



Compact fieldbus stations - Series FENP
General information

The fieldbus stations, series FENP, allow direct connection of up to 16 inputs/ outputs to an Ethernet TCP/IP network.

Glass-fibre reinforced flat plastic housings and the fully encapsulated module electronics guarantee protection degree IP67. Therefore these stations are particularly suited for use in harsh industrial environments.

The stations feature common short-circuit diagnostics and support transmission rates of 10/100 Mbps.

The status of the FENP stations can be called up via an integrated web server.

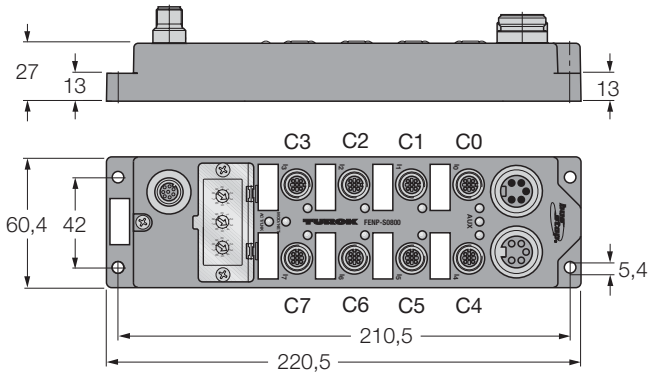
The module is connected via one 8-pole M12 x 1 connector to the Ethernet TCP/IP network.

Power is provided via a 7/8” connector and fed through via a second 7/8” connector. The module is equipped throughout with metal M12 connectors for connection of the sensor/actuator level.

General technical data

Characteristics	common short-circuit diagnostics
Adjustments	
Internet protocol IP address	
– via DHCP/BOOTP	If the first rotary switch is set to DHCP/BOOTP, then the DHCP/BOOTP server will automatically assign a netmask, an IP and default gateway address to the module. The settings of the other rotary switches are ignored.
– via PGM	If the first rotary switch is set to PGM, then the netmask, IP and default gateway address are assigned via software. The settings of the other rotary switches are ignored.
– via coded rotary switches	The last three figures of the IP address are set with the three coded rotary switches. The other values of the IP address, or netmask and default gateway accord to the default settings.
Reset mode	In order to reset the station to the default values, set all three coded rotary switches to 0.
IP address	192.168.0.0
Netmask	255.255.255.0
Default gateway	192.168.0.1
	After changing the position of the coded rotary switches, a voltage reset must be carried out
Transmission rate	10/100 Kbps; automatic
Connections	nickel-plated brass connectors
Ethernet	1 x female M12 x 1 connector; 8-pole
Power supply	2 x 7/8" connectors
Inputs/outputs	8 x female M12 x 1 connectors; 5-pole
LED indications	
Inputs	green: ON
outputs	green: ON
Power (dual colour LED)	green: operational, red: undervoltage
ACT/LINK	green: connection established
MOD/NET (dual colour LED)	flashing red: common short-circuit indication, green flashing: operational, red: communication not possible
Application layer	
HTTP	website of station
BOOTP; DHCP	automatic addressing
MODBUS TCP	I/O data exchange
EtherNet/IP	I/O data exchange (in preparation)
Housing	PA6-GF30, glass-fibre reinforced plastic housing with encapsulated electronics and nickel-plated brass connectors
Mounting	via 4 through-holes, Ø 5.4 mm
Degree of protection	NEMA 1, 3, 4, 12, 13 and IEC IP67
Temperature range	0 °C to +70 °C (+32 °F to +158 °F)
Dimensions	220.5 x 62.4 x 27 (H x W x D)

Compact fieldbus station FENP-S0800
8 inputs



- 8 x 1 inputs pnp
- Common diagnostics
- Status polling via integrated web server
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 68

Type	FENP-S0800
Ident-no.	6611038
Operating voltage U_B	18...30 VDC
Internal current consumption (via U_B)	< 150 mA
Input circuits	(8) pnp 3-wire sensors/2-wire sensors
Input voltage (via U_B)	18...30 VDC
Input current	500 mA per 8 inputs
Switching threshold OFF/ON	2 mA / 4 mA
Input time delay	2.5 ms
Switching frequency	< 250 Hz
Potential isolation	to bus

I/O data mapping

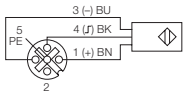
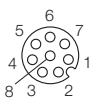
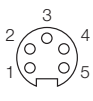
Abbreviations:

C1P4 connector 1, pin 4 (0 = OFF, 1 = ON)

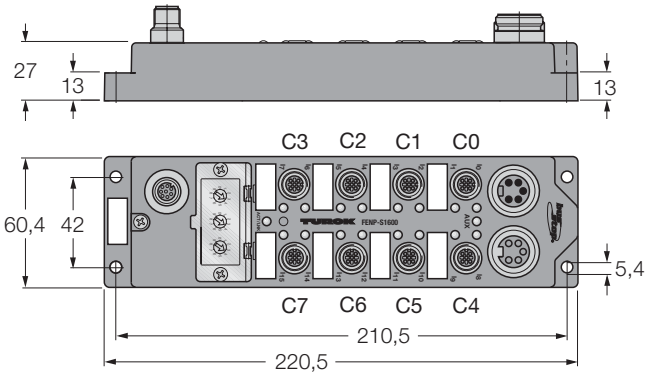
SC common short-circuit indication I > 500 mA (0 = OK, 1= fault)

		Bit 15	Bit 14	Bit 13	Bit 12	Bit 11	Bit 10	Bit 9	Bit 8	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Offset 0**	–	–	–	–	–	–	–	–	C7P4	C6P4	C5P4	C4P4	C3P4	C2P4	C1P4	C0P4
	Offset 1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	SC

Wiring diagrams

Inputs	Ethernet	Operating/load voltage
3-wire pnp sensor  M12 x 1 connectors	Female  1 = n. c. 2 = n. c. 3 = n. c. 4 = Tx – 5 = Rx + 6 = Tx + 7 = n. c. 8 = Rx – M12 x 1 connectors	Male  1 = GND 2 = GND 3 = PE 4 = U_B 5 = U_L Female  7/8" connectors

Compact fieldbus station FENP-S1600
16 inputs



- 8 x 2 inputs pnp
- Common diagnostics
- Status polling via integrated web server
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 68

Type	FENP-S1600
Ident-no.	6611039
Operating voltage U_B	18...30 VDC
Internal current consumption (via U_B)	< 150 mA
Input circuits	(16) pnp 3-wire sensors/2-wire sensors
Input voltage (via U_B)	18...30 VDC
Input current	500 mA per 16 inputs
Switching threshold OFF/ON	2 mA / 4 mA
Input time delay	2.5 ms
Switching frequency	< 250 Hz
Potential isolation	to bus

I/O data mapping

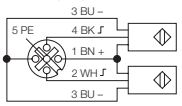
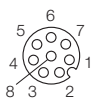
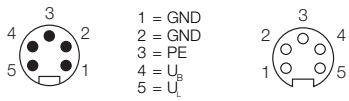
Abbreviations:

C1P4 connector 1, pin 4
(0 = OFF, 1 = ON)

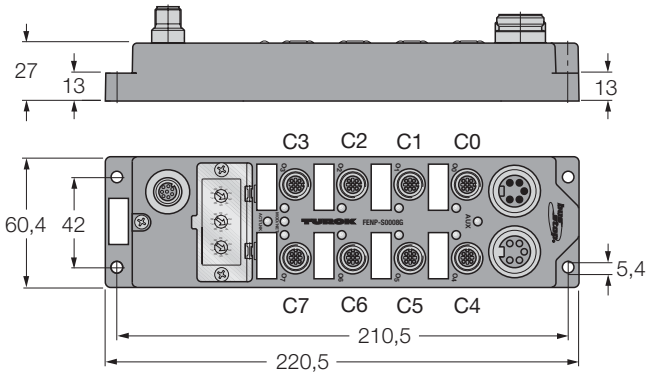
SC common short-circuit indication
I > 500 mA
(0 = OK, 1= fault)

		Bit 15	Bit 14	Bit 13	Bit 12	Bit 11	Bit 10	Bit 9	Bit 8	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Offset 0**	C7P2	C7P4	C6P2	C6P4	C5P2	C5P4	C4P2	C4P4	C3P2	C3P4	C2P2	C2P4	C1P2	C1P4	C0P2	C0P4
	Offset 1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	SC

Wiring diagrams

Inputs	Ethernet	Operating/load voltage
3-wire pnp sensor	Female	Male / Female
		
	1 = n. c. 2 = n. c. 3 = n. c. 4 = Tx – 5 = Rx + 6 = Tx + 7 = n. c. 8 = Rx –	1 = GND 2 = GND 3 = PE 4 = U_B 5 = U_L
M12 x 1 connectors	M12 x 1 connectors	7/8" connectors

Compact fieldbus station FENP-S0008G 8 outputs



- 8 x 1 outputs (max. 0.5 A per output)
- Common diagnostics
- Status polling via integrated web server
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information: see page 68**

Type	FENP-S0008G
Ident-no.	6611041
Operating voltage U_B	18...30 VDC
Internal current consumption (via U_B)	< 150 mA
Output circuits	(8) DC actuators
Output voltage (via U_L)	18...30 VDC
Output current	0.5 A per output, short-circuit protection
Switching frequency	< 250 Hz
Potential isolation	to bus

I/O data mapping

Abbreviations:

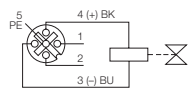
C1P4 connector 1, pin 4 (0 = OFF, 1 = ON)

U_L U_L < 18 VDC

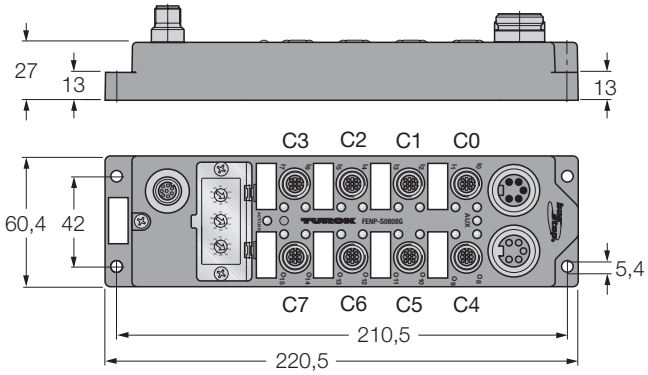
OS-7 output status: channel 7 (0 = OK, 1= fault)

		Bit 15	Bit 14	Bit 13	Bit 12	Bit 11	Bit 10	Bit 9	Bit 8	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Offset 0**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	U_L	–
	Offset 1	–	–	–	–	–	–	–	–	OS-7	OS-6	OS-5	OS-4	OS-3	OS-2	OS-1	OS-0
Output	**Offset 0**	–	–	–	–	–	–	–	–	C7P4	C6P4	C5P4	C4P4	C3P4	C2P4	C1P4	C0P4

Wiring diagrams

Outputs	Ethernet	Operating/load voltage
DC actuator  M12 x 1 connectors	Female  1 = n. c. 2 = n. c. 3 = n. c. 4 = Tx – 5 = Rx + 6 = Tx + 7 = n. c. 8 = Rx – M12 x 1 connectors	Male  Female  1 = GND 2 = GND 3 = PE 4 = U_S 5 = U_L 7/8" connectors

Compact fieldbus station FENP-S0808G
8 inputs/8 outputs



- 4 x 2 inputs pnp
  4 x 2 outputs
  (max. 0.5 A per output)
- Common diagnostics
- Status polling via integrated web server
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information:**
  see page 68

Type	FENP-S0808G
Ident-no.	6611040
Operating voltage U_B	18...30 VDC
Internal current consumption (via U_B)	< 150 mA
Input circuits	(8) pnp 3-wire sensors/2-wire sensors
Input voltage (via U_B)	18...30 VDC
Input current	500 mA per 8 inputs
Switching threshold OFF/ON	2 mA / 4 mA
Input time delay	2.5 ms
Switching frequency	< 250 Hz
Potential isolation	to bus
Output circuits	(8) DC actuators
Output voltage (via U_L)	18...30 VDC
Output current	0.5 A per output, short-circuit protection
Switching frequency	< 250 Hz
Potential isolation	to bus

I/O data mapping

Abbreviations:

C1P4 connector 1, pin 4 (0 = OFF, 1 = ON)

U_L U_L < 18 VDC

SC common short-circuit indication I > 500 mA

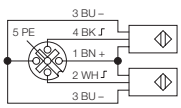
OS-7 output status: channel 7 (0 = OK, 1= fault)

		Bit 15	Bit 14	Bit 13	Bit 12	Bit 11	Bit 10	Bit 9	Bit 8	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Offset 0**	–	–	–	–	–	–	–	–	C3P2	C3P4	C2P2	C2P4	C1P2	C1P4	C0P2	C0P4
	Offset 1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	U_L	SC
	Offset 2	–	–	–	–	–	–	–	–	OS-7	OS-6	OS-5	OS-4	OS-3	OS-2	OS-1	OS-0
Output	**Offset 0**	–	–	–	–	–	–	–	–	C7P2	C7P4	C6P2	C6P4	C5P2	C5P4	C4P2	C4P4

Wiring diagrams

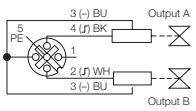
Inputs

3 wire pnp sensor



Outputs

DC actuator



M12 x 1 connectors

Bus line

Female

1 = n. c.
2 = n. c.
3 = n. c.
4 = Tx –
5 = Rx +
6 = Tx +
7 = n. c.
8 = Rx –

M12 x 1 connectors

Operating/load voltage

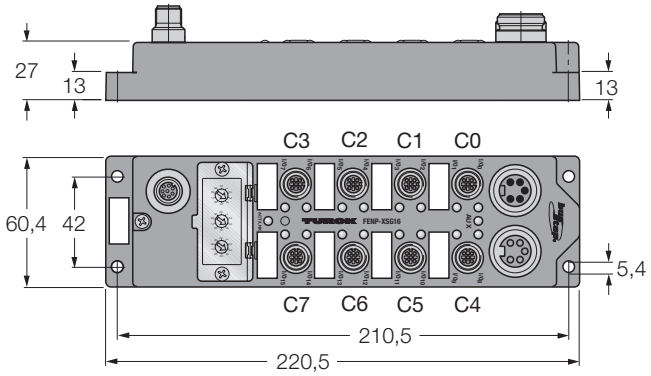
Male

1 = GND
2 = GND
3 = PE
4 = U_B
5 = U_L

Female

7/8" connectors

Compact fieldbus station FENP-XSG16
16 inputs or outputs



- 16 configurable inputs, pnp or outputs (max. 0.5 A per output)
- High flexibility through freely configurable inputs and outputs
- Common diagnostics
- Status polling via integrated web server
- Fully encapsulated plastic housing
- Degree of protection IP67

- **General information: see page 68**

Type	FENP-XSG16
Ident-no.	6611042
Operating voltage U_B	18...30 VDC
Internal current consumption (via U_B)	< 100 mA
Input circuits	(16) pnp 3-wire sensors/2-wire sensors
Input voltage (via U_B)	18...30 VDC
Input current	< 500 mA, short-circuit protection
Switching threshold OFF/ON	2 mA / 4 mA
Input time delay	2.5 ms
Switching frequency	< 250 Hz
Potential isolation	to bus
Output circuits	(16) DC actuators
Output voltage (via U_L)	18...30 VDC
Output current	0.5 A per output, short-circuit protection
Switching frequency	< 250 Hz
Potential isolation	to bus

I/O data mapping

Abbreviations:

C1P4 connector 1, pin 4 (0 = OFF, 1 = ON)

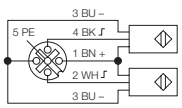
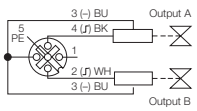
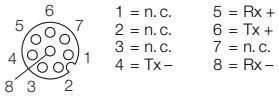
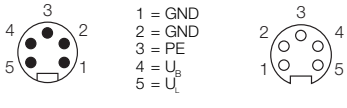
U_L U_L < 18 VDC

SC common short-circuit indication I > 500 mA

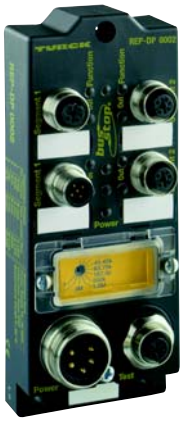
OS-7 output status: channel 7 (0 = OK, 1= fault)

		Bit 15	Bit 14	Bit 13	Bit 12	Bit 11	Bit 10	Bit 9	Bit 8	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Input	**Offset 0**	C7P2	C7P4	C6P2	C6P4	C5P2	C5P4	C4P2	C4P4	C3P2	C3P4	C2P2	C2P4	C1P2	C1P4	C0P2	C0P4
	Offset 1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	U_L	SC
	Offset 2	OS-15	OS-14	OS-13	OS-12	OS-11	OS-10	OS-9	OS-8	OS-7	OS-6	OS-5	OS-4	OS-3	OS-2	OS-1	OS-0
Output	**Offset 0**	C7P2	C7P4	C6P2	C6P4	C5P2	C5P4	C4P2	C4P4	C3P2	C3P4	C2P2	C2P4	C1P2	C1P4	C0P2	C0P4

Wiring diagrams

Inputs	Outputs	Ethernet	Operating/load voltage
3 wire pnp sensor	DC actuator	Female	Male / Female
			
M12 x 1 connectors		M12 x 1 connectors	7/8" connectors

Repeater REP-DP-0002
General information



With the TURCK repeater REP-DP-0002 it is possible to construct two galvanically isolated PROFIBUS-DP segments.
The number of RS485 components per segment is technically limited to a maximum of 32 nodes (incl. the repeater).
If the repeaters are cascaded, up to 126 PROFIBUS-DP modules can be operated via a single master and the line length of a network can be increased.

The bus in segment 2 can be dis- and re-connected electrically and mechanically during operation. Communcation in segment 1 is not affected by dis-connection/re-connection.

If a transmission error occurs, the faulty segment is automatically disconnected. If the error is resolved, communication is automatically resumed.
A bus error in segment 2 is indicated by a red illuminated LED on the repeater.

The TURCK repeater is specially suited for the high requirements of the harsh industrial environment.

General technical data

Adjustments	
Transmission rate	The transmission rate is adjusted via coded rotary switches:
– Automatic	Pos. 0: Autobaud – 9.6 kBps up to 12 MBps
– Manual	Pos. 1: 9.6 kbps Pos. 2: 19.2 kbps Pos. 3: 45.45 kbps Pos. 4: 93.75 kbps Pos. 5: 187.5 kbps Pos. 6: 500 kbps Pos. 7: 1.5 Mbps Pos. 8: 3 Mbps Pos. 9: 6 Mbps Pos. A: 12 Mbps Positions B to F are not used. If the master sets a modified transmission rate, the autobaud search procedure can only be re-started after a voltage reset.
LED indications	
Function (Bus)	segment 1: (1) yellow: communication – OFF: no communication segment 2: (1) yellow: communication – red: bus error – OFF: no communication the flashing frequency of the “Function” LEDs is relative to the data volume in the respective bus segment
Power (U_B)	(1) green: operational – green flashing: autobaud active
Connections	
Power supply	(1) Power in: male 7/8" connector
Segment 1	(1) Bus in: male M12 x 1 connector (1) Bus out: female connector M12 x 1
Segment 2	(2) Bus out: female connector M12 x 1
Test socket	(1) Test out: female connector M12 x 1 NOTE: In order not to affect bus communiation, it is required that the measurement is effected earth-free, i.e. relative measurement between the signal lines A and B of a segment.
Housing	
Material	PA6-GF30, glass-fibre reinforced plastic housing with encapsulated electronics and nickel-plated brass connectors
Mounting	via 3 through holes, Ø 5.4 mm
Degree of protection (IEC 60529/EN 60529)	IP67 (NEMA 1, 3, 4, 12, 13)
Operating temperature	0 °C to +55 °C (+32 °F to +131 °F)
Dimensions	148 x 60 x 27 (H x W x D)

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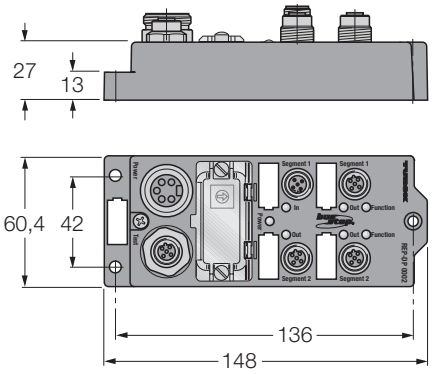
Repeater REP-DP-0002

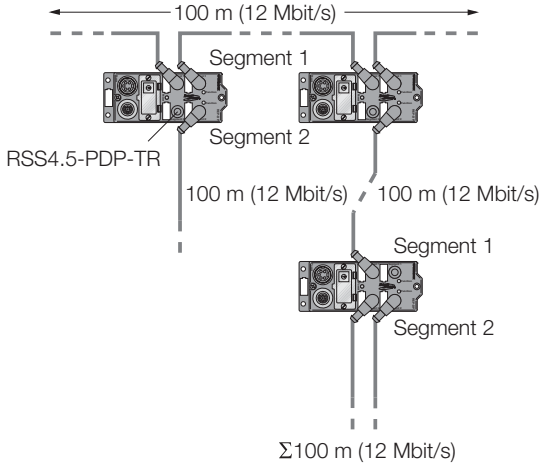


- Enhances system availability
- Tooling change capability
- Segmentation and expansion of PROFIBUS-DP networks
- Test socket for both segments
- Direct earthing via earthing jumper
- Manual and automatic adjustment of the transmission rate
- Automatic disconnection of faulty segments
- Automatic resumption of communication after error elimination

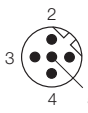
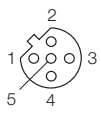
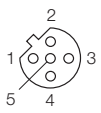
- **General information:**
see page 74

Type Ident-no.	REP-DP-0002 6825354
Operating voltage U_B Internal current consumption (via U_B)	18...30 VDC 62 mA at 30 VDC 100 mA at 18 VDC
Bus termination	according to the PROFIBUS guideline both PROFIBUS segments are to be independently terminated.
Earthing/shielding	The repeater can be grounded via the external screw. The shield of the bus line is capacitively coupled with the earthing screw. Additionally, the shield can be directly grounded via the earthing jumper.

Repeater configuration



Wiring diagrams

Operating voltage	Bus[1])	Test[1])
Male  1 = GND 2 = GND 3 = – 4 = U_B 5 = U_L [2]) 7/8" connectors	Male  1 = 5 VDC 2 = A line 3 = GND 4 = B line 5 = shield Female  M12 x 1 connectors	Female  1 = B line Seg.1 2 = A line Seg.1 3 = B line Seg.2 4 = A line Seg.2 5 = shield M12 x 1 connectors

[1]) Reverse-keyed acc. to PROFIBUS guidelines [2]) For feed-through of U_L to other bus devices

Repeater REP-DN
General information

The REP-DN can be operated in any kind of "Controller Area“ network (CAN), including DeviceNet™. Network segments, which are directly interconnected via a repeater, are seen as physically separate networks, but as a logical unit.

The networks are "physically separated“, because the trunk line and drop line lengths are determined independently of the other segment. The networks must be regarded as a logical unit, because the addresses cannot be duplicated - the scanner and configuration tools operate as a network.

The repeater does not require an address and is thus not detected by the other devices within the network. The repeater also does not need an EDS file.

The REP-DN is designed to extend the length of trunk or drop lines. A further application is the separation of power supply modules in networks operating with multiple power supplies.
The number or repeaters within a network is not limited. The repeater automatically detects the transmission speed.

General technical data

Adjustments	
Transmission rate	125 kbps, 250 kbps, 500 kbps or autobaud setting via rotary switches
LED indications	yellow: detection of the transmission rate green flashing: ready for data repetition green: data repetition red: data repetition not possible
Connections	
Bus line	5-pole 7/8” connector
Housing	PA6-GF30, glass-fibre reinforced plastic housing with encapsulated electronics and nickel-plated brass connectors
Mounting	(4) through-holes, Ø 5.3 mm
Degree of protection (IEC 60529/EN 60529)	IP67 (NEMA 1, 3, 4, 12, 13)
Operating temperature	-25 °C to +70 °C (-13 °F to +158 °F)
Dimensions	220 x 60 x 40.3 (H x W x D)

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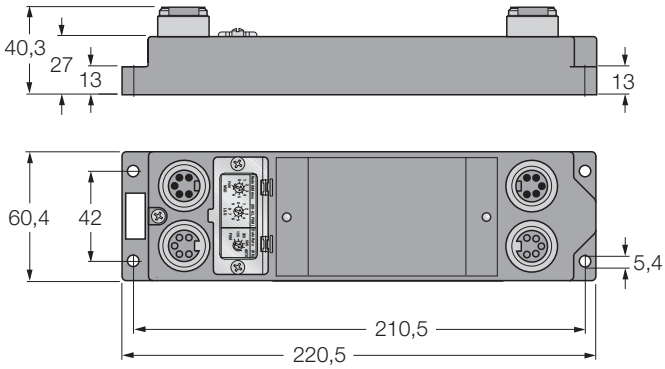
Repeater REP-DN



- Glass-fibre reinforced plastic housing
- Fully encapsulated module electronics
- Degree of protection IP67
- Extremely robust
- Extension of the max. trunk line length
- Extension of the max. drop line length
- Isolation of the DeviceNet™ power supply

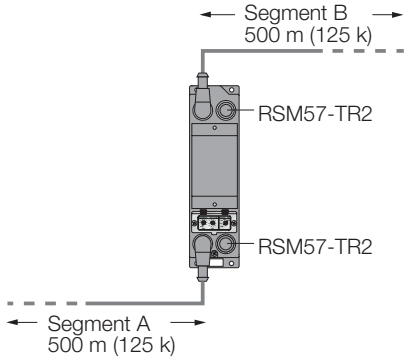
- **General information:** **see page 76**

Type	REP-DN
Ident-no.	6825349

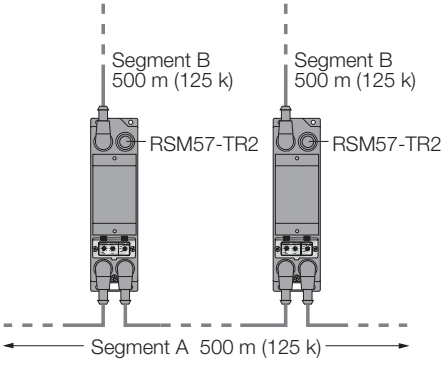
Operating voltage U_B	
Bus voltage	11…30 VDC
Current consumption	125 mA segment A, 30 mA segment B

Repeater configuration

Extension of the trunk line
In order to extend the trunk line, the repeaters are connected in series. The total delay time of the network accords to the sum of the delay times of the individual repeaters. The total delay time is thus 2 ms multiplied by the number of repeaters.



Extension of the drop line
In order to extend the drop line, the repeaters are connected in parallel. The total delay time accords to 2 ms because there is always only one repeater between the scanner on the trunk line and the other device.

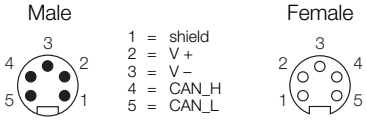


A ring structure is not admissible
Even though repeaters are used to construct large and complex networks, some configurations are not permitted. If a ring is created (both sides of the repeater are connected to the same network), then the repeater will constantly repeat itself, thus causing a network overload.

5

Wiring diagrams

Operating voltage/bus line



7/8" connectors

Spanner module FDN-DN1
General information

The FDN-DN1 spanner module is designed for data transmission between two DeviceNet™ controllers. The module eliminates the need for a higher level network pyramid because the DeviceNet™ networks can be coupled directly with each other. The concept is simple, efficient and cost-effective.

Simple - because the spanner module's data are processed like those of a standard I/O module by the controller. Additionally each DeviceNet™ scanner can transfer I/O data to the module without requiring any additional software or complex configuration procedures.

Efficient - because the spanner module is capable of transferring up to 128 data bytes per message.
Cost-effective - because a higher level control network, two separate control cards, wiring, routing and programming are superfluous.
The spanner module must basically be seen as two DeviceNet™ devices, i. e. one in network A and the other in network B, so that it is equipped with two addressing switches. These are completely independent of each other. During start-up the module automatically detects the transmission rate. Networks A and B can be operated with different transmission rates.

General technical data

Adjustments	
Address A	0...63 via rotary switch
Address B	0...63 via rotary switch
Transmission volume (via rotary switch)	4,16, 32 or 128 bytes
Transmission volume (via software)	0...128 bytes – in case of software configuration, the bi-directional data volume must not be identical.
LED indications	yellow: detection of the transmission rate green flashing: device is on-line, but not logically connected to the master green: device is logically connected to the master and functions correctly red flashing: I/O connection time-out red: communication not possible
Connections	
Bus line	5-pin 7/8” connector
Housing	PA6-GF30, glass-fibre reinforced plastic housing with encapsulated electronics and nickel-plated brass connectors
Mounting	(4) through-holes, Ø 5.3 mm
Degree of protection (IEC 60529/EN 60529)	IP67 (NEMA 1, 3, 4, 12, 13)
Operating temperature	-25 °C to +70 °C (-13 °F to +158 °F)
Dimensions	220 x 60 x 40.3 (H x W x D)
Approvals	UL, CSA

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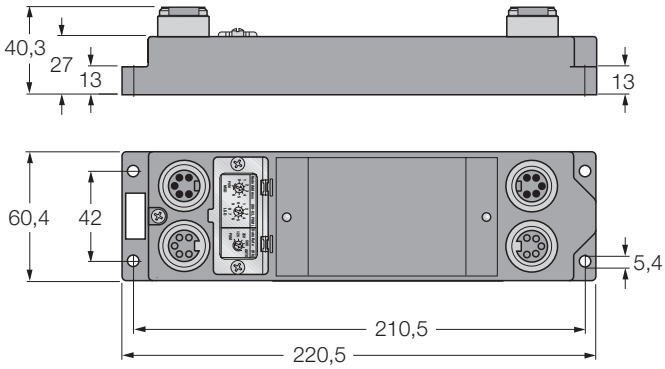
Spanner module FDN-DN1



- For bi-directional data transfer between two controllers
- Transmission of up to 128 data bytes between two controllers
- Galvanic isolation of two networks via opto-couplers
- Addressing rotary switch

- **General information:** **see page 78**

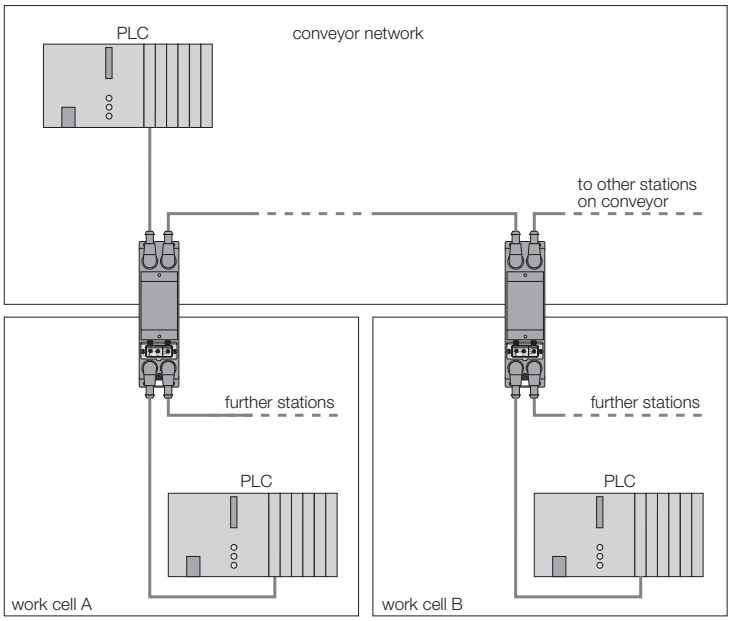
Type	FDN-DN1
Ident-no.	6603596
EDS file	F0132/I032_xx.eds (downloadable via the internet under www.turck.com)

Operating voltage U_B	
Bus voltage	11...30 VDC
Current consumption	125 mA segment A, 30 mA segment B

5

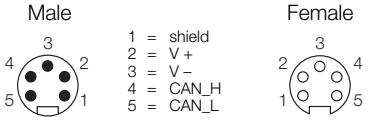
Spanner module topology

The spanner module is mainly used to coordinate multiple work cells.



Wiring diagrams

Operating voltage/bus line



7/8" connectors

Unmanaged switches
General information

The high performance industrial Ethernet™ switches provide five or nine M12 x 1 ports. The switch complies with IEEE 802.3 10Base-T Ethernet and 802.3u100Base-TX Fast Ethernet™ standards.

The Ethernet™ switch is suited for the following applications:

- Segmentation of network traffic
- Expansion of the Ethernet™ network length
- Conversion of data packets between different transmission speeds

The switch auto-senses transmission speeds of 10 or 100 Mbps. It stores the addresses in its routing table. The switch supports "store-and-forward“ switching architecture.

General technical data

LED indications	
Power	green: operational, OFF: operating voltage not applied
Act/Link	green: port linked, green flashing: port active 10/100 Mbps
10/100	green: 100 Mbps / OFF: 10 Mbps
Connections	nickel-plated brass connectors
Ethernet	M12 x 1 connectors
Power supply	7/8" connector, 5-pole
Housing	PA6-GF30, glass-fibre reinforced plastic housing with encapsulated electronics and nickel-plated brass connectors
Mounting	via 4 through-holes, Ø 5.4 mm
Degree of protection	NEMA 1, 3, 4, 12, 13 and IEC IP67
Temperature range	-40 °C to +85 °C (-40 °F to +185 °F)
Dimensions	
– SE-84X-E924	105 x 200 x 30 (H x W x D)
– SE-84X-E524	95 x 160 x 30 (H x W x D)

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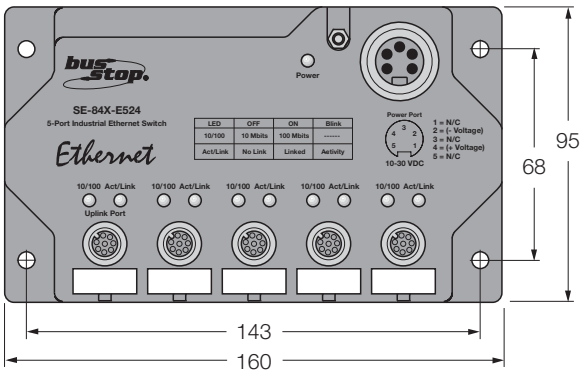
Unmanaged switches
SE-84X-E524 (5 ports)



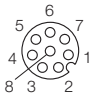
- 10/100 Mbps ports: 4 ports plus 1 uplink port
- Standards: IEEE 802.3, 802.3u, 802.3x
- Switching architecture: "Store-and-Forward"
- Buffer: 128 bytes
- Nway Auto-Negotiation: all ports
- Full Duplex/Half Duplex: all ports
- "Non-blocking“ Full Duplex Mode (no collision)
- Memory bandwidth: 1.4 Gbps
- Degree of protection IP67

- **General information: see page 80**

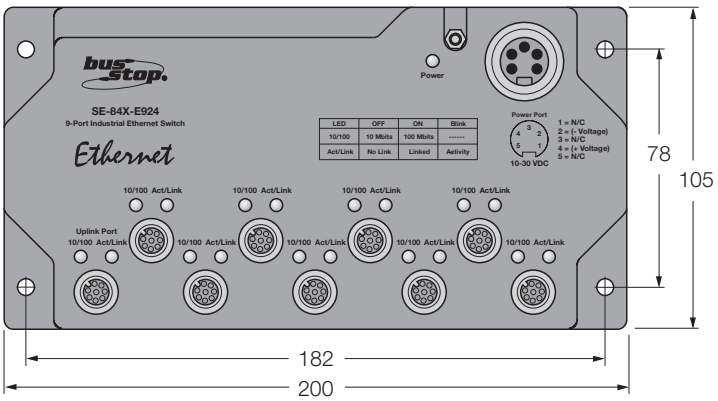
Type	SE-84X-E524
Ident-no.	6607000

Operating voltage U_B	10...30 VDC
Internal power consumption	1.9 W (typical)

Wiring diagrams

Operating voltage	Ethernet
Male  1 = n. c. 2 = – voltage 3 = n. c. 4 = + voltage 5 = n. c. 7/8" connectors	Female  Uplink port 1 = n. c. 5 = Rx + 2 = n. c. 6 = Tx + 3 = n. c. 7 = n. c. 4 = Tx – 8 = Rx – Downlink port 1 = n. c. 5 = Tx + 2 = n. c. 6 = Rx + 3 = n. c. 7 = n. c. 4 = Rx – 8 = Tx – M12 x 1 connectors

Unmanaged switches
SE-84X-E924 (9 ports)



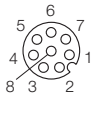
- 10/100 Mbps ports: 8 ports plus 1 uplink port
- Standards: IEEE 802.3, 802.3u, 802.3x
- Switching architecture: "Store-and-Forward"
- Buffer: 128 bytes
- Nway Auto-Negotiation: all ports
- Full Duplex/Half Duplex: all ports
- "Non-blocking“ Full Duplex Mode (no collision)
- Memory bandwidth: 1.4 Gbps
- Protection degree IP67

- **General information:**
see page 80

Type	SE-84X-E924
Ident-no.	6607001

Operating voltage U_B	10...30 VDC
Current consumption	4 W (typical)

Wiring diagrams

Operating voltage	Ethernet
Male  1 = n. c. 2 = – voltage 3 = n. c. 4 = + voltage 5 = n. c. 7/8" connectors	Female  Uplink port 1 = n. c. 5 = Rx + 2 = n. c. 6 = Tx + 3 = n. c. 7 = n. c. 4 = Tx – 8 = Rx – Downlink port 1 = n. c. 5 = Tx + 2 = n. c. 6 = Rx + 3 = n. c. 7 = n. c. 4 = Rx – 8 = Tx – M12 x 1 connectors

Hans Turck GmbH & Co.KG • D–45466 Mülheim/Ruhr • Tel. 0208/4952-0 • Fax 0208/4952-264 • E-Mail: turckmh@mail.turck-globe.de • www.turck.com

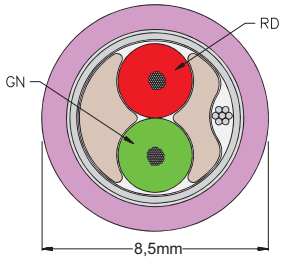
Buskabel-Qualitäten PROFIBUS-DP, CAN (DeviceNet™, CANopen), Ethernet (vorkonfektionierte Leitungen ab Seite A1 – 4)
Bus Cable Materials PROFIBUS-DP, CAN (DeviceNet™, CANopen), Ethernet (premoulded Cables from page A1 – 4 onwards)

Feldbus Fieldbus	Kabeltyp Cable type	Abb. Fig.	Material Kabelmantel Material cable jacket	Halogenfrei Halogen-free	Schleppketten-fähig Suited to trailing applications	Data pair Leiter-Querschnitt Connection profile [mm²]	Nennstrom Rated current [A]	DC-Widerstand DC resistance [Ω/km]
PROFIBUS-DP	451	(A)	TPUS	•	•	2 x 0,34	4	50
CAN (DeviceNet™, CANopen)	572 (Thin)	(B)	PVC	–	–	2 x 0,32	6,4	54,1
CAN (DeviceNet™, CANopen)	5711 (Mid)	(C)	PVC	–	–	2 x 0,52	9,6	34,1
CAN (DeviceNet™, CANopen)	5723 (Mid)	(C)	PUR	–	•	2 x 0,52	9,6	34,1
Ethernet	841	(D)	PVC	–	•	8 x 0,21	1,5	94
Ethernet	843	(D)	PVC	–	–	8 x 0,21	1,5	94

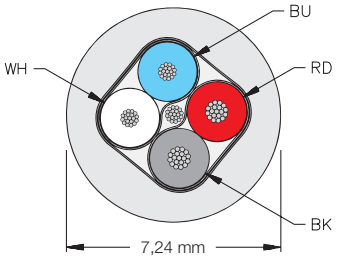
Versorgungskabel-Qualitäten PROFIBUS-DP, CAN (DeviceNet™, CANopen) (vorkonfektionierte Leitungen ab Seite A2 – 2)
Power Cable Materials PROFIBUS-DP, CAN (DeviceNet™, CANopen) (premoulded cables from page A2 – 2 onwards)

Nutzbar für Gerätefamilie (Bussystem) Usable for product family (Bus System)	Bussystem Bus System	Kabeltyp Cable type	Abb. Fig.	Material Kabelmantel Material cable jacket	Halogenfrei Halogen-free	Schleppkettenfähig Suited to trailing applications	Leiter-Querschnitt Connection profile [mm²]
BL67 FLDP, PDP, FXDP FENP	PROFIBUS-DP, CAN PROFIBUS-DP Ethernet™	52	(E)	PUR	•	•	5 x 1,5
FDN...	DeviceNet™	43	(F)	PUR	•	•	4 x 1,5
piconet®	PROFIBUS-DP, CAN	IPS	(G)	PUR	–	•	4 x 0,34

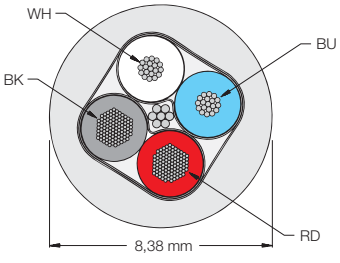
(A)



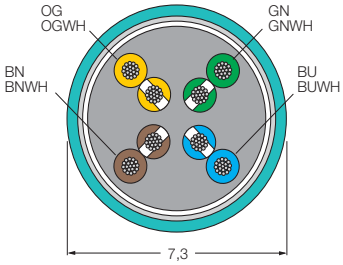
(B)



(C)



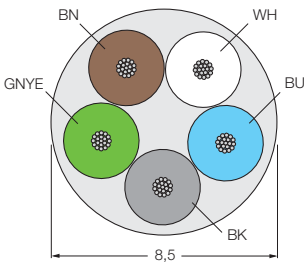
(D)



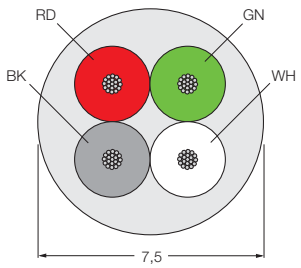
	Power pair			Nennwerte	Nom. Impedanz Data pair	Nom. Kapazität Data pair	Schirmung	Zulassungen	ab Seite ...
	Leiter-Querschnitt Connection profile	Nennstrom Rated current	DC-Widerstand DC resistance	Ratings	nom. impedance Data pair	nom. capacitance Data pair	Shield	Approvals	from page ... onwards
	[mm²]	[A]	[Ω/km]		[Ω]	[pF/m]			
	–	–	–	300 V, 80 °C	150 (3...20 MHz)	30	•	–	A1 – 4
	2 x 0,32	6,4	54,1	300 V, 80 °C	126 (1MHz)	37,17	•	UL, CSA	A1 – 8
	2 x 1,30	15,2	13,5	300 V, 80 °C	110 (1 MHz)	40,52	•	UL, CSA	A1 – 10
	2 x 1,04	13,6	16,9	300 V, 80 °C	110 (1 MHz)	40,52	•	UL, CSA	A1 – 12
	–	–	–	300 V, 75 °C	100 (1 MHz)	46	•	UL	A1 – 16
	–	–	–	300 V, 75 °C	100 (1 MHz)	46	•	UL	A1 – 16

	Nennstrom	DC-Widerstand	Nennwerte	Nom. Impedanz	Nom. Kapazität	Schirmung	Zulassungen	ab Seite ...
	Rated current	DC resistance	Ratings	nom. impedance	nom. capacitance	Shield	Approvals	from page ... onwards
	[A]	[Ω/km]		[Ω]	[pF/m]			
	15	13,3	240 V, 90 °C	–	–	–	–	A2 – 2
	15	13,3	240 V, 90 °C	–	–	–	–	A2 – 4
	6	58,7	240 V, 80 °C	–	–	–	–	A2 – 6

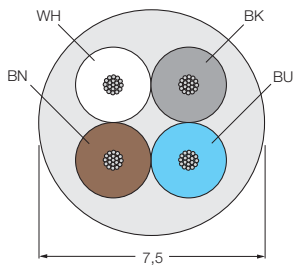
(E)



(F)

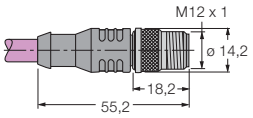
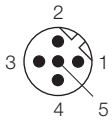
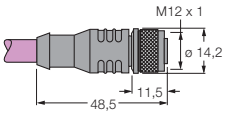
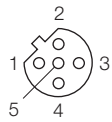
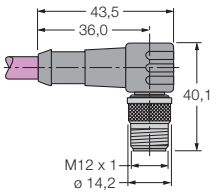
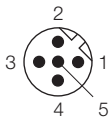
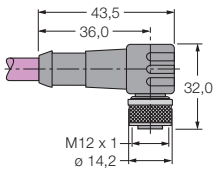
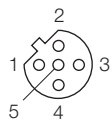


(G)



Vorkonfektionierte Buskabel für PROFIBUS-DP, Typ 451
Premoulded Bus Cables for PROFIBUS-DP, Type 451

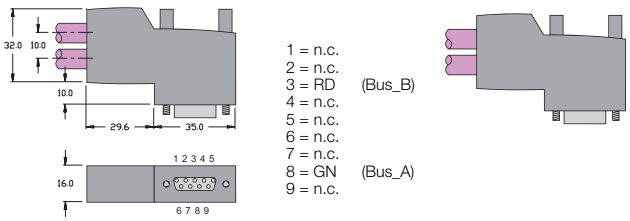
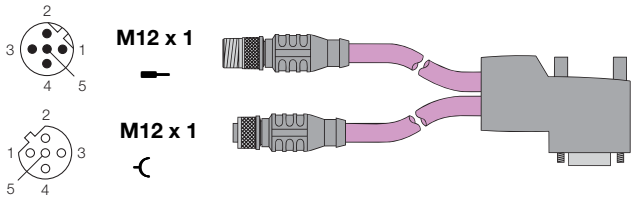
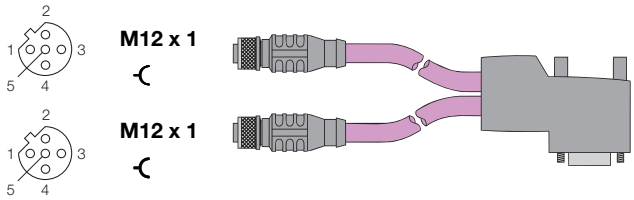
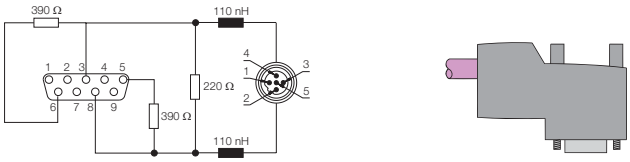
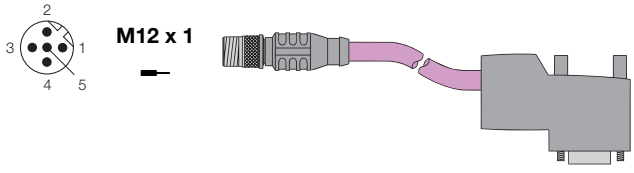
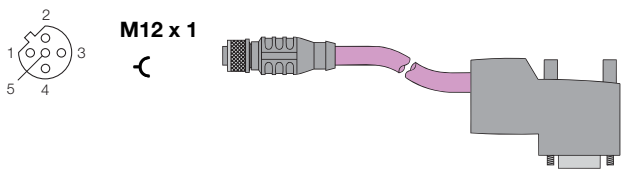
Konfektionierbare Steckverbinder siehe Seite A3 – 4
Field wireable connectors see page A3 – 4

Abmessungen/Bauform Dimensions/Housing style [mm]	Anschluss Connection	Steckverbinderausführung/ Maßbild Connector type/ dimension drawing	Kabellänge Cable length [m]
Kabel-Meterware Bulk cable		–	30
		–	150
		–	500
 **(A)**	**M12 x 1**	 1 = n. c. 2 = GN (Bus_A) 3 = n. c. 4 = RD (Bus_B) 5 = shield	(A)	6
			(A)	10
			(A)	15
			(B)	6
			(B)	10
			(B)	15
 **(B)**	**M12 x 1**		(A) + (B)	0,3
			(A) + (B)	0,5
			(A) + (B)	1
			(A) + (B)	2
			(A) + (B)	4
			(A) + (B)	6
			(A) + (B)	10
			(A) + (B)	15
			(A) + (B)	30
 **(C)**	**M12 x 1**	 1 = n. c. 2 = GN (Bus_A) 3 = n. c. 4 = RD (Bus_B) 5 = shield	(C)	6
			(C)	10
			(C)	15
			(D)	6
			(D)	10
			(D)	15
 **(D)**	**M12 x 1**		(C) + (D)	0,3
			(C) + (D)	0,5
			(C) + (D)	1
			(C) + (D)	2
			(C) + (D)	4
			(C) + (D)	6
			(C) + (D)	10
			(C) + (D)	15
			(C) + (D)	30

Typenbezeichnung Type	Ident-Nr. Ident No.	Kabeltyp Cable type	Material Kabelmantel Material cable jacket	Invers codiert gemäß PNO-Richtlinie Reverse keyed acc. to PNO guidelines	Schleppkettenfähig Suited to trailing applications	Schutzart Degree of protection
KABEL451-30M	6915601	451	TPUS	–	•	–
KABEL451-150M	6915603	451	TPUS	–	•	–
KABEL451-500M	6915606	451	TPUS	–	•	–
RSSW451-6M	6914111	451	TPUS	•	•	IP67
RSSW451-10M	6914112	451	TPUS	•	•	IP67
RSSW451-15M	6914113	451	TPUS	•	•	IP67
RKSW451-6M	6914114	451	TPUS	•	•	IP67
RKSW451-10M	6914115	451	TPUS	•	•	IP67
RKSW451-15M	6914116	451	TPUS	•	•	IP67
RSSW-RKSW451-0,3M	6915655	451	TPUS	•	•	IP67
RSSW-RKSW451-0,5M	6914117	451	TPUS	•	•	IP67
RSSW-RKSW451-1M	6914118	451	TPUS	•	•	IP67
RSSW-RKSW451-2M	6914119	451	TPUS	•	•	IP67
RSSW-RKSW451-4M	6914120	451	TPUS	•	•	IP67
RSSW-RKSW451-6M	6914121	451	TPUS	•	•	IP67
RSSW-RKSW451-10M	6914122	451	TPUS	•	•	IP67
RSSW-RKSW451-15M	6914123	451	TPUS	•	•	IP67
RSSW-RKSW451-30M	6914124	451	TPUS	•	•	IP67
WSSW451-6M	6914128	451	TPUS	•	•	IP67
WSSW451-10M	6914129	451	TPUS	•	•	IP67
WSSW451-15M	6914130	451	TPUS	•	•	IP67
WKSW451-6M	6914131	451	TPUS	•	•	IP67
WKSW451-10M	6914132	451	TPUS	•	•	IP67
WKSW451-15M	6914133	451	TPUS	•	•	IP67
WSSW-WKSW451-0,3M	6915680	451	TPUS	•	•	IP67
WSSW-WKSW451-0,5M	6914134	451	TPUS	•	•	IP67
WSSW-WKSW451-1M	6914135	451	TPUS	•	•	IP67
WSSW-WKSW451-2M	6914136	451	TPUS	•	•	IP67
WSSW-WKSW451-4M	6914137	451	TPUS	•	•	IP67
WSSW-WKSW451-6M	6914138	451	TPUS	•	•	IP67
WSSW-WKSW451-10M	6914139	451	TPUS	•	•	IP67
WSSW-WKSW451-15M	6914140	451	TPUS	•	•	IP67
WSSW-WKSW451-30M	6914141	451	TPUS	•	•	IP67

Vorkonfektionierte Buskabel für PROFIBUS-DP, Typ 451
Premoulded Bus Cables for PROFIBUS-DP, Type 451

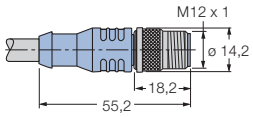
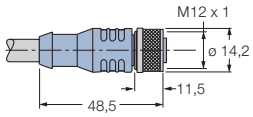
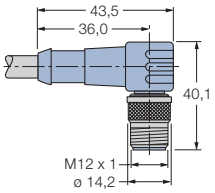
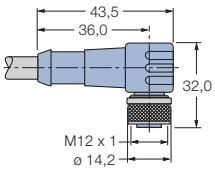
Konfektionierbare Steckverbinder siehe Seite A3 – 4
Field wireable connectors see page A3 – 4

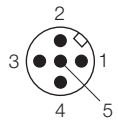
Abmessungen/Bauform Dimensions/Housing style [mm]	Anschluss Connection	Abschlusswiderstand Terminating resistor	Kabellänge Cable length [m]
		–	2 x 0,5
		–	2 x 1
		–	2 x 2
		–	2 x 0,3
		–	2 x 0,5
		–	2 x 1
		–	2 x 2
		–	2 x 0,3
		–	2 x 0,5
		–	2 x 1
		–	2 x 2
		•	0,5
		•	1
		•	2
		•	0,3
		•	0,5
		•	1
		•	2
		•	0,3
		•	0,5
		•	1
		•	2

Typenbezeichnung Type	Ident-Nr. Ident No.	Kabeltyp Cable type	Material Kabelmantel Material cable jacket	Invers codiert gemäß PNO-Richtlinie Reverse keyed acc. to PNO guidelines	Schleppkettenfähig Suited to trailing applications	Schutzart Degree of protection SUB-D / M12
D9-451-0,5M-0,5M	6915747	451	TPUS	•	•	IP20 / –
D9-451-1M-1M	6915748	451	TPUS	•	•	IP20 / –
D9-451-2M-2M	6915749	451	TPUS	•	•	IP20 / –
RSSW-D9-RKSW-451-0,3M-0,3M	6914125	451	TPUS	•	•	IP20 / IP67
RSSW-D9-RKSW-451-0,5M-0,5M	6915741	451	TPUS	•	•	IP20 / IP67
RSSW-D9-RKSW-451-1M-1M	6914126	451	TPUS	•	•	IP20 / IP67
RSSW-D9-RKSW-451-2M-2M	6914127	451	TPUS	•	•	IP20 / IP67
RKSW-D9-RKSW-451-0,3M-0,3M	6604659	451	TPUS	•	•	IP20 / IP67
RKSW-D9-RKSW-451-0,5M-0,5M	6915792	451	TPUS	•	•	IP20 / IP67
RKSW-D9-RKSW-451-1M-1M	6915793	451	TPUS	•	•	IP20 / IP67
RKSW-D9-RKSW-451-2M-2M	6915794	451	TPUS	•	•	IP20 / IP67
D9T451-0,5M	6915757	451	TPUS	•	•	IP20 / –
D9T451-1M	6915758	451	TPUS	•	•	IP20 / –
D9T451-2M	6915759	451	TPUS	•	•	IP20 / –
RSSW-D9T451-0,3M	6915775	451	TPUS	•	•	IP20 / IP67
RSSW-D9T451-0,5M	6915777	451	TPUS	•	•	IP20 / IP67
RSSW-D9T451-1M	6915778	451	TPUS	•	•	IP20 / IP67
RSSW-D9T451-2M	6915779	451	TPUS	•	•	IP20 / IP67
RKSW-D9T451-0,3M	6915765	451	TPUS	•	•	IP20 / IP67
RKSW-D9T451-0,5M	6915767	451	TPUS	•	•	IP20 / IP67
RKSW-D9T451-1M	6915768	451	TPUS	•	•	IP20 / IP67
RKSW-D9T451-2M	6915769	451	TPUS	•	•	IP20 / IP67

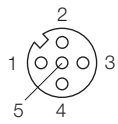
Vorkonfektionierte Buskabel für CAN (DeviceNet™, CANopen), Typ 572
Premoulded Bus Cables for CAN (DeviceNet™, CANopen), Type 572

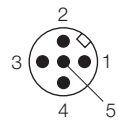
Konfektionierbare Steckverbinder siehe Seite A3 – 12
Field wireable connectors see page A3 – 12

Abmessungen/Bauform Dimensions/Housing style [mm]	Anschluss Connection	Steckverbinderausführung/ Maßbild Connector type/ dimension drawing	Kabellänge Cable length [m]
Kabel-Meterware Bulk cable		–	30
		–	150
		–	500
 **(A)**	**M12 x 1**	(A)	6
		(A)	10
		(A)	15
		(B)	6
		(B)	10
		(B)	15
 **(B)**	**M12 x 1**	(A) + (B)	0,3
		(A) + (B)	0,5
		(A) + (B)	1
		(A) + (B)	2
		(A) + (B)	4
		(A) + (B)	6
		(A) + (B)	10
		(A) + (B)	15
		(A) + (B)	30
 **(C)**	**M12 x 1**	(C)	6
		(C)	10
		(C)	15
		(D)	6
		(D)	10
		(D)	15
 **(D)**	**M12 x 1**	(C) + (D)	0,3
		(C) + (D)	0,5
		(C) + (D)	1
		(C) + (D)	2
		(C) + (D)	4
		(C) + (D)	6
		(C) + (D)	10
		(C) + (D)	15
		(C) + (D)	30

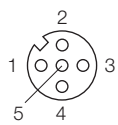


1 = shield
2 = RD (V +)
3 = BK (V –)
4 = WH (CAN_H)
5 = BU (CAN_L)





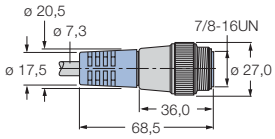
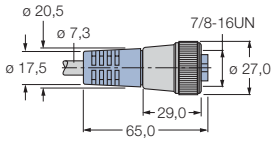
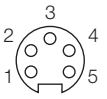
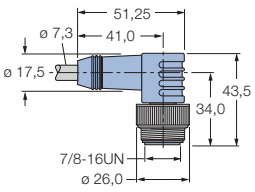
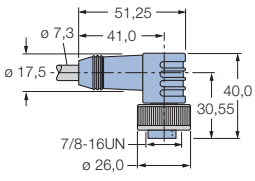
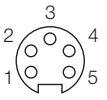
1 = shield
2 = RD (V +)
3 = BK (V –)
4 = WH (CAN_H)
5 = BU (CAN_L)



Typenbezeichnung Type	Ident-Nr. Ident No.	Kabeltyp Cable type	Material Kabelmantel Material cable jacket	Schleppkettenfähig Suited to trailing applications	Schutzart Degree of protection
KABEL572-30M	6958118	572	PVC	–	–
KABEL572-150M	6958120	572	PVC	–	–
KABEL572-500M	6604900	572	PVC	–	–
RSC572-6M	6602447	572	PVC	–	IP67
RSC572-10M	6602640	572	PVC	–	IP67
RSC572-15M	6603623	572	PVC	–	IP67
RKC572-6M	6603624	572	PVC	–	IP67
RKC572-10M	6602428	572	PVC	–	IP67
RKC572-15M	6604933	572	PVC	–	IP67
RSC-RKC572-0.3M	6602473	572	PVC	–	IP67
RSC-RKC572-0.5M	6602332	572	PVC	–	IP67
RSC-RKC572-1M	6603628	572	PVC	–	IP67
RSC-RKC572-2M	6603629	572	PVC	–	IP67
RSC-RKC572-4M	6603630	572	PVC	–	IP67
RSC-RKC572-6M	6602394	572	PVC	–	IP67
RSC-RKC572-10M	6602639	572	PVC	–	IP67
RSC-RKC572-15M	6602635	572	PVC	–	IP67
RSC-RKC572-30M	6603395	572	PVC	–	IP67
WSC572-6M	6603635	572	PVC	–	IP67
WSC572-10M	6603636	572	PVC	–	IP67
WSC572-15M	6603637	572	PVC	–	IP67
WKC572- 6M	6603638	572	PVC	–	IP67
WKC572-10M	6602637	572	PVC	–	IP67
WKC572-15M	6603640	572	PVC	–	IP67
WSC-WKC572- 0.3M	6603608	572	PVC	–	IP67
WSC-WKC572- 0.5M	6602024	572	PVC	–	IP67
WSC-WKC572-1M	6602027	572	PVC	–	IP67
WSC-WKC572-2M	6602030	572	PVC	–	IP67
WSC-WKC572-4M	6602542	572	PVC	–	IP67
WSC-WKC572-6M	6603645	572	PVC	–	IP67
WSC-WKC572-10M	6602638	572	PVC	–	IP67
WSC-WKC572-15M	6602684	572	PVC	–	IP67
WSC-WKC572-30M	6603648	572	PVC	–	IP67

Vorkonfektionierte Buskabel für CAN (DeviceNet™, CANopen), Typ 5711
Premoulded Bus Cables for CAN (DeviceNet™, CANopen), Type 5711

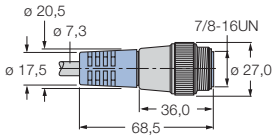
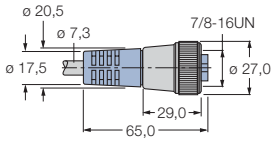
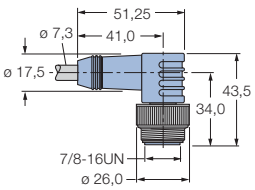
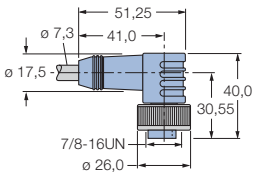
Konfektionierbare Steckverbinder siehe Seite A3 – 12
Field wireable connectors see page A3 – 12

Abmessungen/Bauform Dimensions/Housing style [mm]	Anschluss Connection	Steckverbinderausführung/ Maßbild Connector type/ dimension drawing	Kabellänge Cable length [m]
Kabel-Meterware		–	30
Bulk cable		–	150
		–	500
 **(A)**	**7/8“**	 1 = shield 2 = RD (V +) 3 = BK (V –) 4 = WH (CAN_H) 5 = BU (CAN_L)	(A) 6 (A) 10 (A) 15 (B) 6 (B) 10 (B) 15
 **(B)**	**7/8“**		(A) + (B) 0,3 (A) + (B) 0,5 (A) + (B) 1 (A) + (B) 2 (A) + (B) 4 (A) + (B) 6 (A) + (B) 10 (A) + (B) 15 (A) + (B) 30
 **(C)**	**7/8“**	 1 = shield 2 = RD (V +) 3 = BK (V –) 4 = WH (CAN_H) 5 = BU (CAN_L)	(C) 6 (C) 10 (C) 15 (D) 6 (D) 10 (D) 15
 **(D)**	**7/8“**		(C) + (D) 0,3 (C) + (D) 0,5 (C) + (D) 1 (C) + (D) 2 (C) + (D) 4 (C) + (D) 6 (C) + (D) 10 (C) + (D) 15 (C) + (D) 30

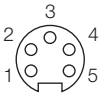
Typenbezeichnung Type	Ident-Nr. Ident No.	Kabeltyp Cable type	Material Kabelmantel Material cable jacket	Schleppkettenfähig Suited to trailing applications	Schutzart Degree of protection
KABEL5711-30M	6602453	5711	PVC	–	–
KABEL5711-150M	6602455	5711	PVC	–	–
KABEL5711-500M	6604922	5711	PVC	–	–
RSM5711-6M	6603649	5711	PVC	–	IP67
RSM5711-10M	6603650	5711	PVC	–	IP67
RSM5711-15M	6603651	5711	PVC	–	IP67
RKM5711-6M	6603652	5711	PVC	–	IP67
RKM5711-10M	6603653	5711	PVC	–	IP67
RKM5711-15M	6602395	5711	PVC	–	IP67
RSM-RKM5711- 0.3M	6602611	5711	PVC	–	IP67
RSM-RKM5711- 0.5M	6602050	5711	PVC	–	IP67
RSM-RKM5711- 1M	6602356	5711	PVC	–	IP67
RSM-RKM5711- 2M	6602045	5711	PVC	–	IP67
RSM-RKM5711- 4M	6602051	5711	PVC	–	IP67
RSM-RKM5711- 6M	6602052	5711	PVC	–	IP67
RSM-RKM5711-10M	6602023	5711	PVC	–	IP67
RSM-RKM5711-15M	6602504	5711	PVC	–	IP67
RSM-RKM5711-30M	6603662	5711	PVC	–	IP67
WSM5711- 6M	6606039	5711	PVC	–	IP67
WSM5711-10M	6602718	5711	PVC	–	IP67
WSM5711-15M	6603225	5711	PVC	–	IP67
WKM5711- 6M	6605296	5711	PVC	–	IP67
WKM5711- 10M	6605298	5711	PVC	–	P67
WKM5711- 15M	6605299	5711	PVC	–	IP67
WSM-WKM5711- 0.3M	6605652	5711	PVC	–	IP67
WSM-WKM5711- 0.5M	6602014	5711	PVC	–	IP67
WSM-WKM5711- 1M	6602016	5711	PVC	–	IP67
WSM-WKM5711- 2M	6602018	5711	PVC	–	IP67
WSM-WKM5711- 4M	6605654	5711	PVC	–	IP67
WSM-WKM5711- 6M	6602401	5711	PVC	–	IP67
WSM-WKM5711-10M	6602022	5711	PVC	–	IP67
WSM-WKM5711-15M	6603447	5711	PVC	–	IP67
WSM-WKM5711-30M	6605657	5711	PVC	–	IP67

Vorkonfektionierte Buskabel für CAN (DeviceNet™, CANopen), Typ 5723
Premoulded Bus Cables for CAN (DeviceNet™, CANopen), Type 5723

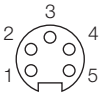
Konfektionierbare Steckverbinder siehe Seite A3 – 12
Field wireable connectors see page A3 – 12

Abmessungen/Bauform Dimensions/Housing style [mm]	Anschluss Connection	Steckverbinderausführung/ Maßbild Connector type/ dimension drawing	Kabellänge Cable length [m]
Kabel-Meterware		–	30
Bulk cable		–	150
		–	500
 **(A)**	**7/8“**	(A)	6
		(A)	10
		(A)	15
		(B)	6
		(B)	10
		(B)	15
 **(B)**	**7/8“**	(A) + (B)	0,3
		(A) + (B)	0,5
		(A) + (B)	1
		(A) + (B)	2
		(A) + (B)	4
		(A) + (B)	6
		(A) + (B)	10
		(A) + (B)	15
		(A) + (B)	30
 **(C)**	**7/8“**	(C)	6
		(C)	10
		(C)	15
		(D)	6
		(D)	10
		(D)	15
 **(D)**	**7/8“**	(C) + (D)	0,3
		(C) + (D)	0,5
		(C) + (D)	1
		(C) + (D)	2
		(C) + (D)	4
		(C) + (D)	6
		(C) + (D)	10
		(C) + (D)	15
		(C) + (D)	30

1 = shield
2 = RD (V +)
3 = BK (V –)
4 = WH (CAN_H)
5 = BU (CAN_L)



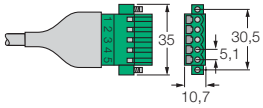
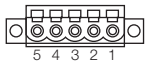
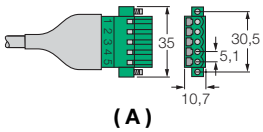
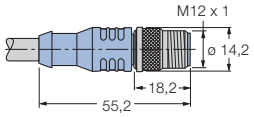
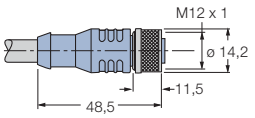
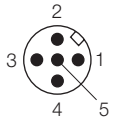
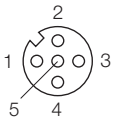
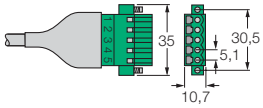
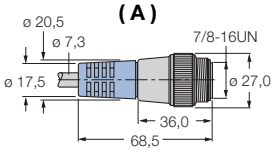
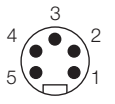
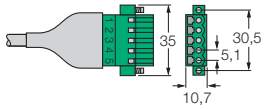
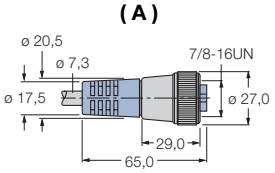
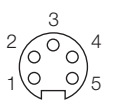
1 = shield
2 = RD (V +)
3 = BK (V –)
4 = WH (CAN_H)
5 = BU (CAN_L)



Typenbezeichnung Type	Ident-Nr. Ident No.	Kabeltyp Cable type	Material Kabelmantel Material cable jacket	Schleppkettenfähig Suited to trailing applications	Schutzart Degree of protection
KABEL5723-30M	6604923	5723	PUR	•	–
KABEL5723-150M	6604925	5723	PUR	•	–
KABEL5723-500M	6604928	5723	PUR	•	–
RSM5723-6M	6605933	5723	PUR	•	IP67
RSM5723-10M	6605935	5723	PUR	•	IP67
RSM5723-15M	6605936	5723	PUR	•	IP67
RKM5723-6M	6605189	5723	PUR	•	IP67
RKM5723-10M	6605191	5723	PUR	•	IP67
RKM5723-15M	6605192	5723	PUR	•	IP67
RSM-RKM5723-0.3M	6605544	5723	PUR	•	IP67
RSM-RKM5723-0.5M	6605545	5723	PUR	•	IP67
RSM-RKM5723-1M	6605546	5723	PUR	•	IP67
RSM-RKM5723-2M	6605548	5723	PUR	•	IP67
RSM-RKM5723-4M	6605551	5723	PUR	•	IP67
RSM-RKM5723-6M	6605553	5723	PUR	•	IP67
RSM-RKM5723-10M	6605555	5723	PUR	•	IP67
RSM-RKM5723-15M	6605556	5723	PUR	•	IP67
RSM-RKM5723-30M	6605559	5723	PUR	•	IP67
WSM5723-6M	6606055	5723	PUR	•	IP67
WSM5723-10M	6606057	5723	PUR	•	IP67
WSM5723-15M	6606058	5723	PUR	•	IP67
WKM5723-6M	6605314	5723	PUR	•	IP67
WKM5723-10M	6605316	5723	PUR	•	P67
WKM5723-15M	6605317	5723	PUR	•	IP67
WSM-WKM5723-0.3 M	6605660	5723	PUR	•	IP67
WSM-WKM5723-0.5 M	6605661	5723	PUR	•	IP67
WSM-WKM5723-1M	6605662	5723	PUR	•	IP67
WSM-WKM5723-2M	6605664	5723	PUR	•	IP67
WSM-WKM5723-4M	6605667	5723	PUR	•	IP67
WSM-WKM5723-6M	6605669	5723	PUR	•	IP67
WSM-WKM5723-10M	6605671	5723	PUR	•	IP67
WSM-WKM5723-15M	6605672	5723	PUR	•	IP67
WSM-WKM5723-30M	6605675	5723	PUR	•	IP67

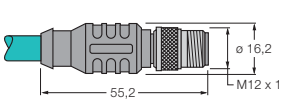
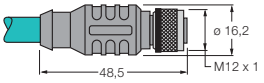
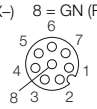
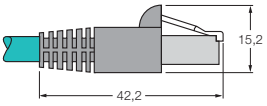
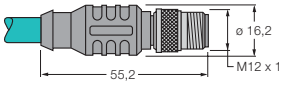
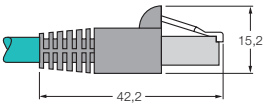
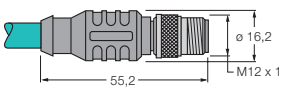
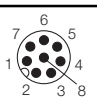
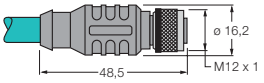
Vorkonfektionierte Buskabel für CAN (DeviceNet™, CANopen) open connector (OC)
Premoulded Bus Cables for CAN (DeviceNet™, CANopen) open connector (OC)

Konfektionierbare Steckverbinder siehe Seite A3 – 12
Field wireable connectors see page A3 – 12

Abmessungen/Bauform Dimensions/Housing style [mm]		Anschluss Connection	Steckverbinderausführung/ Maßbild Connector type/ dimension drawing	Kabellänge Cable length [m]
 **(A)**	 1 = BK (V –) 2 = BU (CAN_L) 3 = Bare (Shield) 4 = WH (CAN_H) 5 = RD (V +)	-C ▬	(A)	0,5
		-C ▬	(A)	1
		-C ▬	(A)	2
		-C ▬	(A)	0,5
		-C ▬	(A)	1
		-C ▬	(A)	2
		-C ▬	(A)	0,5
		-C ▬	(A)	1
		-C ▬	(A)	2
 **(A)**	**M12 x 1** ▬	▬ -C	(A) + (B)	0,5
		▬ -C	(A) + (B)	1
		▬ -C	(A) + (B)	2
 **(B)**		-C -C	(A) + (C)	0,5
		-C -C	(A) + (C)	1
		-C -C	(A) + (C)	2
 **(C)**	**M12 x 1** -C			
	 1 = shield 2 = RD (V +) 3 = BK (V –) 4 = WH (CAN_H) 5 = BU (CAN_L)			
				
 **(A)**		▬ -C	(A) + (D)	0,5
		▬ -C	(A) + (D)	1
		▬ -C	(A) + (D)	2
 **(D)**	**7/8“** ▬	▬ -C	(A) + (D)	0,5
		▬ -C	(A) + (D)	1
		▬ -C	(A) + (D)	2
	 1 = shield 2 = RD (V +) 3 = BK (V –) 4 = WH (CAN_H) 5 = BU (CAN_L)			
 **(A)**		-C -C	(A) + (E)	0,5
		-C -C	(A) + (E)	1
		-C -C	(A) + (E)	2
 **(E)**	**7/8“** -C	-C -C	(A) + (E)	0,5
		-C -C	(A) + (E)	1
		-C -C	(A) + (E)	2
	 1 = shield 2 = RD (V +) 3 = BK (V –) 4 = WH (CAN_H) 5 = BU (CAN_L)			

Typenbezeichnung Type	Ident-Nr. Ident No.	Kabeltyp Cable type	Material Kabelmantel Material cable jacket	Schleppkettenfähig Suited to trailing applications	Schutzart Degree of protection OC / M12
CBC5-572-0.5M	6606064	572	PVC	–	IP20 / –
CBC5-572-1M	6602545	572	PVC	–	IP20 / –
CBC5-572-2M	6606065	572	PVC	–	IP20 / –
CBC5-5711-0,5M	6606091	5711	PVC	–	IP20 / –
CBC5-5711-1M	6606092	5711	PVC	–	IP20 / –
CBC5-5711-2M	6606093	5711	PVC	–	IP20 / –
CBC5-5723-0,5M	6606097	5723	PUR	•	IP20 / –
CBC5-5723-1M	6606098	5723	PUR	•	IP20 / –
CBC5-5723-2M	6606099	5723	PUR	•	IP20 / –
RSC-CBC5-572-0.5M	6602737	572	PVC	–	IP20 / IP67
RSC-CBC5-572-1M	6606133	572	PVC	–	IP20 / IP67
RSC-CBC5-572-2M	6602340	572	PVC	–	IP20 / IP67
RKC-CBC5-572-0.5M	6606103	572	PVC	–	IP20 / IP67
RKC-CBC5-572-1M	6606104	572	PVC	–	IP20 / IP67
RKC-CBC5-572-2M	6606105	572	PVC	–	IP20 / IP67
RSM-CBC5-5711-0.5M	6606234	5711	PVC	–	IP20 / IP67
RSM-CBC5-5711-1M	6606235	5711	PVC	–	IP20 / IP67
RSM-CBC5-5711-2M	6606236	5711	PVC	–	IP20 / IP67
RSM-CBC5-5723-0.5M	6606240	5723	PUR	•	IP20 / IP67
RSM-CBC5-5723-1M	6606241	5723	PUR	•	IP20 / IP67
RSM-CBC5-5723-2M	6606242	5723	PUR	•	IP20 / IP67
RKM-CBC5-5711- 0.5M	6606195	5711	PVC	–	IP20 / IP67
RKM-CBC5-5711-1M	6606196	5711	PVC	–	IP20 / IP67
RKM-CBC5-5711-2M	6606197	5711	PVC	–	IP20 / IP67
RKM-CBC5-5723-0.5M	6606201	5723	PUR	•	IP20 / IP67
RKM-CBC5-5723-1M	6606202	5723	PUR	•	IP20 / IP67
RKM-CBC5-5723-2M	6606203	5723	PUR	•	IP20 / IP67

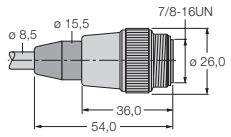
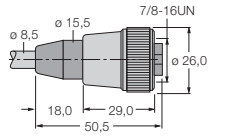
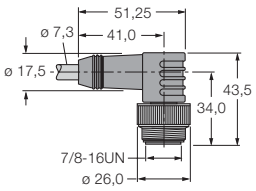
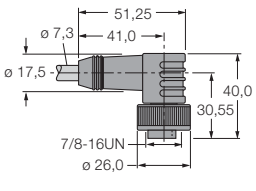
Vorkonfektionierte Buskabel für Ethernet
Premoulded Bus Cables for Ethernet

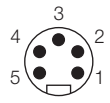
Abmessungen/Bauform Dimensions/Housing style [mm]	Anschluss Connection	Steckverbinderausführung/ Maßbild Connector type/ dimension drawing	Kabellänge Cable length [m]
 **(A)** **M12 x 1**  1 = WH/BU 5 = WH/GN (RX+) 2 = WH/BN 6 = WH/OG (TX+) 3 = BN 7 = BU 4 = OG (TX–) 8 = GN (RX–)		(A)	6
		(A)	10
		(A)	15
 **(B)** **M12 x 1** 		(B)	6
		(B)	10
		(B)	15
 **(C)** **RJ45**  1 = WH/OG (TX+) 5 = WH/BU 2 = OG (TX–) 6 = GN (RX –) 3 = WH/GN (RX+) 7 = WH/BN 4 = BU 8 = BN		(C)	6
		(C)	10
		(C)	15
 **(A)** **M12 x 1**  1 = WH/BU 5 = WH/GN (RX +) 2 = WH/BN 6 = WH/OG (TX +) 3 = BN 7 = BU 4 = OG (TX–) 8 = GN (RX –)		(A) + (A)	0,5
		(A) + (A)	1
		(A) + (A)	2
		(A) + (A)	4
		(A) + (A)	6
		(A) + (A)	10
		(A) + (A)	15
		(A) + (A)	30
 **(C)** **RJ45**  1 = WH/OG (TX+) 5 = WH/BU 2 = OG (TX–) 6 = GN (RX –) 3 = WH/GN (RX+) 7 = WH/BN 4 = BU 8 = BN		(C) + (C)	0,5
		(C) + (C)	1
		(C) + (C)	2
		(C) + (C)	4
		(C) + (C)	6
		(C) + (C)	10
		(C) + (C)	15
			30
 **(A)** **M12 x 1**  1 = WH/BU 5 = WH/GN (RX +) 2 = WH/BN 6 = WH/OG (TX +) 3 = BN 7 = BU 4 = OG (TX–) 8 = GN (RX –)		(A) + (C)	0,5
		(B) + (C)	0,5
		(D)	0,5
		(E)	0,5
 **(B)** **M12 x 1** 			
		(A) + (D)	0,5
		(A) + (E)	0,5
(D) **M12 x 1** **(E)** **M12 x 1** 			
		(C) + (D)	0,5
		(C) + (E)	0,5
(C) **RJ45** 1 = WH/OG (TX+) 5 = WH/BU 2 = OG (TX–) 6 = GN (RX –) 3 = WH/GN (RX+) 7 = WH/BN 4 = BU 8 = BN			

Typenbezeichnung Type	Ident-Nr. Ident No.	Kabeltyp Cable type	Material Kabelmantel Material cable jacket	Schleppkettenfähig Suited to trailing applications	Schutzart Degree of protection RJ45 / M12
RSS-841-6M	6603696	841	PVC	•	IP67 / –
RSS-841-10M	6603697	841	PVC	•	IP67 / –
RSS-843-15M	6611000	843	PVC	–	IP67 / –
RKS-841-6M	6603699	841	PVC	•	IP67 / –
RKS-841-10M	6603700	841	PVC	•	IP67 / –
RKS-843-15M	6611001	843	PVC	–	IP67 / –
RJ45S-841-6M	6603710	841	PVC	•	IP20 / –
RJ45S-841-10M	6603711	841	PVC	•	IP20 / –
RJ45S-843-15M	6611004	843	PVC	–	IP20 / –
RSS-RSS-841-0,5M	6603702	841	PVC	•	IP67 / IP67
RSS-RSS-841-1M	6603703	841	PVC	•	IP67 / IP67
RSS-RSS-841-2M	6603704	841	PVC	•	IP67 / IP67
RSS-RSS-841-4M	6603705	841	PVC	•	IP67 / IP67
RSS-RSS-841-6M	6603706	841	PVC	•	IP67 / IP67
RSS-RSS-841-10M	6603707	841	PVC	•	IP67 / IP67
RSS-RSS-843-15M	6611002	843	PVC	–	IP67 / IP67
RSS-RSS-843-30M	6611003	843	PVC	–	IP67 / IP67
RJ45S-RJ45S-841-0,5M	6603713	841	PVC	•	IP20 / IP20
RJ45S-RJ45S-841-1M	6603714	841	PVC	•	IP20 / IP20
RJ45S-RJ45S-841-2M	6603715	841	PVC	•	IP20 / IP20
RJ45S-RJ45S-841-4M	6603716	841	PVC	•	IP20 / IP20
RJ45S-RJ45S-841-6M	6603717	841	PVC	•	IP20 / IP20
RJ45S-RJ45S-841-10M	6603718	841	PVC	•	IP20 / IP20
RJ45S-RJ45S-843-15M	6611005	843	PVC	–	IP20 / IP20
RJ45S-RJ45S-843-30M	6611006	843	PVC	–	IP20 / IP20
RSS-RJ45S-841-0,5M	6603721	841	PVC	•	IP67 / IP20
RKS-RJ45S-841-0,5M	6603722	841	PVC	•	IP67 / IP20
FSSD-841-0,5M	6603723	841	PVC	•	IP67 / –
FKSD-841-0,5M	6603724	841	PVC	•	IP67 / –
RSS-FSSD-841-0,5M	6603725	841	PVC	•	IP67 / IP67
RSS-FKSD-841-0,5M	6603726	841	PVC	•	IP67 / IP67
RJ45S-FSSD-841-0,5M	6603727	841	PVC	•	IP20 / IP67
RJ45S-FKSD-841-0,5M	6603728	841	PVC	•	IP20 / IP67

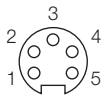
Vorkonfektionierte Versorgungskabel, 5 x 1,5 mm², Typ 52
Premoulded Power Cables, 5 x 1,5 mm², Type 52

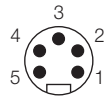
Konfektionierbare Steckverbinder siehe Seite A4 – 4
Field wireable connectors see page A4 – 4

Abmessungen/Bauform Dimensions/Housing style [mm]	Anschluss Connection	Steckverbinderausführung/ Maßbild Connector type/ dimension drawing	Kabellänge Cable length [m]
Kabel-Meterware Bulk cable		–	30
		–	150
		–	500
 **(A)**	**7/8“**		
		(A)	6
		(A)	10
		(A)	15
		(B)	6
		(B)	10
		(B)	15
		(A) + (B)	0,3
		(A) + (B)	0,5
		(A) + (B)	1
		(A) + (B)	2
		(A) + (B)	4
		(A) + (B)	6
		(A) + (B)	10
		(A) + (B)	15
		(A) + (B)	30
 **(B)**	**7/8“**		
 **(C)**	**7/8“**		
		(C)	6
		(C)	10
		(C)	15
		(D)	6
		(D)	10
		(D)	15
		(C) + (D)	0,3
		(C) + (D)	0,5
		(C) + (D)	1
		(C) + (D)	2
		(C) + (D)	4
		(C) + (D)	6
		(C) + (D)	10
		(C) + (D)	15
		(C) + (D)	30
 **(D)**	**7/8“**		

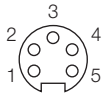


1 = BK (GND)
2 = BU (GND)
3 = GN/YE (PE)
4 = BN (U_B)
5 = WH (U_L)





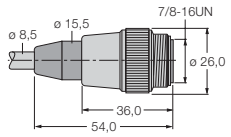
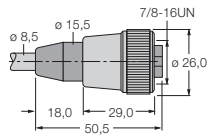
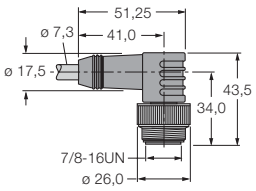
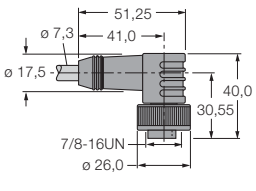
1 = BK (GND)
2 = BU (GND)
3 = GN/YE (PE)
4 = BN (U_B)
5 = WH (U_L)



Typenbezeichnung Type	Ident-Nr. Ident No.	Kabeltyp Cable type	Material Kabelmantel Material cable jacket	Schleppkettenfähig Suited to trailing applications	Schutzart Degree of protection
KABEL-PDP-52-30M	6604701	52	PUR	•	–
KABEL-PDP-52-150M	6604703	52	PUR	•	–
KABEL-PDP-52-500M	6604706	52	PUR	•	–
RSM52-6M	6914142	52	PUR	•	IP67
RSM52-10M	6914143	52	PUR	•	IP67
RSM52-15M	6914144	52	PUR	•	IP67
RKM52-6M	6914145	52	PUR	•	IP67
RKM52-10M	6914146	52	PUR	•	IP67
RKM52-15M	6914147	52	PUR	•	IP67
RKM52-0,3-RSM52	6604743	52	PUR	•	IP67
RKM52-0,5-RSM52	6914148	52	PUR	•	IP67
RKM52-1-RSM52	6914149	52	PUR	•	IP67
RKM52-2-RSM52	6914150	52	PUR	•	IP67
RKM52-4-RSM52	6914151	52	PUR	•	IP67
RKM52-6-RSM52	6914152	52	PUR	•	IP67
RKM52-10-RSM52	6914153	52	PUR	•	IP67
RKM52-15-RSM52	6914154	52	PUR	•	IP67
RKM52-30-RSM52	6914306	52	PUR	•	IP67
WSM52-6M	6604788	52	PUR	•	IP67
WSM52-10M	6604790	52	PUR	•	IP67
WSM52-15M	6604791	52	PUR	•	IP67
WKM52-6M	6604770	52	PUR	•	IP67
WKM52-10M	6604772	52	PUR	•	IP67
WKM52-15M	6604773	52	PUR	•	IP67
WKM52-0,3-WSM52	6604797	52	PUR	•	IP67
WKM52-0,5-WSM52	6604798	52	PUR	•	IP67
WKM52-1-WSM52	6604799	52	PUR	•	IP67
WKM52-2-WSM52	6604801	52	PUR	•	IP67
WKM52-4-WSM52	6604804	52	PUR	•	IP67
WKM52-6-WSM52	6604806	52	PUR	•	IP67
WKM52-10-WSM52	6604808	52	PUR	•	IP67
WKM52-15-WSM52	6604809	52	PUR	•	IP67
WKM52-30-WSM52	6604812	52	PUR	•	IP67

Vorkonfektionierte Versorgungskabel, 4 x 1,5 mm², Typ 43
Premoulded Power Cables, 4 x 1,5 mm², Type 43

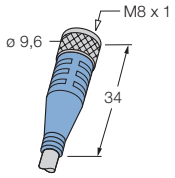
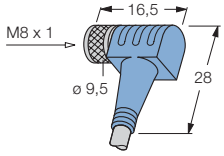
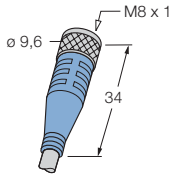
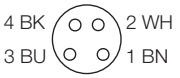
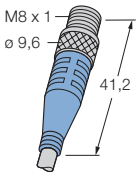
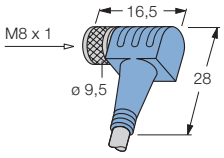
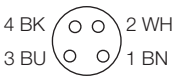
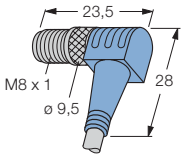
Konfektionierbare Steckverbinder siehe Seite A4 – 8
Field wireable connectors see page A4 – 8

Abmessungen/Bauform Dimensions/Housing style [mm]	Anschluss Connection	Steckverbinderausführung/ Maßbild Connector type/ dimension drawing	Kabellänge Cable length [m]
Kabel-Meterware		–	30
Bulk cable		–	150
		–	500
 **(A)**	**7/8“**	 1 = RD (Aux +) 2 = GN (E +) 3 = WH (E –) 4 = BK (Aux –)	(A) 6 (A) 10 (A) 15 (B) 6 (B) 10 (B) 15 (A) + (B) 0,3 (A) + (B) 0,5 (A) + (B) 1 (A) + (B) 2 (A) + (B) 4 (A) + (B) 6 (A) + (B) 10 (A) + (B) 15
 **(B)**	**7/8“**		
 **(C)**	**7/8“**	 1 = RD (Aux +) 2 = GN (E +) 3 = WH (E –) 4 = BK (Aux –)	(C) 6 (C) 10 (C) 15 (D) 6 (D) 10 (D) 15 (C) + (D) 0,3 (C) + (D) 0,5 (C) + (D) 1 (C) + (D) 2 (C) + (D) 4 (C) + (D) 6 (C) + (D) 10 (C) + (D) 15
 **(D)**	**7/8“**		

Typenbezeichnung Type	Ident-Nr. Ident No.	Kabeltyp Cable type	Material Kabelmantel Material cable jacket	Schleppkettenfähig Suited to trailing applications	Schutzart Degree of protection
KABEL-DN-43-30M	6915800	43	PUR	•	–
KABEL-DN-43-150M	6915802	43	PUR	•	–
KABEL-DN-43-500M	6915805	43	PUR	•	–
RSM43-6M	6915621	43	PUR	•	IP67
RSM43-10M	6915622	43	PUR	•	IP67
RSM43-15M	6915623	43	PUR	•	IP67
RKM43-6M	6914307	43	PUR	•	IP67
RKM43-10M	6913941	43	PUR	•	IP67
RKM43-15M	6914310	43	PUR	•	IP67
RKM43-0,3-RSM43	6914319	43	PUR	•	IP67
RKM43-0,5-RSM43	6914311	43	PUR	•	IP67
RKM43-1-RSM43	6914312	43	PUR	•	IP67
RKM43-2-RSM43	6914313	43	PUR	•	IP67
RKM43-4-RSM43	6914314	43	PUR	•	IP67
RKM43-6-RSM43	6914315	43	PUR	•	IP67
RKM43-10-RSM43	6914316	43	PUR	•	IP67
RKM43-15-RSM43	6914317	43	PUR	•	IP67
WSM43-6M	6915844	43	PUR	•	IP67
WSM43-10M	6915845	43	PUR	•	IP67
WSM43-15M	6915846	43	PUR	•	IP67
WKM43-6M	6913940	43	PUR	•	IP67
WKM43-10M	6913941	43	PUR	•	IP67
WKM43-15M	6913942	43	PUR	•	IP67
WKM43-0,3-WSM43	6913948	43	PUR	•	IP67
WKM43-0,5-WSM43	6913949	43	PUR	•	IP67
WKM43-1-WSM43	6913950	43	PUR	•	IP67
WKM43-2-WSM43	6913951	43	PUR	•	IP67
WKM43-4-WSM43	6913916	43	PUR	•	IP67
WKM43-6-WSM43	6913918	43	PUR	•	IP67
WKM43-10-WSM43	6913917	43	PUR	•	IP67
WKM43-15-WSM43	6914328	43	PUR	•	IP67

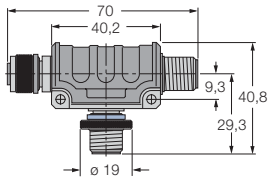
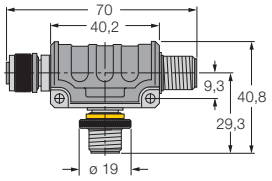
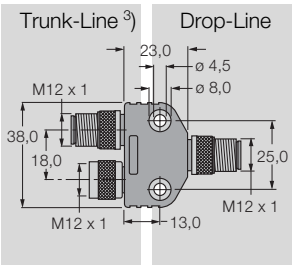
Vorkonfektionierte Versorgungskabel, 4 x 0,34 mm²
Premoulded Power Cables 4 x 0,34 mm²

Konfektionierbare Steckverbinder siehe Seite A5 – 12
Field wireable connectors see page A5 – 12

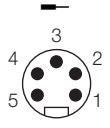
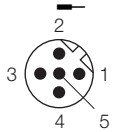
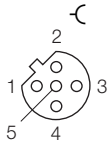
Abmessungen/Bauform Dimensions/Housing style [mm]			Anschluss Connection	Steckverbinderausführung/ Maßbild Connector type/ dimension drawing	Kabellänge Cable length [m]
 **(A)**	**M8 x 1**			(A)	2
				(A	5
				(A)	10
 **(B)**	**M8 x 1**			(B)	2
				(B)	5
				(B)	10
 **(A)**	**M8 x 1**			(A) + (C)	0,15
				(A) + (C)	0,5
				(A) + (C)	1
				(A) + (C)	2
				(A) + (C)	5
 **(C)**	**M8 x 1**				
 **(B)**	**M8 x 1**			(B) + (D)	0,15
				(B) + (D)	0,5
				(B) + (D)	1
				(B) + (D)	2
				(B) + (D)	5
 **(D)**	**M8 x 1**				

Typenbezeichnung Type	Ident-Nr. Ident No.	Kabeltyp Cable type	Material Kabelmantel Material cable jacket	Schleppkettenfähig Suited to trailing applications	Schutzart Degree of protection
IPSKP4-2/S90	6900323	–	PUR	–	–
IPSKP4-5/S90	6900325	–	PUR	–	–
IPSKP4-10/S90	6900321	–	PUR	–	–
IPSWKP4-2/S90	6900331	–	PUR	–	–
IPSWKP4-5/S90	6900333	–	PUR	–	–
IPSWKP4-10/S90	6900329	–	PUR	–	–
IPSKP4-0,15-SSP4/S90	6900334	–	PUR	–	IP67
IPSKP4-0,5-SSP4/S90	6900320	–	PUR	–	IP67
IPSKP4-1-SSP4/S90	6900322	–	PUR	–	IP67
IPSKP4-2-SSP4/S90	6900324	–	PUR	–	IP67
IPSKP4-5-SSP4/S90	6900326	–	PUR	–	IP67
IPSWKP4-0,15-SWSP4/S90	6900327	–	PUR	–	IP67
IPSWKP4-0,5-SWSP4/S90	6900328	–	PUR	–	IP67
IPSWKP4-1-SWSP4/S90	6900330	–	PUR	–	IP67
IPSWKP4-2-SWSP4/S90	6900332	–	PUR	–	IP67
IPSWKP4-5-SWSP4/S90	6900319	–	PUR	–	IP67

T-Stücke/Y-Stücke für PROFIBUS-DP
T-pieces/Y-pieces for PROFIBUS-DP

Abmessungen Dimensions	Anwendung Application	Verbindungs-technik Connection Fig. (Fxxx)	Typenbezeichnung Type	Ident-Nr. Ident no.
(F030) (F048)  (F048)	T-Stück für Bus, komplett geschirmt, 12 MBit/s, direkte Kopplung mehrerer T-Stücke nicht möglich Bus tee, completely shielded, 12 MBit/s, direct coupling of multiple tees not possible	2 x M12 (F048) 1 x M12 (F030)	**RKSWS4.5[5]-2RSSWS**	6999021
(F030) (F008)  (F048)	T-Stück für Bus, komplett geschirmt, 12 MBit/s, direkte Kopplung mehrerer T-Stücke möglich Bus tee, completely shielded, 12 MBit/s, direct coupling of multiple tees possible	1 x M12 (F008) 1 x M12 (F030) 1 x M12 (F048)	**RKSW-2RSSW45-0001**	6914180
Trunk-Line [3] Drop-Line  	Y-Stück für Bus, komplett geschirmt, 12 MBit/s, Y piece for bus, completely shielded, 12 MBit/s	2 x M12 (F048) 1 x M12 (F030)	**VB2-FSW-FKW-FSW45**	6996009

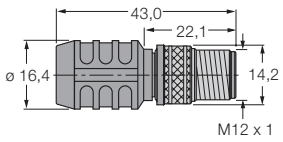
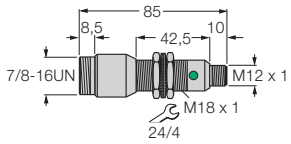
Anschlussbelegung
Pin Configuration

(F006A)	**(F008)**[1]	**(F030)**[1]	
 1 = n. c. 2 = GND 3 = n. c. 4 = U_B 5 = n. c.	 1 = n. c. 2 = Bus - A 3 = n . c. 4 = Bus - B 5 = Shield	 1 = 5 VDC 2 = Bus - A 3 = GND 4 = Bus - B 5 = Shield	

[1] Invers codiert nach PNO-Richtlinie / Reverse-keyed acc. to PNO guidelines

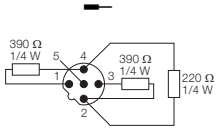
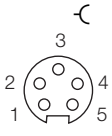
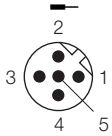
Abschlusswiderstände für PROFIBUS-DP
Terminating Resistors for PROFIBUS-DP

Industrial Automation

Abmessungen Dimensions	Anwendung Application	Verbindungs-technik Connection Fig. (Fxxx)	Typenbezeichnung Type	Ident-Nr. Ident no.
	Passiver Abschlusswiderstand Passive terminating resistor	1 x M12 (F035)	**RSS4.5-PDP-TR**	6601590
	Aktiver Abschlusswiderstand Active terminating resistor	1 x M12 (F035) 1 x 7/8“ (F006A)	**PDP-TRA**	6825346

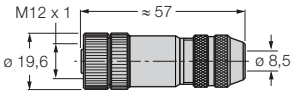
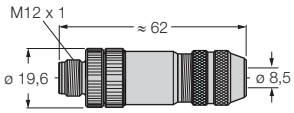
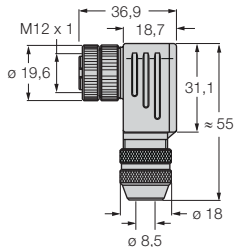
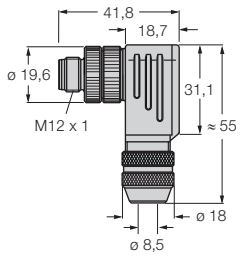
A3

Anschlussbelegung
Pin Configuration

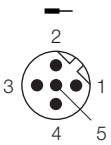
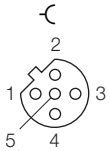
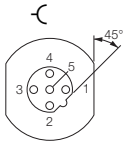
(F035)[1]	**(F037)**	**(F048)**[1]	
			
1 = 5 VDC[2] 2 = Bus - A 3 = GND 4 = Bus - B 5 = Shield	1 = GND 2 = GND 3 = PE 4 = U_B 5 = U_L	1 = 5 VDC 2 = Bus - A 3 = GND 4 = Bus - B 5 = Shield	

[2] Nur an Bus-Kupplung / Female bus connector only
[3] Anschluss von zwei konfektionierbaren Steckverbindern an der Trunk-Line nicht möglich/Connection of two field wireable connectors to the trunk line not possible

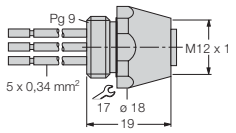
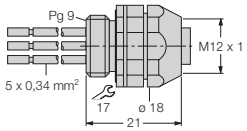
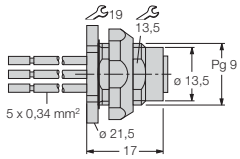
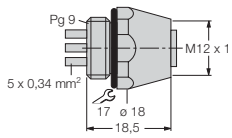
Konfektionierbare Steckverbinder für PROFIBUS-DP
Field wireable Connectors for PROFIBUS-DP

Abmessungen Dimensions	Anwendung Application	Verbindungs-technik Connection Fig. (Fxxx)	Typenbezeichnung Type	Ident-Nr. Ident no.
	Konfektionierbare M12-Kupplung, gerade, schirmbar Field wireable female M12 connector, straight, shieldable	1 x M12 (F034)	**BMWS 8151-8,5**	6904721
	Konfektionierbarer M12-Stecker, gerade, schirmbar Field wireable male M12 connector, straight, shieldable	1 x M12 (F008)	**BMSWS 8151-8,5**	6904722
	Konfektionierbare M12-Kupplung, abgewinkelt, schirmbar Field wireable female M12 connector, right-angle, shieldable	1 x M12 (F034)	**BMWS 8251-8,5**	6904723
	Konfektionierbarer M12-Stecker, abgewinkelt, schirmbar Field wireable male M12 connector, right-angle, shieldable	1 x M12 (F008)	**BMSWS 8251-8,5**	6904724

Anschlussbelegung
Pin Configuration

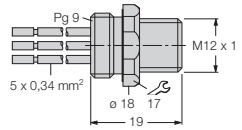
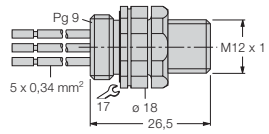
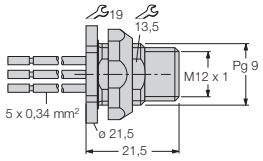
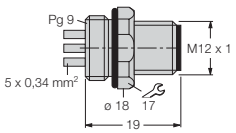
(F008)[1]	**(F034)**[1]	**(F034B)**[1]	
 1 = n. c. 2 = Bus - A 3 = n. c. 4 = Bus - B 5 = Shield	 1 = n. c. 2 = Bus - A 3 = n. c. 4 = Bus - B 5 = Shield	 1 = n. c. 2 = Bus - A 3 = n. c. 4 = Bus - B 5 = Shield	

[1] Invers codiert nach PNO-Richtlinie / Reverse-keyed acc. to PNO guidelines

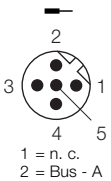
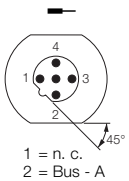
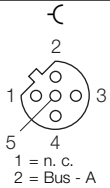
Abmessungen Dimensions	Anwendung Application	Verbindungs-technik Connection Fig. (Fxxx)	Typenbezeichnung Type	Ident-Nr. Ident no.
	Flansch, M12-Kupplung, frontseitig schraubbar, invers codiert, 0,5 m Litze M12 female flange connector, front panel screw mounting, reverse-keyed, 0.5 m litz wire	1 x M12 (F034)	**FKW4.54-0,5**	8016042
	Flansch, M12-Kupplung, frontseitig schraubbar, invers codiert, drehbar, 0,5 m Litze M12 female connector flange connector, rotable, front panel screw mounting, reverse-keyed, 0.5 m litz wire	1 x M12 (F034)	**FKDW4.54-0,5**	8015777
	Flansch, M12-Kupplung, Rückwandmontage, invers codiert, 0,5 m Litze M12 female flange connector, back panel screw mounting, reverse-keyed, 0.5 m litz wire	1 x M12 (F034B)	**FKFDW4.54-0,5**	8016041
	Flansch, M12-Kupplung, frontseitig schraubbar, invers codiert M12 female flange connector, front panel screw mounting, reverse-keyed	1 x M12 (F034)	**FKW5L**	8016718

A3

Flansche für PROFIBUS-DP
Flange Connectors for PROFIBUS-DP

Abmessungen Dimensions	Anwendung Application	Verbindungs-technik Connection Fig. (Fxxx)	Typenbezeichnung Type	Ident-Nr. Ident no.
	Flansch, M12-Stecker, frontseitig schraubbar, invers codiert, 0,5 m Litze M12 male flange connector, front panel screw mounting, reverse-keyed, 0.5 m litz wire	1 x M12 (F008)	**FSW4.54-0,5**	8016038
	Flansch, M12-Stecker, frontseitig schraubbar, invers codiert, drehbar, 0,5 m Litze M12 male flange connector, rotable, front panel screw mounting, reverse-keyed, 0.5 m litz wire	1 x M12 (F008)	**FSDW4.54-0,5**	8015776
	Flansch, M12-Stecker, Rückwandmontage, invers codiert, 0,5 m Litze M12 male flange connector, back panel screw mounting, reverse-keyed, 0.5 m litz wire	1 x M12 (F008B)	**FSFDW4.54-0,5**	8016043
	Flansch, M12-Stecker, frontseitig schraubbar, invers codiert M12 male flange connector, rotable, front panel screw mounting, reverse-keyed	1 x M12 (F008)	**FSW5L**	8016717

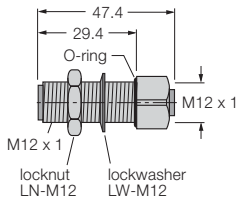
Anschlussbelegung
Pin Configuration

(F008)[1]	**(F008B)**[1]	**(F034)**[1]	
 1 = n. c. 2 = Bus - A 3 = n. c. 4 = Bus - B 5 = Shield	 1 = n. c. 2 = Bus - A 3 = n. c. 4 = Bus - B 5 = Shield	 1 = n. c. 2 = Bus - A 3 = n. c. 4 = Bus - B 5 = Shield	

[1] Invers codiert nach PNO-Richtlinie / Reverse-keyed acc. to PNO guidelines

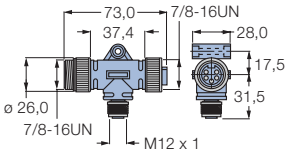
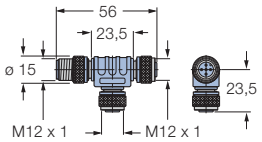
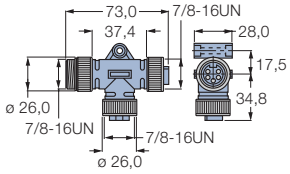
Durchführungen für PROFIBUS-DP
Feed-through Receptacles for PROFIBUS-DP

Industrial Automation

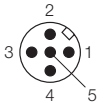
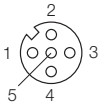
Abmessungen Dimensions	Anwendung Application	Verbindungs-technik Connection Fig. (Fxxx)	Typenbezeichnung Type	Ident-Nr. Ident no.
	M12-Durchführung, gerader Stecker/Kupplung, für invers codierte M12-Buskabel Feed-through receptacle, M12, straight male/female connector, for premoulded, reverse-keyed M12 bus cables	1 x M12 (F008) 1 x M12 (F034)	**FKW-FSW-45-M12**	6602309

A3

T-Stücke für CAN (DeviceNet™, CANopen)
T-pieces for CAN (DeviceNet™, CANopen)

Abmessungen Dimensions	Anwendung Application	Verbindungs-technik Connection Fig. (Fxxx)	Typenbezeichnung Type	Ident-Nr. Ident no.
	T-Stück (7/8“/M12) für Bus und Versorgung Tee (7/8“/M12) for bus and power	1 x 7/8“ (F006) 1 x 7/8“ (F037) 1 x M12 (F032)	**RSM-FKM-RKM57**	6602392
	T-Stück (M12/M12) für Bus und Versorgung Tee (M12/M12) for bus and power	2 x M12 (F032) 1 x M12 (F008)	**FSM-2FKM57**	8011661
	T-Stück (7/8“/7/8“) für Bus und Versorgung Tee (7/8“/7/8“) for bus and power	1 x 7/8“ (F006) 2 x 7/8“ (F037)	**RSM-2RKM57**	6602007

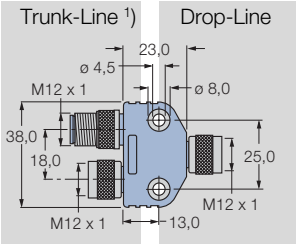
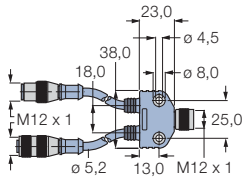
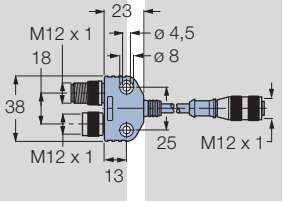
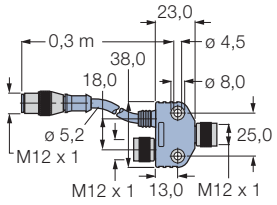
Anschlussbelegung
Pin Configuration

(F006)	(F031)	(F032)	(F037)
			
1 = Shield 2 = V + 3 = V – 4 = CAN_H 5 = CAN_L	1 = Shield 2 = V + 3 = V – 4 = CAN_H 5 = CAN_L	1 = Shield 2 = V + 3 = V – 4 = CAN_H 5 = CAN_L	1 = Shield 2 = V + 3 = V – 4 = CAN_H 5 = CAN_L

[1]) Anschluss von zwei konfektionierbaren Steckverbindern an der Trunk-Line nicht möglich/Connection of two field wireable connectors to the trunk line not possible

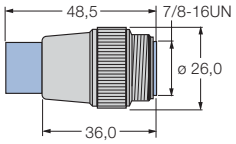
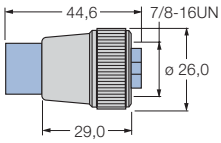
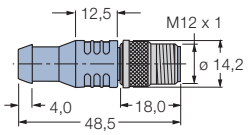
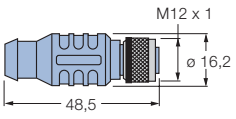
Y-Stücke für CAN (DeviceNet™, CANopen)
Y-pieces for CAN (DeviceNet™, CANopen)

Industrial Automation

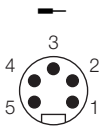
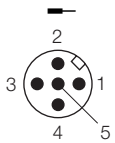
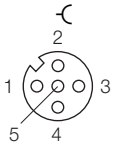
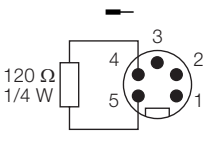
Abmessungen Dimensions	Anwendung Application	Verbindungs-technik Connection Fig. (Fxxx)	Typenbezeichnung Type	Ident-Nr. Ident no.
Trunk-Line [1] / Drop-Line 	Y-Stück für Bus [1] Y piece for bus [1]	2 x M12 (F032) 1 x M12 (F031)	**VB2-FKM-FKM-FSM57**	6602331
	Y-Stück für Bus Y piece for bus	2 x M12 (F032) 1 x M12 (F031)	**VB2-FKM-RKC-RSC572-0,5M-0,5M**	6602490
Trunk-Line [1] / Drop-Line 	Y-Stück für Bus und Versorgung [1] Y piece for bus and power [1]	2 x M12 (F032) 1 x M12 (F031)	**VB2-RKC572-1M-FKM-FSM**	6996011
	Y-Stück für Bus und Versorgung Y piece for bus and power	2 x M12 (F032) 1 x M12 (F031)	**VB2-FKM-FKM-RSC572-1M**	6602613

A3

Abschlusswiderstände für CAN (DeviceNet™, CANopen)
Terminating Resistors for CAN (DeviceNet™, CANopen)

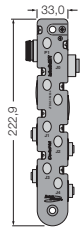
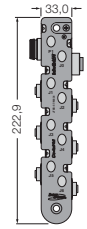
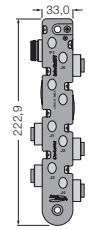
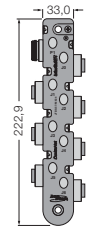
Abmessungen Dimensions	Anwendung Application	Verbindungs-technik Connection Fig. (Fxxx)	Typenbezeichnung Type	Ident-Nr. Ident no.
	Abschlusswiderstand (Stecker) Terminating resistor (male connector)	1 x 7/8“ (F036A)	**RSM57-TR2**	6602011
	Abschlusswiderstand (Kupplung) Terminating resistor (female connector)	1 x 7/8“ (F036B)	**RKM57-TR2**	6602065
	Abschlusswiderstand (Stecker) Terminating resistor (male connector)	1 x M12 (F038A)	**RSE57-TR2**	6602308
	Abschlusswiderstand (Kupplung) Terminating resistor (female connector)	1 x M12 (F038B)	**RKE57-TR2**	6602629

Anschlussbelegung
Pin Configuration

(F006)	(F031)	(F032)	(F036A)
			
1 = Shield 2 = V + 3 = V – 4 = CAN_H 5 = CAN_L	1 = Shield 2 = V + 3 = V – 4 = CAN_H 5 = CAN_L	1 = Shield 2 = V + 3 = V – 4 = CAN_H 5 = CAN_L	1 = Shield 2 = V + 3 = V – 4 = CAN_H 5 = CAN_L

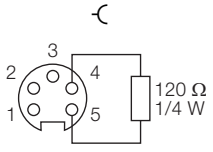
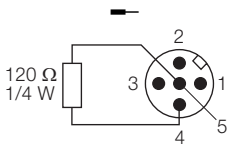
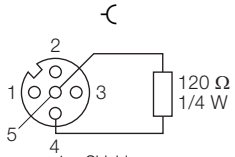
Passiv-Verteiler für CAN (DeviceNet™, CANopen)
Junction Tees for CAN (DeviceNet™, CANopen)

Industrial Automation

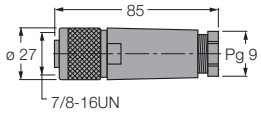
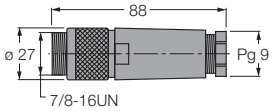
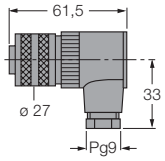
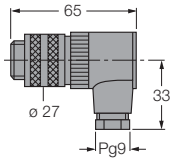
Abmessungen Dimensions	Anwendung Application	Verbindungs-technik Connection Fig. (Fxxx)	Typenbezeichnung Type	Ident-Nr. Ident no.
	4fach-Passiv-Verteiler, IP67 4-port passive multiport junction, IP67	1 x 7/8“ (F006) 1 x 7/8“ (F037) 4 x M12 (F032)	**JTBS57-E434**	6603554
	6fach-Passiv-Verteiler, IP67 6-port passive multiport junction, IP67	1 x 7/8“ (F006) 1 x 7/8“ (F037) 6 x M12 (F032)	**JTBS57-E634**	6603555
	4fach-Passiv-Verteiler, IP67 4-port passive multiport junction, IP67	1 x 7/8“ (F006) 5 x 7/8“ (F037)	**JTBS57-M434**	6603556
	6fach-Passiv-Verteiler, IP67 6-port passive multiport junction, IP67	1 x 7/8“ (F006) 7 x 7/8“ (F037)	**JTBS57-M634**	6603557

A3

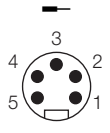
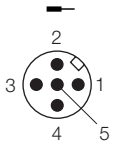
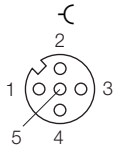
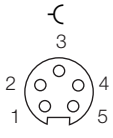
Anschlussbelegung
Pin Configuration

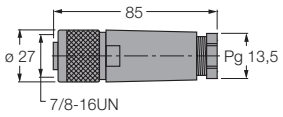
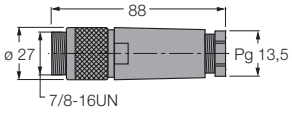
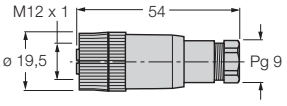
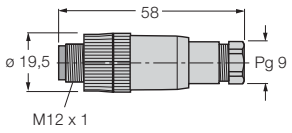
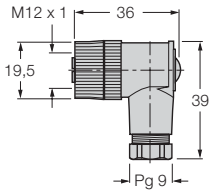
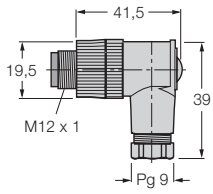
(F036B)	(F038A)	(F038B)	
 1 = Shield 2 = V + 3 = V – 4 = CAN_H 5 = CAN_L	 1 = Shield 2 = V + 3 = V – 4 = CAN_H 5 = CAN_L	 1 = Shield 2 = V + 3 = V – 4 = CAN_H 5 = CAN_L	

Konfektionierbare Steckverbinder für CAN (DeviceNet™, CANopen)
Field wireable Connectors for CAN (DeviceNet™, CANopen)

Abmessungen Dimensions	Anwendung Application	Verbindungs-technik Connection Fig. (Fxxx)	Typenbezeichnung Type	Ident-Nr. Ident no.
	Konfektionierbare 7/8“-Kupplung, gerade, Kabelauslass Pg9, max. Kabeldurchmesser: 6...8 mm Field wireable female 7/8“ connector, straight, cable outlet Pg9, max. cable diameter: 6...8 mm	1 x 7/8“ (F037)	**B4151-0/9**	6904717
	Konfektionierbarer 7/8“-Stecker, gerade, Kabelauslass Pg9, max. Kabeldurchmesser: 6...8 mm Field wireable male 7/8“ connector, straight, cable outlet Pg9, max. cable diameter: 6...8 mm	1 x 7/8“ (F006)	**BS4151-0/9**	6904718
	Konfektionierbare 7/8“-Kupplung, abgewinkelt, Kabelauslass Pg9, max. Kabeldurchmesser: 6...8 mm Field wireable female 7/8“ connector, right-angle, cable outlet Pg9, max. cable diameter: 6...8 mm	1 x 7/8“ (F037)	**B4251-0/9**	6901113
	Konfektionierbarer 7/8“-Stecker, abgewinkelt, Kabelauslass Pg9, max. Kabeldurchmesser: 6...8 mm Field wireable male 7/8“ connector, right-angle, cable outlet Pg9 max. cable diameter: 6...8 mm	1 x 7/8“ (F006)	**BS4251-0/9**	6901112

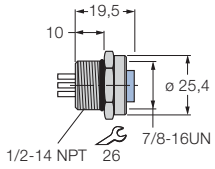
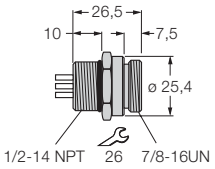
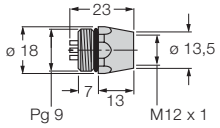
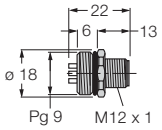
Anschlussbelegung
Pin Configuration

(F006)	(F031)	(F032)	(F037)
			
1 = Shield 2 = V + 3 = V – 4 = CAN_H 5 = CAN_L	1 = Shield 2 = V + 3 = V – 4 = CAN_H 5 = CAN_L	1 = Shield 2 = V + 3 = V – 4 = CAN_H 5 = CAN_L	1 = Shield 2 = V + 3 = V – 4 = CAN_H 5 = CAN_L

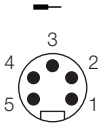
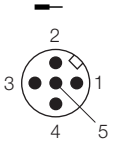
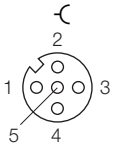
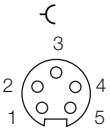
Abmessungen Dimensions	Anwendung Application	Verbindungs-technik Connection Fig. (Fxxx)	Typenbezeichnung Type	Ident-Nr. Ident no.
	Konfektionierbare 7/8“-Kupplung, gerade, Kabelauslass Pg13,5, max. Kabeldurchmesser: 10...14 mm Field wireable female 7/8“ connector, straight, cable outlet Pg13,5, max. cable diameter: 10...14 mm	1 x 7/8“ (F037)	**B4151-0/13,5**	6904715
	Konfektionierbarer 7/8“-Stecker, gerade, Kabelauslass Pg13,5, max. Kabeldurchmesser: 10...14 mm Field wireable male 7/8“ connector, straight, cable outlet Pg13,5, max. cable diameter: 10...14 mm	1 x 7/8“ (F006)	**BS4151-0/13,5**	6904716
	Konfektionierbare M12 x 1-Kupplung, gerade, Kabelauslass Pg9, max. Kabeldurchmesser: 6...8 mm Field wireable female M12 x 1 connector, straight, cable outlet Pg9, max. cable diameter: 6...8 mm	1 x M12 (F032)	**B8151-0/9**	6904604
	Konfektionierbarer M12 x 1-Stecker, gerade, Kabelauslass Pg9, max. Kabeldurchmesser: 6...8 mm Field wireable male M12 x 1 connector, straight, cable outlet Pg9, max. cable diameter: 6...8 mm	1 x M12 (F031)	**BS8151-0/9**	6904613
	Konfektionierbare M12 x 1-Kupplung, abgewinkelt, Kabelauslass Pg9, max. Kabeldurchmesser: 6...8 mm Field wireable female M12 x 1 connector, right-angled, cable outlet Pg9, max. cable diameter: 6...8 mm	1 x M12 (F032)	**B8251-0/9**	6904603
	Konfektionierbarer M12 x 1-Stecker, abgewinkelt, Kabelauslass Pg9, max. Kabeldurchmesser: 6...8 mm Field wireable male M12 x 1 connector, right-angled, cable outlet Pg9, max. cable diameter: 6...8 mm	1 x M12 (F031)	**BS8251-0/9**	6904615

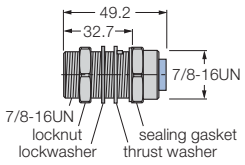
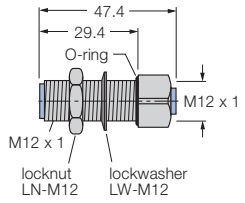
A3

Flansche für CAN (DeviceNet™, CANopen)
Flange Connectors for CAN (DeviceNet™, CANopen)

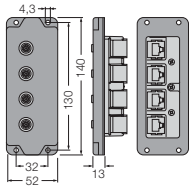
Abmessungen Dimensions	Anwendung Application	Verbindungs-technik Connection Fig. (Fxxx)	Typenbezeichnung Type	Ident-Nr. Ident no.
	Lötbare 7/8"-Kupplung, gerade Kupplung, zur Verwendung mit dünnen und mittleren CAN-Kabeln 7/8" field solderable receptacle, straight female connector, for use with CAN thin and mid cables	1 x 7/8“ (F037)	**RKF57**	6602217
	Lötbarer 7/8"-Stecker, gerader Stecker, zur Verwendung mit dünnen und mittleren CAN-Kabeln 7/8" field solderable receptacle, straight male connector, for use with CAN thin and mid cables	1 x 7/8“ (F006)	**RSF57**	6902342
	Lötbare M12-Kupplung, gerade Kupplung, zur Verwendung mit dünnen CAN-Kabeln M12 field solderable receptacle, straight female connector, for use with CAN thin cables	1 x M12 (F032)	**FK57**	6602216
	Lötbarer M12-Stecker, gerader Stecker, zur Verwendung mit dünnen CAN-Kabeln M12 field solderable receptacle, straight male connector, for use with CAN thin cables	1 x M12 (F031)	**FS57**	6902314

Anschlussbelegung
Pin Configuration

(F006)	(F031)	(F032)	(F037)
			
1 = Shield 2 = V + 3 = V – 4 = CAN_H 5 = CAN_L	1 = Shield 2 = V + 3 = V – 4 = CAN_H 5 = CAN_L	1 = Shield 2 = V + 3 = V – 4 = CAN_H 5 = CAN_L	1 = Shield 2 = V + 3 = V – 4 = CAN_H 5 = CAN_L

Abmessungen Dimensions	Anwendung Application	Verbindungs-technik Connection Fig. (Fxxx)	Typenbezeichnung Type	Ident-Nr. Ident no.
	7/8"-Durchführung, gerader Stecker/ Kupplung, zur Verwendung mit vorkonfektionierten 7/8"-Kabeln 7/8" bulkhead receptacle, straight male/ female feed-thru, for use with 7/8" cordsets	1 x 7/8“ (F006) 1 x 7/8“ (F037)	**RSF-RKF-57/22**	6602218
	M12-Durchführung, gerader Stecker/ Kupplung, zur Verwendung mit vorkonfektionierten M12-Kabeln M12 bulkhead receptacle, straight male/ female feed-thru, for use with M12 cordsets	1 x M12 (F031) 1 x M12 (F032)	**FKM-FS57-M12**	6602223

M12/RJ45-Umsetzer für Ethernet
M12/RJ45 Adapter for Ethernet

Abmessungen Dimensions	Anwendung Application	Verbindungs-technik Connection Fig. (Fxxx)	Typenbezeichnung Type	Ident-Nr. Ident no.
	Vierkanaliger M12/RJ45-Adapter, Schnittstelle zwischen IP20- und IP67-Umgebung Four-channel M12/RJ45-adapter, interface between IP 20 and IP67 environments	1 x M12 (F049) 1 x RJ45 (F050)	**BIC-84-E424**	6604474

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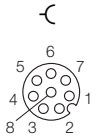
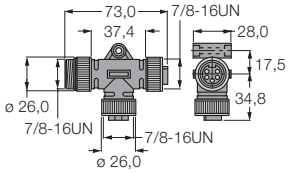
Anschlussbelegung
Pin Configuration

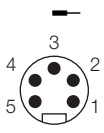
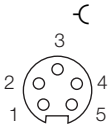
(F049)	**(F050)**		
			
1 = n. c. 2 = n. c.. 3 = n. c. 4 = Tx – 5 = RX + 6 = TX + 7 = n. c. 8 = RX –	1 = TX + 2 = TX – 3 = RX + 4 = n. c. 5 = n. c. 6 = RX – 7 = n. c. 8 = n. c.		

T-Stücke für Versorgungskabel, 5 x 1,5 mm², Typ 52
T-pieces for Power Cables, 5 x 1,5 mm², Type 52

Industrial Automation

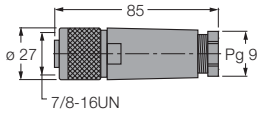
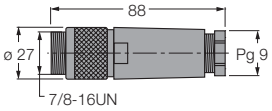
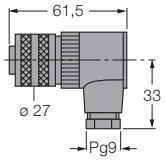
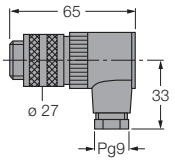
Abmessungen Dimensions	Anwendung Application	Verbindungs-technik Connection Fig. (Fxxx)	Typenbezeichnung Type	Ident-Nr. Ident no.
	T-Stück für Versorgung Power tee	2 x 7/8“ (F037) 1 x 7/8“ (F006B)	**RSM-2RKM50**	6914950

Anschlussbelegung
Pin Configuration

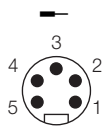
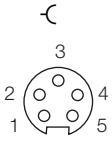
(F006B)	(F037)	
 1 = GND 2 = GND 3 = PE 4 = U_B 5 = U_L	 1 = GND 2 = GND 3 = PE 4 = U_B 5 = U_L	

A4

Konfektionierbare Steckverbinder für Versorgungskabel, 5 x 1,5 mm², Typ 52
Field wireable Connectors for Power Cables, 5 x 1,5 mm², Type 52

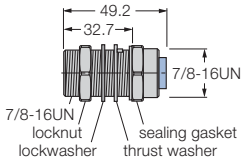
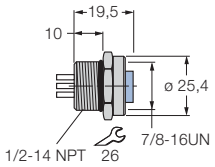
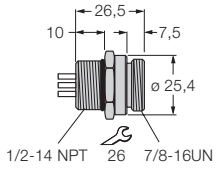
Abmessungen Dimensions	Anwendung Application	Verbindungs-technik Connection Fig. (Fxxx)	Typenbezeichnung Type	Ident-Nr. Ident no.
	Konfektionierbare 7/8“-Kupplung, gerade, Kabelauslass Pg9, max. Kabeldurchmesser: 6...8 mm Field wireable female 7/8“ connector, straight, cable outlet Pg9, max. cable diameter 6...8 mm	1 x 7/8“ (F037)	**B4151-0/9**	6904717
	Konfektionierbarer 7/8“-Stecker, gerade, Kabelauslass Pg9, max. Kabeldurchmesser: 6...8 mm Field wireable male 7/8“ connector, straight, cable outlet Pg9, max. cable diameter 6...8 mm	1 x 7/8“ (F006)	**BS4151-0/9**	6904718
	Konfektionierbare 7/8“-Kupplung, abgewinkelt, Kabelauslass Pg9, max. Kabeldurchmesser: 6...8 mm Field wireable female 7/8“ connector, right-angle, cable outlet Pg9, max. cable diameter 6...8 mm	1 x 7/8“ (F037)	**B4251-0/9**	6901113
	Konfektionierbarer 7/8“-Stecker, abgewinkelt, Kabelauslass Pg9, max. Kabeldurchmesser: 6...8 mm Field wireable male 7/8“ connector, right-angle, cable outlet Pg9, max. cable diameter 6...8 mm	1 x 7/8“ (F006)	**BS4251-0/9**	6901112

Anschlussbelegung
Pin Configuration

(F006)	**(F037)**	
 1 = GND 2 = GND 3 = PE 4 = U_B 5 = U_L	 1 = GND 2 = GND 3 = PE 4 = U_B 5 = U_L	

Durchführungen/Flansche für Versorgungskabel, 5 x 1,5 mm², Typ 52
Feed-through Receptacles/Flange Connectors for Power Cables, 5 x 1,5 mm², Type 52

TURCK
Industrial Automation

Abmessungen Dimensions	Anwendung Application	Verbindungs-technik Connection Fig. (Fxxx)	Typenbezeichnung Type	Ident-Nr. Ident no.
	7/8"-Durchführung, gerader Stecker/ Kupplung, zur Verwendung mit vor-konfektionierten 7/8"-Kabeln 7/8" bulkhead receptacle, straight male/ female feed-thru, for use with 7/8" cordsets	1 x 7/8“ (F006) 1 x 7/8“ (F037)	**RSF-RKF-57/22**	6602218
	Lötbarer 7/8“-Flanschstecker 7/8" field solderable receptacle, male connector	1 x 7/8“ (F006)	**RSF57**	6902342
	Lötbare 7/8“-Flanschkupplung 7/8" field solderable receptacle, female connector	1 x 7/8“ (F037)	**RKF57**	6602217

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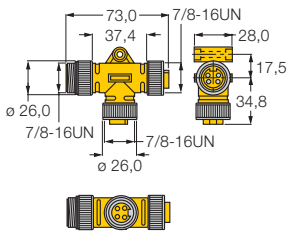
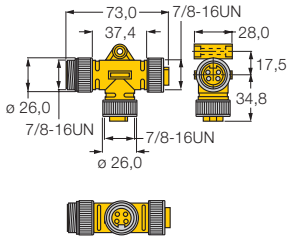
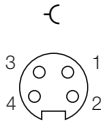
T-Stücke für Versorgungskabel, 4 x 1,5 mm², Typ 43
T-pieces for Power Cables, 4 x 1,5 mm², Type 43

Industrial Automation

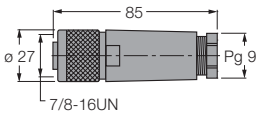
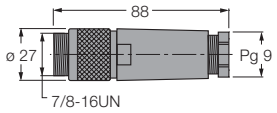
Abmessungen Dimensions	Anwendung Application	Verbindungs-technik Connection Fig. (Fxxx)	Typenbezeichnung Type	Ident-Nr. Ident no.
	T-Stück für Auxiliary-Power Tee for auxiliary power	1 x 7/8“ (F023A) 2 x 7/8“ (F023B)	**RSM-2RKM40**	6914828
	T-Stück für Auxiliary-Power (Keyway facing female) Tee for auxiliary power (Keyway facing female)	1 x 7/8“ (F023A) 2 x 7/8“ (F023B)	**RKM40-RKM40-L-RSM40**	6914866

Anschlussbelegung
Pin Configuration

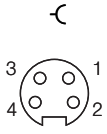
(F023A)	(F023B)	
 1 = Aux + 2 = E + 3 = E - 4 = Aux -	 1 = Aux + 2 = E + 3 = E - 4 = Aux -	

A4

Konfektionierbare Steckverbinder für Versorgungskabel, 4 x 1,5 mm², Typ 43
Field wireable Connectors for Power Cables, 4 x 1,5 mm², Type 43

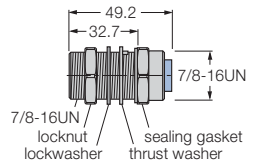
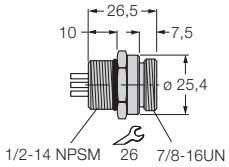
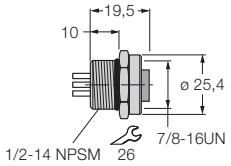
Abmessungen Dimensions	Anwendung Application	Verbindungs-technik Connection Fig. (Fxxx)	Typenbezeichnung Type	Ident-Nr. Ident no.
	Konfektionierbare 7/8“-Kupplung, Kabelauslass Pg9, max. Kabeldurchmesser: 6...8 mm Field wireable 7/8“ female connector, cable outlet Pg9, max. cable diameter 6...8 mm	1 x 7/8“ (F023B)	**B4148-0/9**	6914925
	Konfektionierbarer 7/8“-Stecker, Kabelauslass Pg9, max. Kabeldurchmesser: 6...8 mm Field wireable 7/8“ male connector, cable outlet Pg9, max. cable diameter 6...8 mm	1 x 7/8“ (F023A)	**BS4148-0/9**	6914522

Anschlussbelegung
Pin Configuration

(F023A)	(F023B)	
 1 = Aux + 2 = E + 3 = E - 4 = Aux -	 1 = Aux + 2 = E + 3 = E - 4 = Aux -	

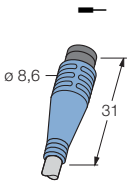
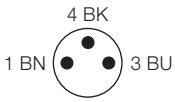
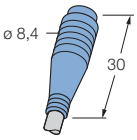
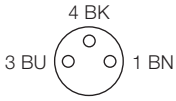
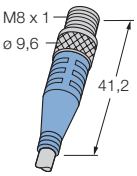
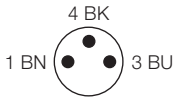
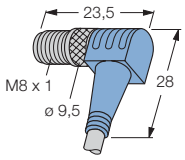
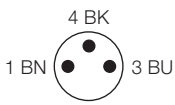
Durchführungen/Flansche für Versorgungskabel, 4 x 1,5 mm², Typ 43
Feed-through Receptacles/Flanged connectors for Power Cables, 4 x 1,5 mm², Type 43

TURCK
Industrial Automation

Abmessungen Dimensions	Anwendung Application	Verbindungs-technik Connection Fig. (Fxxx)	Typenbezeichnung Type	Ident-Nr. Ident no.
	7/8"-Durchführung, gerader Stecker/ Kupplung, zur Verwendung mit vor-konfektionierten 7/8"-Kabeln 7/8" bulkhead receptacle, straight male/ female feed-thru, for use with 7/8" cordsets	1 x 7/8“ (F023A) 1 x 7/8“ (F023B)	**RSF-RKF-40/22**	6915014
	Lötbarer 7/8“-Flanschstecker 7/8" field solderable receptacle, male connector	1 x 7/8“ (F023A)	**RSFL46**	6914836
	Lötbare 7/8“-Flanschkupplung 7/8" field solderable receptacle, female connector	1 x 7/8“ (F023B)	**RKFL46**	6915086

A4

Steckverbinder-Systeme für Sensoren und Aktuatoren (Ø 8 mm/M8 x 1)
Connector Systems for Sensors and Actuators (Ø 8 mm/M8 x 1)

Abmessungen/Bauform Dimensions/Housing style [mm]		Anschluss Pin configuration	Leitung/Cable Querschnitt Cross section [mm²]	Adernaufbau Conductor construction [mm Ø]	Länge Length [m]	Qualität Quality	Farbe Colour	Durchmesser Diameter [mm Ø]
	**Ø 8 mm** ●		3 x 0,25	32 x 0,1	2	PUR	GY	4,4
			3 x 0,25	32 x 0,1	5	PUR	GY	4,4
			3 x 0,25	32 x 0,1	10	PUR	GY	4,4
	**Ø 8 mm** ●		3 x 0,25	32 x 0,1	2	PUR	GY	4,4
			3 x 0,25	32 x 0,1	5	PUR	GY	4,4
			3 x 0,25	32 x 0,1	10	PUR	GY	4,4
	**M8 x 1** ●		3 x 0,25	32 x 0,1	2	PUR	GY	4,4
			3 x 0,25	32 x 0,1	5	PUR	GY	4,4
			3 x 0,25	32 x 0,1	10	PUR	GY	4,4
	**M8 x 1** ●		3 x 0,25	32 x 0,1	2	PUR	GY	4,4
			3 x 0,25	32 x 0,1	5	PUR	GY	4,4
			3 x 0,25	32 x 0,1	10	PUR	GY	4,4

Typenbezeichnung Type	Ident-Nr. Ident no.	Nennstrom Rated current [A]	Nenn-spannung Rated voltage [V]	Überwurfmutter Coupling nut	Umgebungstemperatur Temperature range [°C] Stecker Connector	 Leitung Cable	Schutzart Degree of protection	LED U_B	 ⌐¬
SP3-2/S90	8007296	4	max. 60		-30…+90	-40…+80	IP67		
SP3-5/S90	8007300	4	max. 60		-30…+90	-40…+80	IP67		
SP3-10/S90	8007304	4	max. 60		-30…+90	-40…+80	IP67		
KP3-2/S90	8007278	4	max. 60		-30…+90	-40…+80	IP67		
KP3-5/S90	8007282	4	max. 60		-30…+90	-40…+80	IP67		
KP3-10/S90	8007286	4	max. 60		-30…+90	-40…+80	IP67		
SSP3-2/S90	8007350	4	max. 60	CuZn - Ni	-30…+90	-40…+80	IP67		
SSP3-5/S90	8007354	4	max. 60	CuZn - Ni	-30…+90	-40…+80	IP67		
SSP3-10/S90	8007358	4	max. 60	CuZn - Ni	-30…+90	-40…+80	IP67		
SWSP3-2/S90	8007386	4	max. 60	CuZn - Ni	-30…+90	-40…+80	IP67		
SWSP3-5/S90	8007390	4	max. 60	CuZn - Ni	-30…+90	-40…+80	IP67		
SWSP3-10/S90	8007394	4	max. 60	CuZn - Ni	-30…+90	-40…+80	IP67		

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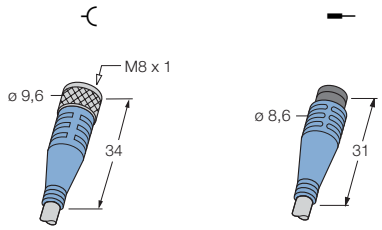
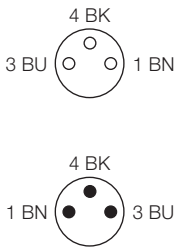
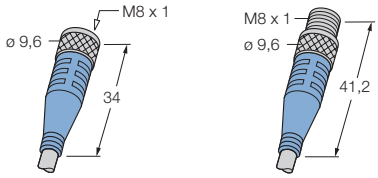
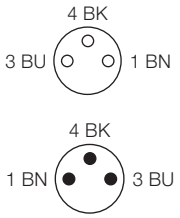
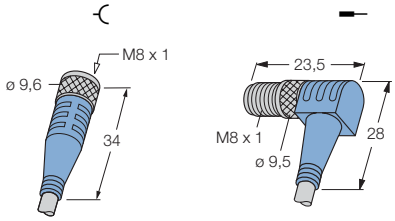
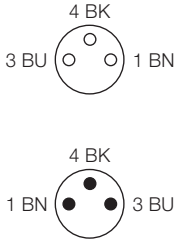
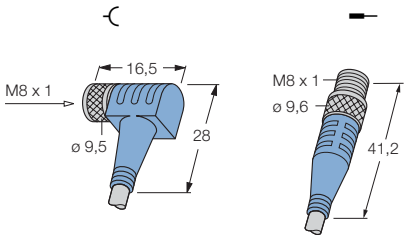
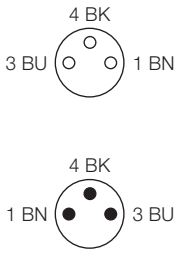
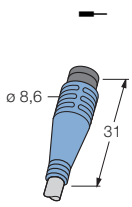
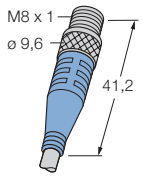
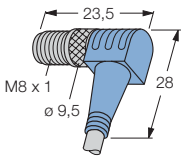
Steckverbinder-Systeme für Sensoren und Aktuatoren (M8 x 1 auf Ø 8 mm/M8 x 1)
Connector Systems for Sensors and Actuators (M8 x 1 to Ø 8 mm/M8 x 1)

Abmessungen/Bauform Dimensions/Housing style [mm]		Anschluss Pin configuration	Leitung/Cable Querschnitt Cross section [mm²]	Adernaufbau Conductor construction [mm Ø]	Länge Length [m]	Qualität Quality	Farbe Colour	Durchmesser Diameter [mm Ø]
	**M8 x 1 - Ø 8 mm** ●		3 x 0,25	32 x 0,1	1	PUR	GY	4,4
			3 x 0,25	32 x 0,1	1,5	PUR	GY	4,4
			3 x 0,25	32 x 0,1	2	PUR	GY	4,4
			3 x 0,25	32 x 0,1	5	PUR	GY	4,4
	**M8 x 1 - M8 x 1** ●		3 x 0,25	32 x 0,1	1	PUR	GY	4,4
			3 x 0,25	32 x 0,1	1,5	PUR	GY	4,4
			3 x 0,25	32 x 0,1	2	PUR	GY	4,4
			3 x 0,25	32 x 0,1	5	PUR	GY	4,4
	**M8 x 1 - M8 x 1** ●		3 x 0,25	32 x 0,1	1	PUR	GY	4,4
			3 x 0,25	32 x 0,1	1,5	PUR	GY	4,4
			3 x 0,25	32 x 0,1	2	PUR	GY	4,4
			3 x 0,25	32 x 0,1	5	PUR	GY	4,4
	**M8 x 1 - M8 x 1** ●		3 x 0,25	32 x 0,1	1	PUR	GY	4,4
			3 x 0,25	32 x 0,1	1,5	PUR	GY	4,4
			3 x 0,25	32 x 0,1	2	PUR	GY	4,4
			3 x 0,25	32 x 0,1	5	PUR	GY	4,4

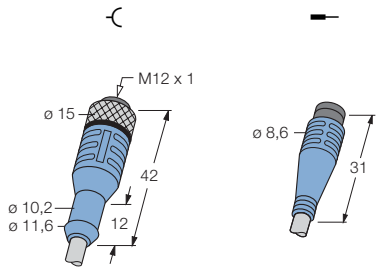
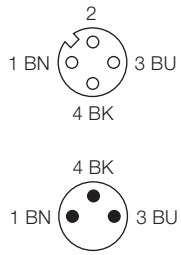
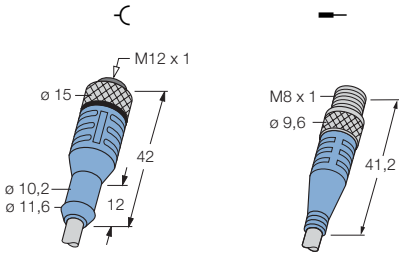
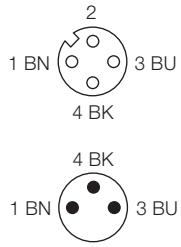
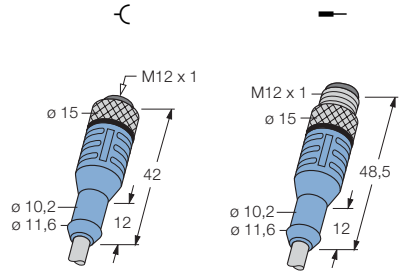
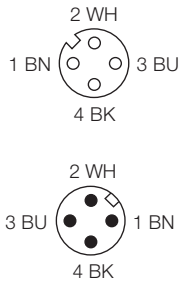
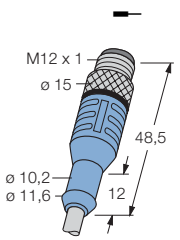
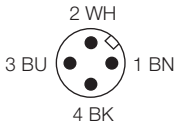
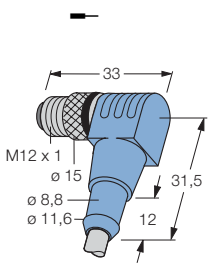
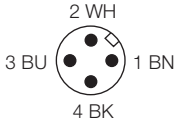
Typenbezeichnung Type	Ident-Nr. Ident no.	Nennstrom Rated current [A]	Nenn-spannung Rated voltage [V]	Überwurfmutter Coupling nut	Umgebungstemperatur Temperature range [°C] Stecker Connector	 Leitung Cable	Schutzart Degree of protection	LED U_B	 ⌐¬
SKP3-1-SP3/S90	8015474	4	max. 60	CuZn - Ni	-30…+90	-40…+80	IP67		
SKP3-1,5-SP3/S90	8024804	4	max. 60	CuZn - Ni	-30…+90	-40…+80	IP67		
SKP3-2-SP3/S90	8015478	4	max. 60	CuZn - Ni	-30…+90	-40…+80	IP67		
SKP3-5-SP3/S90	8015479	4	max. 60	CuZn - Ni	-30…+90	-40…+80	IP67		
SKP3-1-SSP3/S90	8008683	4	max. 60	CuZn - Ni	-30…+90	-40…+80	IP67		
SKP3-1,5-SSP3/S90	8008690	4	max. 60	CuZn - Ni	-30…+90	-40…+80	IP67		
SKP3-2-SSP3/S90	8008685	4	max. 60	CuZn - Ni	-30…+90	-40…+80	IP67		
SKP3-5-SSP3/S90	8008686	4	max. 60	CuZn - Ni	-30…+90	-40…+80	IP67		
SKP3-1-SWSP3/S90	8015454	4	max. 60	CuZn - Ni	-30…+90	-40…+80	IP67		
SKP3-1,5-SWSP3/S90	8024802	4	max. 60	CuZn - Ni	-30…+90	-40…+80	IP67		
SKP3-2-SWSP3/S90	8015457	4	max. 60	CuZn - Ni	-30…+90	-40…+80	IP67		
SKP3-5-SWSP3/S90	8015460	4	max. 60	CuZn - Ni	-30…+90	-40…+80	IP67		
SWKP3-1-SSP3/S90	8015408	4	max. 60	CuZn - Ni	-30…+90	-40…+80	IP67		
SWKP3-1,5-SSP3/S90	8016217	4	max. 60	CuZn - Ni	-30…+90	-40…+80	IP67		
SWKP3-2-SSP3/S90	8015456	4	max. 60	CuZn - Ni	-30…+90	-40…+80	IP67		
SWKP3-5-SSP3/S90	8015459	4	max. 60	CuZn - Ni	-30…+90	-40…+80	IP67		

Steckverbinder-Systeme für Sensoren und Aktuatoren (Ø 8 mm/M8 x 1)
Connector Systems for Sensors and Actuators (Ø 8 mm/M8 x 1)

Abmessungen/Bauform Dimensions/Housing style [mm]		Anschluss Pin configuration	Leitung/Cable Querschnitt Cross section [mm²]	Adernaufbau Conductor construction [mm Ø]	Länge Length [m]	Qualität Quality	Farbe Colour	Durchmesser Diameter [mm Ø]
	**Ø 8 mm**		4 x 0,25	32 x 0,1	5	PVC	GY	4,4
			4 x 0,25	32 x 0,1	5	PUR	GY	4,4
			4 x 0,25	32 x 0,1	10	PUR	GY	4,4
	**M8 x 1**		4 x 0,25	32 x 0,1	2	PUR	GY	4,4
			4 x 0,25	32 x 0,1	5	PUR	GY	4,4
			4 x 0,25	32 x 0,1	10	PUR	GY	4,4
	**M8 x 1**		4 x 0,25	32 x 0,1	2	PUR	GY	4,4
			4 x 0,25	32 x 0,1	5	PUR	GY	4,4
			4 x 0,25	32 x 0,1	10	PUR	GY	4,4

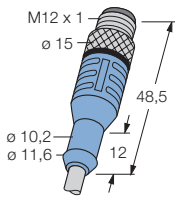
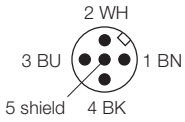
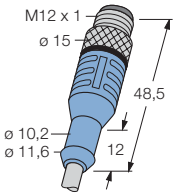
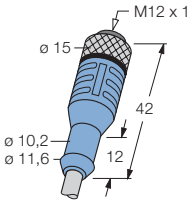
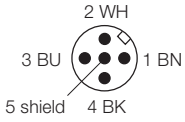
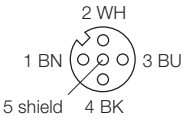
Typenbezeichnung Type	Ident-Nr. Ident no.	Nennstrom Rated current [A]	Nenn-spannung Rated voltage [V]	Überwurfmutter Coupling nut	Umgebungstemperatur Temperature range [°C] Stecker Connector	 Leitung Cable	Schutzart Degree of protection	LED U_B	 ⌐¬
SP4-2/S90	8007309	4	max. 30		-30…+90	-40…+80	IP67		
SP4-5/S90	8007310	4	max. 30		-30…+90	-40…+80	IP67		
SP4-10/S90	8007312	4	max. 30		-30…+90	-40…+80	IP67		
SSP4-2/S90	8007362	4	max. 30	CuZn - Ni	-30…+90	-40…+80	IP67		
SSP4-5/S90	8007364	4	max. 30	CuZn - Ni	-30…+90	-40…+80	IP67		
SSP4-10/S90	8007366	4	max. 30	CuZn - Ni	-30…+90	-40…+80	IP67		
SWSP4-2/S90	8007398	4	max. 30	CuZn - Ni	-30…+90	-40…+80	IP67		
SWSP4-5/S90	8007400	4	max. 30	CuZn - Ni	-30…+90	-40…+80	IP67		
SWSP4-10/S90	8007402	4	max. 30	CuZn - Ni	-30…+90	-40…+80	IP67		

Steckverbinder-Systeme für Sensoren und Aktuatoren (M12 x 1 auf Ø 8 mm/M8 x 1/M12 x 1/Ende offen)
Connector Systems for Sensors and Actuators (M12 x 1 to Ø 8 mm/M8 x 1/M12 x 1/Open end)

Abmessungen/Bauform Dimensions/Housing style [mm]		Anschluss Pin configuration	Leitung/Cable Querschnitt Cross section [mm²]	Adernaufbau Conductor construction [mm Ø]	Länge/ Length [m]	Qualität Quality	Farbe Colour	Durchmesser Diameter [mm Ø]
	**M12 x 1 - Ø 8 mm** ●		3 x 0,25	32 x 0,1	1	PUR	GY	4,4
			3 x 0,25	32 x 0,1	1,5	PUR	GY	4,4
			3 x 0,25	32 x 0,1	2	PUR	GY	4,4
			3 x 0,25	32 x 0,1	5	PUR	GY	4,4
	**M12 x 1 - M8 x 1** ●		3 x 0,25	32 x 0,1	1	PUR	GY	4,4
			3 x 0,25	32 x 0,1	1,5	PUR	GY	4,4
			3 x 0,25	32 x 0,1	2	PUR	GY	4,4
			3 x 0,25	32 x 0,1	5	PUR	GY	4,4
	**M12 x 1 - M12 x 1** ●		4 x 0,34	43 x 0,1	5	PVC	GY	5,2
			4 x 0,34	43 x 0,1	2	PUR	GY	5,2
			4 x 0,34	43 x 0,1	5	PUR	GY	5,2
			4 x 0,34	43 x 0,1	2	PVC-X	GY	5,2
			4 x 0,34	43 x 0,1	5	PVC-X	GY	5,2
	**M12 x 1** ●		4 x 0,34	43 x 0,1	2	PUR	GY	5,2
			4 x 0,34	43 x 0,1	5	PUR	GY	5,2
	**M12 x 1** ●		4 x 0,34	43 x 0,1	2	PUR	GY	5,2
			4 x 0,34	43 x 0,1	5	PUR	GY	5,2

Typenbezeichnung Type	Ident-Nr. Ident no.	Nennstrom Rated current [A]	Nenn-spannung Rated voltage [V]	Überwurfmutter Coupling nut	Umgebungstemperatur Temperature range [°C] Stecker Connector	 Leitung Cable	Schutzart Degree of protection	LED U_B	 ⌐¬
WAK3-1-SP3/S90	8015483	4	max. 250	CuZn - Ni	-30…+90	-40…+80	IP67		
WAK3-1,5-SP3/S90	8024803	4	max. 250	CuZn - Ni	-30…+90	-40…+80	IP67		
WAK3-2-SP3/S90	8015484	4	max. 250	CuZn - Ni	-30…+90	-40…+80	IP67		
WAK3-5-SP3/S90	8015485	4	max. 250	CuZn - Ni	-30…+90	-40…+80	IP67		
WAK3-1-SSP3/S90	8009713	4	max. 250	CuZn - Ni	-30…+90	-40…+80	IP67		
WAK3-1,5-SSP3/S90	8017210	4	max. 250	CuZn - Ni	-30…+90	-40…+80	IP67		
WAK3-2-SSP3/S90	8010511	4	max. 250	CuZn - Ni	-30…+90	-40…+80	IP67		
WAK3-5-SSP3/S90	8015475	4	max. 250	CuZn - Ni	-30…+90	-40…+80	IP67		
WAK4-5-WAS4/P00	8006745	4	max. 250	CuZn - Ni	-40…+80	-25…+80	IP67		
WAK4-2-WAS4/S90	8006739	4	max. 250	CuZn - Ni	-40…+80	-25…+80	IP67		
WAK4-5-WAS4/S90	8006746	4	max. 250	CuZn - Ni	-40…+80	-25…+80	IP67		
WAK4-2-WAS4/XOR	8006740	4	max. 250	CuZn - Ni	-40…+80	-25…+80	IP67		
WAK4-5-WAS4/XOR	8006747	4	max. 250	CuZn - Ni	-40…+80	-25…+80	IP67		
WAS4-2/S90	8007098	4	max. 250	CuZn - Ni	-40…+80	-25…+80	IP67		
WAS4-5/S90	8007105	4	max. 250	CuZn - Ni	-40…+80	-25…+80	IP67		
WWAS4-2/S90	8007200	4	max. 250	CuZn - Ni	-40…+80	-25…+80	IP67		
WWAS4-5/S90	8007207	4	max. 250	CuZn - Ni	-40…+80	-25…+80	IP67		

Steckverbinder-Systeme für Sensoren und Aktuatoren (M12 x 1) – geschirmt
Connector Systems for Sensors and Actuators (M12 x 1) – shielded

Abmessungen/Bauform Dimensions/Housing style [mm]		Anschluss Pin configuration	Leitung/Cable Querschnitt Cross section [mm²]	Adernaufbau Conductor construction [mm Ø]	Länge Length [m]	Qualität[1]) Quality [1]) 	Farbe Colour 	Durchmesser Diameter [mm Ø]	
	**M12 x 1**		5 x 0,34	43 x 0,1	2	PUR-H	GY	5,2	
			5 x 0,34	43 x 0,1	5	PUR-H	GY	5,2	
 	**M12 x 1- M12 x 1**	 	5 x 0,34	43 x 0,1	1	PUR-H	GY	5,2	
			5 x 0,34	43 x 0,1	2	PUR-H	GY	5,2	
			5 x 0,34	43 x 0,1	5	PUR-H	GY	5,2	

[1]) PUR-H = Polyurethan, halogenfrei/Polyurethane, halogen-free

	Typenbezeichnung Type	Ident-Nr. Ident no.	Nennstrom Rated current [A]	Nenn-spannung Rated voltage [VAC/VDC]	Überwurfmutter Coupling nut	Umgebungstemperatur Temperature range [°C] Stecker Connector	 Leitung Cable	Schutzart Degree of protection	LED U_B	 ⌐¬
	WAS4.5-2/S57	8016985	4	30/36		-40…+80	-40…+90	IP67		
	WAS4.5-5/S57	8016986	4	30/36		-40…+80	-40…+90	IP67		
	WAS4.5-1-WAK4.5/S57	8016987	4	30/36	CuZn - Ni	-40…+80	-40…+90	IP67		
	WAS4.5-2-WAK4.5/S57	8016988	4	30/36	CuZn - Ni	-40…+80	-40…+90	IP67		
	WAS4.5-5-WAK4.5/S57	8016989	4	30/36	CuZn - Ni	-40…+80	-40…+90	IP67		

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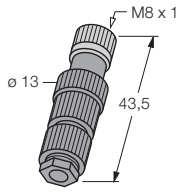
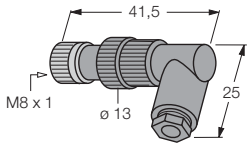
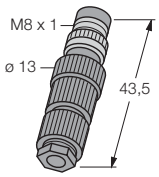
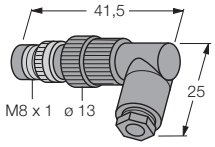
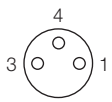
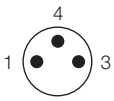
Konfektionierbare Steckverbinder-Systeme (M8 x 1)
Field wireable Connector Systems (M8 x 1)

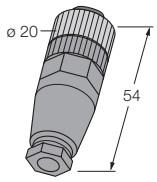
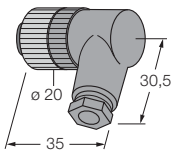
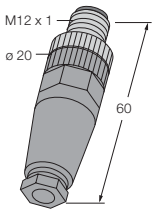
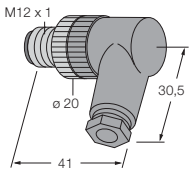
Abmessungen/Bauform Dimensions/Housing style [mm]		Leiteranzahl Number of conductors	Kabellänge Cable length [m]	Werkstoffe/Materials Kabelmantel Cable jacket	Überwurfmutter Coupling nut	Griffteil Grip
	**M8 x 1**	3	–	PA	GD-Zn-Ni	PA
	⊰	4	–	PA	GD-Zn-Ni	PA
	**M8 x 1**	3	–	PA	GD-Zn-Ni	PA
	⊰	4	–	PA	GD-Zn-Ni	PA
	**M8 x 1**	3	–	PA	GD-Zn-Ni	PA
	▬	4	–	PA	GD-Zn-Ni	PA
	**M8 x 1**	3	–	PA	GD-Zn-Ni	PA
	▬	4	–	PA	GD-Zn-Ni	PA

Anschlussbelegung
Pin Configuration

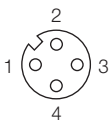
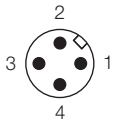
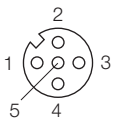
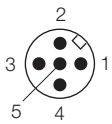
(C015)	(C016)	(C017)	(C018)
⊰	⊰	▬	▬
			

Typenbezeichnung Type	Ident-Nr. Ident no.	Nennstrom Rated current [A]	Nenn-spannung Rated voltage [VAC/VDC]	Anschluss Connection	Umgebungstemperatur/ Temperature range [°C] Stecker Connector	 Leitung Cable	Schutzart Degree of protection	LED U_B	 ⌐
H5131-0	6902700	4	60/60	(C015)	-40…+80	-25…+80	IP67		
H5141-0	6902720	4	60/60	(C016)	-40…+80	-25…+80	IP67		
H5231-0	6902800	4	60/60	(C015)	-40…+80	-25…+80	IP67		
H5241-0	6902820	4	60/60	(C016)	-40…+80	-25…+80	IP67		
HS5131-0	6902710	4	60/60	(C017)	-40…+80	-25…+80	IP67		
HS5141-0	6902730	4	60/60	(C018)	-40…+80	-25…+80	IP67		
HS5231-0	6902810	4	60/60	(C017)	-40…+80	-25…+80	IP67		
HS5241-0	6902830	4	60/60	(C018)	-40…+80	-25…+80	IP67		

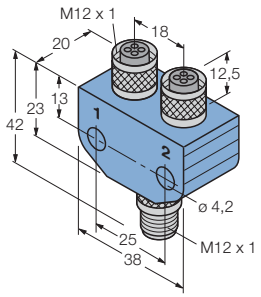
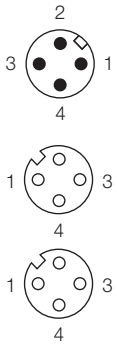
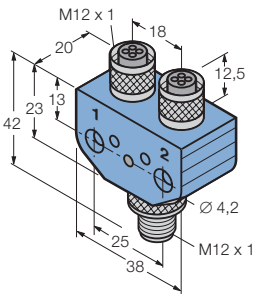
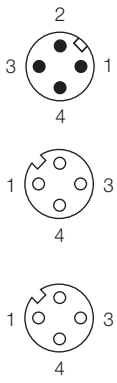
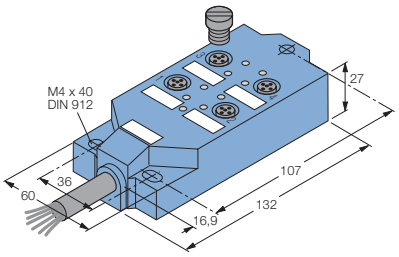
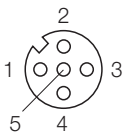
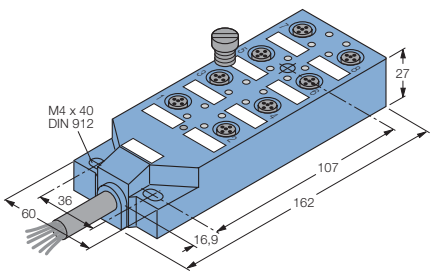
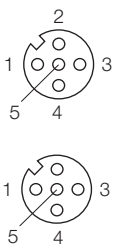
Konfektionierbare Steckverbinder-Systeme (M12 x 1)
Field wireable Connector Systems (M12 x 1)

Abmessungen/Bauform Dimensions/Housing style [mm]		Leiteranzahl Number of conductors	Kabellänge Cable length [m]	Werkstoffe/Materials Kabelmantel Cable jacket	Überwurfmutter Coupling nut	Griffteil Grip
	**M12 x 1**	4	–	PBT	CuZn-Ni	PBT
	⊰	5	–	PBT	CuZn-Ni	PBT
	**M12 x 1**	4	–	PBT	CuZn-Ni	PBT
	⊰	5	–	PBT	CuZn-Ni	PBT
	**M12 x 1**	4	–	PBT	CuZn-Ni	PBT
	⊸	5	–	PBT	CuZn-Ni	PBT
	**M12 x 1**	4	–	PBT	CuZn-Ni	PBT
	⊸	5	–	PBT	CuZn-Ni	PBT

Anschlussbelegung
Pin Configuration

(C011)	(C012)	(C020)	(C021)
⊰	⊸	⊰	⊸
			

Typenbezeichnung Type	Ident-Nr. Ident no.	Nennstrom Rated current [A]	Nenn-spannung Rated voltage [VAC/VDC]	Anschluss Connection	Umgebungstemperatur/ Temperature range/ [°C] Stecker Connector	 Leitung Cable	Schutzart Degree of protection	LED U_B	 ⌐
H8141-0	6902500	4	125/150	(C011)	-40…+80	-25…+80	IP67		
B8151-0	6904601	4	30/36	(C020)	-40…+80	-25…+80	IP67		
H8241-0	6902600	4	125/150	(C011)	-40…+80	-25…+80	IP67		
B8251-0	6904602	4	30/36	(C020)	-40…+80	-25…+80	IP67		
HS8141-0	6902510	4	125/150	(C012)	-40…+80	-25…+80	IP67		
BS8151-0	6904611	4	30/36	(C021)	-40…+80	-25…+80	IP67		
HS8241-0	6902610	4	125/150	(C012)	-40…+80	-25…+80	IP67		
BS8251-0	6904612	4	30/36	(C021)	-40…+80	-25…+80	IP67		

Abmessungen/Bauform Dimensions/Housing style [mm]	Anschluss Pin configuration	Leitung/Cable Querschnitt Cross section [mm²]	Adernaufbau Conductor construction [mm Ø]	Länge Length [mm Ø]	Qualität[1] Quality[1]	Farbe Colour	Durchmesser Diameter [mm Ø]
	**M12 x 1 –** **M12 x 1**						
	**M12 x 1 –** **M12 x 1**						
			4 x 0,34 3 x 1,0	43 x 0,1 128 x 0,1	2	PUR-H	BK	7,9
			8 x 0,34 3 x 1,0	43 x 0,1 128 x 0,1	5	PUR-H	BK	8,6

[1] PUR-H = Polyurethan, halogenfrei/Polyurethane, halogen-free

Typenbezeichnung Type	Ident-Nr. Ident no.	Anschluss Sensoren/ Aktuatoren Connection sensors/ actuators	Nennstrom Rated current [A]	Nenn-spannung Rated voltage [V]	Umgebungstemperatur Temperature range [°C] Verteiler Junction	Leitung Cable	LEDs
FSM4-2FKM3/S89	8010464	M12 x 1	4	max. 250	-30…+ 90		
FSM4-2FKM3P3/S89	8012652	M12 x 1	4	10 ... 30	-30…+ 90		3
4MB12-5.4P2-2/S366	8018110	M12 x 1	4 / Σ 12	10…48	-30…+ 80	-40…+ 90	5
8MB12-5.4P2-5/S366	8018105	M12 x 1	4 / Σ 12	10…48	-30…+ 80	-40…+ 90	9

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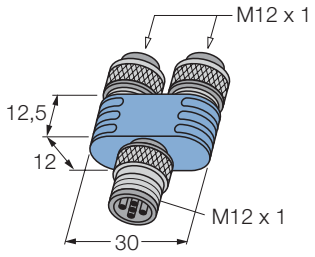
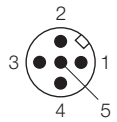
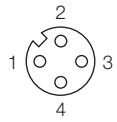
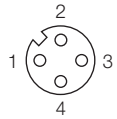
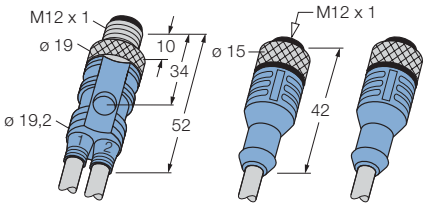
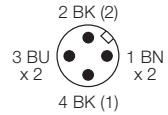
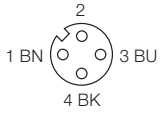
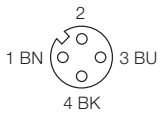
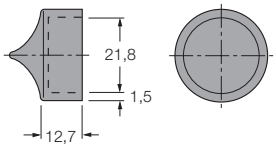
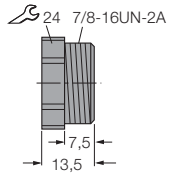
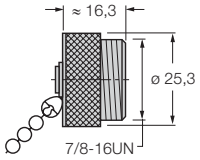
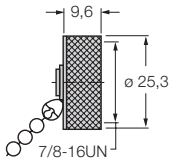
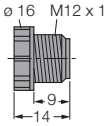
Abmessungen/Bauform Dimensions/Housing style [mm]	Anschluss Pin configuration	Leitung/Cable Querschnitt Cross section [mm²]	Adernaufbau Conductor construction [mm Ø]	Länge Length [mm Ø]	Qualität Quality	Farbe Colour	Durchmesser Diameter [mm Ø]
	**M12 x 1 –** **M12 x 1**						
							
							
							
	**M12 x 1 –** **M12 x 1**	4 x 0,34	43 x 0,1	0,3/0,3	PVC	GY	5,2
		4 x 0,34	43 x 0,1	0,6/0,6	PVC	GY	5,2
		4 x 0,34	43 x 0,1	1/1	PVC	GY	5,2
		4 x 0,34	43 x 0,1	0,3/0,3	PUR	GY	5,2
		4 x 0,34	43 x 0,1	0,6/0,6	PUR	GY	5,2
		4 x 0,34	43 x 0,1	1/1	PUR	GY	5,2
		4 x 0,34	43 x 0,1	0,3/0,3	PVC-I	OR	5,2
		4 x 0,34	43 x 0,1	0,6/0,6	PVC-I	OR	5,2
		4 x 0,34	43 x 0,1	1/1	PVC-I	OR	5,2

1) Nicht für BL67-M12-Basismodule geeignet/Not suitable for BL67 M12-base modules

Typenbezeichnung Type	Ident-Nr. Ident no.	Anschluss Sensoren/ Aktuatoren Connection sensors/ actuators	Nennstrom Rated current [A]	Nenn-spannung Rated voltage [V]	Umgebungstemperatur Temperature range [°C] Verteiler Junction	Leitung Cable	LEDs
FSM5-2FKM5.4/S55 [1])	8018720	M12 x 1	4	max. 60	-30…+ 90		
FSM4-2WAK3-0,3/0,3/P00	8008065	M12 x 1	4	max. 250	-30…+ 90	-40…+ 80	
FSM4-2WAK3-0,6/0,6/P00	8008070	M12 x 1	4	max. 250	-30…+ 90	-40…+ 80	
FSM4-2WAK3-1/1/P00	8009560	M12 x 1	4	max. 250	-30…+ 90	-40…+ 80	
FSM4-2WAK3-0,3/0,3/S90	8008066	M12 x 1	4	max. 250	-30…+ 90	-40…+ 80	
FSM4-2WAK3-0,6/0,6/S90	8008071	M12 x 1	4	max. 250	-30…+ 90	-40…+ 80	
FSM4-2WAK3-1/1/S90	8009561	M12 x 1	4	max. 250	-30…+ 90	-40…+ 80	
FSM4-2WAK3-0,3/0,3/XOR	8008067	M12 x 1	4	max. 250	-30…+ 90	-40…+ 80	
FSM4-2WAK3-0,6/0,6/XOR	8008072	M12 x 1	4	max. 250	-30…+ 90	-40…+ 80	
FSM4-2WAK3-1/1/XOR	8009562	M12 x 1	4	max. 250	-30…+ 90	-40…+ 80	

DeviceNet™ – Verschlusskappen 7/8“ und M12 x 1
DeviceNet™ – 7/8" and M12 x 1 blanking plugs

Industrial Automation

Abmessungen Dimensions	Anwendung Application	Material und Farbe Material and colour	Typenbezeichnung Type	Ident-Nr. Ident no.
	Staubkappe für 7/8“-Einbauflansche, keine interne Verdrahtung, 50 Stück pro Beutel Protective dust cap for 7/8“ mounting flange, no internal wiring, 50 pcs. per package	Polyamid schwarz Polyamide black	**RSM-DUST-CAP**	6914862
	Verschraubkappe für 7/8“-Kupplungen, keine interne Verdrahtung Screw cap for 7/8“ female connectors, no internal wiring	Polyamid schwarz Polyamide black	**VZ 8**	8018816
	Verschraubkappe für 7/8“-Kupplungen, keine interne Verdrahtung Screw cap for 7/8“ female connectors, no internal wiring	nickelbeschichtetes Messing, schwarz nickel-plated brass, black	**RSM-CC**	6914829
	Verschraubkappe für 7/8“-Stecker, keine interne Verdrahtung Screw cap for 7/8“ male connectors, no internal wiring	nickelbeschichtetes Messing, schwarz nickel-plated brass, black	**RKM-CC**	6914831
	Verschraubkappe für 12 x 1-Kupplungen, keine interne Verdrahtung Screw cap for M12 x 1 female connectors, no internal wiring	Polyurethan schwarz Polyurethane black	**VZ 3**	800004

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F774/01

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