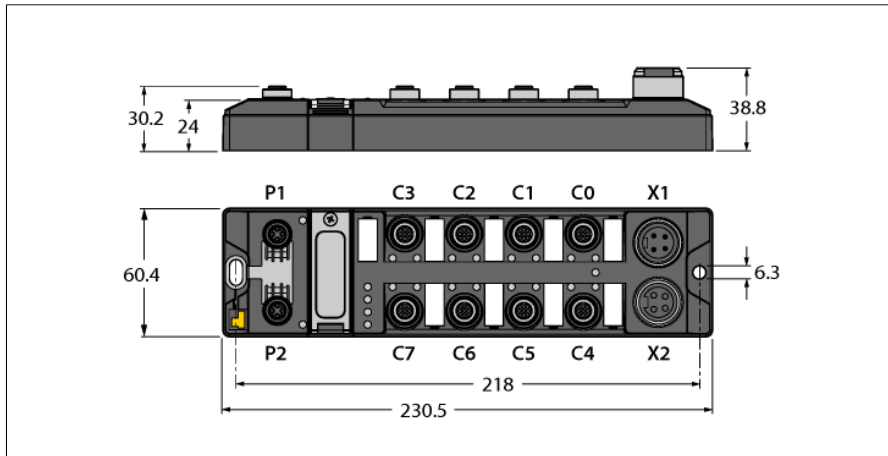


## interface for 4 BL ident read-write heads (HF/UHF) TBEN-L4-4RFID-8DXP-CDS



- Glass fiber reinforced housing
- Shock and vibration tested
- Fully potted module electronics
- Protection classes IP65, IP67, IP69K
- Multiprotocol: EtherNet/IP™ device, Modbus TCP, Turck Master/Slave, or PROFINET RT device
- CODESYS V3 programmable acc.to IEC 61131-3
- Integration in PLC systems without special function module
- Up to 128 bytes of user data per read/write cycle for each channel and use of fragments for larger amounts of data
- Data interface for convenient use of RFID functionality
- HF bus mode for static applications
- 7/8" connector for power supply, 4-pin
- 2 × M12, 4-pin Ethernet fieldbus connection
- 4 channels with M12 connection for RFID
- Mixed operation of HF and UHF read/write heads
- 8 digital channels, configurable as PNP inputs and/or outputs 2A
- Integrated Ethernet switch allows line topology
- Transmission rate 10 Mbps/100 Mbps
- Integrated web server
- LED displays and diagnostics

|                                   |  |
|-----------------------------------|--|
| <b>Type designation</b>           | TBEN-L4-4RFID-8DXP-CDS   |
| Ident-No.                         | 6814121  |
| <b>Supply</b>                     |  |
| Supply voltage                    | 24 VDC   |
| Admissible range                  | 18 ... 30VDC<br>Gesamtstrom V1 max. 8 A + V2 max. 9 A @ 70°C<br>pro Modul  |
| Voltage supply connection         | 4-pin male 7/8" connector  |
| Operating current                 | <280 mA  |
| RFID supply $V_{AUX1}$            | ports C0-C3 from V2 short-circuit proof, 2 A per port at +70 °C            |
| Sensor/Actuator supply $V_{AUX2}$ | Ports C4-C7 from V2 short-circuit proof, 2 A per port at +70 °C            |
| Electrical isolation              | galvanic isolation of the voltage groups V1 and V2, voltages up to 500 VAC |
| Power dissipation, typical        | ≤ 5 W  |
| <b>system description</b>         |  |
| Processor                         | ARM Cortex A8, 32 bit, 800 MHz   |
| ROM memory                        | 256 MB Flash   |
| RAM memory                        | 128 MB DDR3  |
| Add-on memory                     | 1 x USB host port  |
| Real time clock                   | yes  |
| Operating system                  | Linux  |
| <b>PLC data</b>                   |  |
| Programming                       | CODESYS V3   |
| Released for CODESYS version      | V 3.5.8.10   |
| Programming languages             | IEC 61131-3 (AWL, KOP, FUP, AS, ST)  |
| Application tasks                 | 10   |
| Number of POU's                   | 1024   |
| Programming interface             | Ethernet, USB  |
| Cycle time                        | < 1 ms for 1000 AWL commands (without I/O cycle)                           |
| Input data                        | 8 kByte  |
| Output data                       | 8 kByte  |
| <b>System data</b>                |  |
| Transmission rate Ethernet        | 10 Mbit/s / 100 Mbit/s   |
| Connection technology Ethernet    | 2 x M12, 4-pol, D-codiert  |
| Web server                        | Default: 192.168.1.100   |
| Service Interface                 | Ethernet via P1 oder P2  |
| <b>Modbus TCP</b>                 |  |
| Addressing                        | Static IP, BOOTP, DHCP   |
| Supported function codes          | FC1, FC2, FC3, FC4, FC5, FC6, FC15, FC16, FC23                             |
| Number of TCP connections         | 8  |

# interface for 4 BL ident read-write heads (HF/UHF) TBEN-L4-4RFID-8DXP-CDS

**TURCK**  
*works*

Industrial  
Automation

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## EtherNet/IP™

|                                 |                                    |
|---------------------------------|------------------------------------|
| Addressing                      | acc. to EtherNet/IP™ specification |
| Device Level Ring (DLR)         | supported                          |
| Number of TCP connections       | 3                                  |
| Number of CIP connections       | 10                                 |
| Input Assembly Instance         | 103                                |
| Output Assembly Instance        | 104                                |
| Configuration Assembly Instance | 106                                |

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## PROFINET

|                                 |                                 |
|---------------------------------|---------------------------------|
| Addressing                      | DCP                             |
| MinCycleTime                    | 4 ms                            |
| Diagnostics                     | acc. to PROFINET alarm handling |
| Automatic addressing            | supported                       |
| Media Redundancy Protocol (MRP) | supported                       |

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## RFID

|                       |   |
|-----------------------|---|
| Number of channels    | 4   |
| Connectivity          | M12   |
| Power supply          | 2A per channel at 70°C, short-circuit proof   |
| Operation per channel | 1 × HF or UHF read/write head, up to 32 bus-compatible HF read/write heads with ending /C53 (additional power supply may be needed) |
| RFID data interface   | HF und UHF  |
| Cable length          | max. 50 m   |

---

## Digital inputs

|                           |   |
|---------------------------|---|
| Number of channels        | 8   |
| Connectivity inputs       | M12, 5-pin  |
| Input type                | PNP   |
| Type of input diagnostics | channel diagnostics                                     |
| Switching threshold       | EN 61131-2 Typ 3, PNP                                   |
| Low level signal voltage  | < 5 V   |
| High level signal voltage | > 11 V  |
| Low level signal current  | < 1.5 mA  |
| High level signal current | > 2 mA  |
| Potential separation      | galvanic isolation to P1/P2<br>, voltages up to 500 VDC |

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## Digital outputs

|                               |   |
|-------------------------------|---|
| Number of channels            | 8   |
| Connection Technology Outputs | M12, 5-pol  |
| Output type                   | PNP   |
| Type of output diagnostics    | channel diagnostics                                     |
| Output voltage                | 24 VDC from potential group                             |
| Output current per channel    | 2.0 A, short-circuit proof, max. 4.0 A per port         |
| Simultaneity factor           | 0.56  |
| Load type                     | EN 60947-5-1: DC-13                                     |
| Short-circuit protection      | yes   |
| Potential separation          | galvanic isolation to P1/P2<br>, voltages up to 500 VDC |

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## Standard/Directive conformity

|                                |  |
|--------------------------------|--|
| Vibration test                 | acceleration to 20 g<br>acc. to EN 60068-2-6 |
| Shock test                     | acc. to EN 60068-2-27                        |
| Drop and topple                | acc. to EN 60068-2-31/IEC 60068-2-32         |
| Electro-magnetic compatibility | acc. to EN 61131-2                           |
| Approvals and certificates     | CE   |
| UL conditions                  | cULus LISTED 21 W2, Encl.Type 1 IND.CONT.EQ. |

## interface for 4 BL ident read-write heads (HF/UHF) TBEN-L4-4RFID-8DXP-CDS

**TURCK**  
*works*

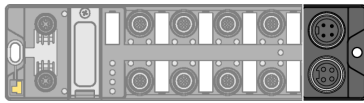
Industrial  
Automation

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### General Information

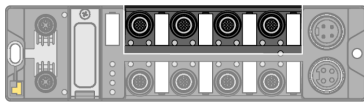
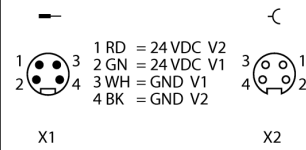
|                        |  |
|------------------------|--|
| Dimensions (W x L x H) | 60.4 x 230.4 x 39mm                      |
| Operating temperature  | -40...+70 °C                             |
| Storage temperature    | -40 ... +70 °C                           |
| Altitude               | max.5000 m                               |
| Protection class       | IP65<br>IP67<br>IP69K                    |
| MTTF                   | 75 years acc. to SN 29500 (Ed. 99) 20 °C |
| Housing material       | PA6-GF30                                 |
| Housing color          | Black                                    |
| Window material        | Lexan                                    |
| Material screw         | 303 stainless steel                      |
| Material label         | Polycarbonate                            |
| Halogen-free           | yes                                      |
| Mounting               | 2 mounting holes Ø 6.3 mm                |

interface for 4 BL ident read-write heads (HF/UHF)  
TBEN-L4-4RFID-8DXP-CDS



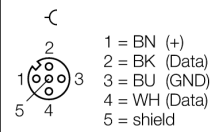
**Accessories**  
Power supply cable (example):  
RSM RKM 50-2M  
Ident no. U2282-0

7/8" Power Supply

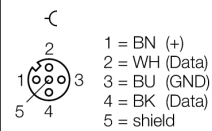


**Accessories**  
RFID-Leitung (Beispiel):  
RK4.5T-5-RS4.5T/S2500  
Ident-Nr. 6699201  
Anbindung von TB- und TN-Schreib-Lese-Köpfen (Beispiel):  
TN-CK40-H1147  
Ident-Nr. 7030006

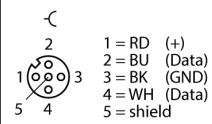
Connector .../S2500



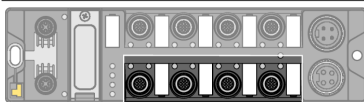
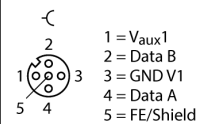
Connector .../S2501



Connectors .../S2503

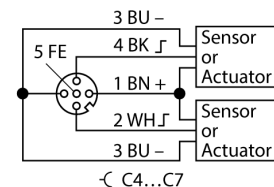
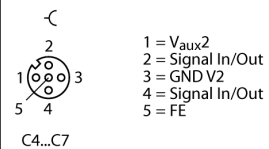


Wiring Diagram

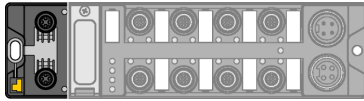


**Accessories**  
Accessories:  
Connection cable , 2-channel (example):  
RK 4.4T-2-RS 4.4T  
Ident no. U2445  
Splitter, 1-channel (example):  
YB2-FSM 4.5-2FKM 4.5  
Ident no. U0875-78

M12 x 1 I/O Port



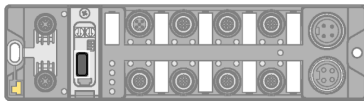
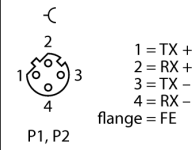
interface for 4 BL ident read-write heads (HF/UHF)  
**TBEN-L4-4RFID-8DXP-CDS**



**Accessories**

Ethernet cable (example):  
RSSD RSSD 441-2M  
Ident no. U-02482

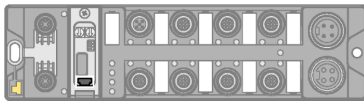
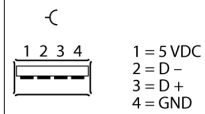
M12 x 1 Ethernet



**USB Host Interface**

Zur Verwendung mit USB Sticks

USB 2.0 A Jack



**USB Device Interface**

Zur Verwendung als Programmierschnittstelle (alternativ zu Ethernet)

USB Leitung (Beispiel):  
MINI USB 2.0 CABLE 1.5M (Ident Nr. 6827388)  
USB 2.0 Verlängerung A-Stecker auf A-Kupplung:  
USB 2.0 EXTENSION 5M (Ident Nr. 6827389)  
USB 2.0 EXTENSION ACTIVE 5M (Ident Nr. 6827390)

USB 2.0 mini-B Jack

