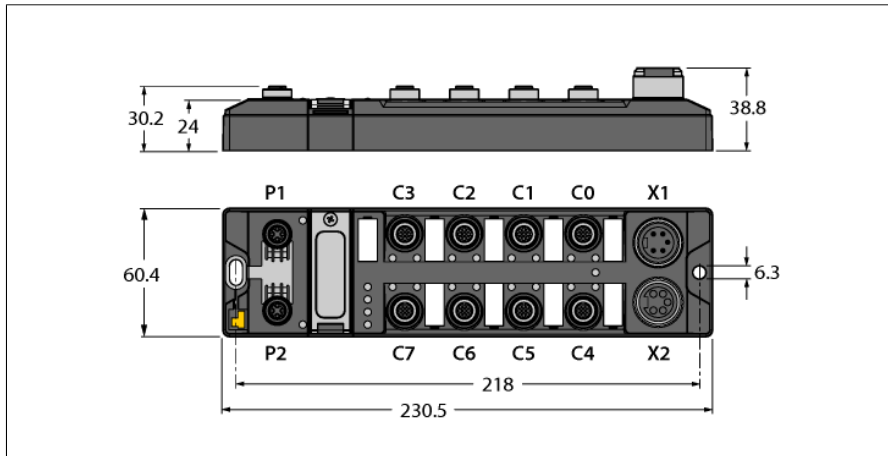


interface for 4 BL ident read-write heads (HF/UHF) TBEN-L5-4RFID-8DXP-CDS



- 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, 5-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

Type designation	TBEN-L5-4RFID-8DXP-CDS
Ident-No.	6814120
Supply	
Supply voltage	24 VDC
Admissible range	18...30 VDC
	total current V1 max. 8 A + V2 max. 9 A at 70 °C per module
Voltage supply connection	5-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
system description	
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
PLC data	
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
System data	
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
Modbus TCP	
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-L5-4RFID-8DXP-CDS



Industrial
Automation

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

PROFINET

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

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 , voltages up to 500 VDC

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 , voltages up to 500 VDC

Standard/Directive conformity

Vibration test	acceleration to 20 g 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-L5-4RFID-8DXP-CDS

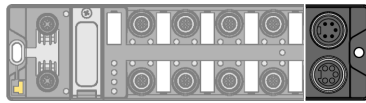
TURCK
works

Industrial
Automation

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 IP67 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-L5-4RFID-8DXP-CDS



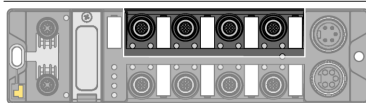
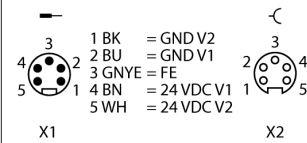
Accessories

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

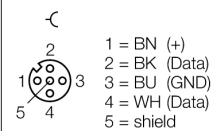
Ident-Nr. 6699201

Anbindung von TB- und TN-Schreib-Lese-Köpfen (Beispiel):

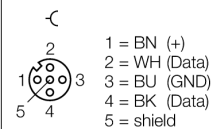
TN-CK40-H1147

Ident-Nr. 7030006

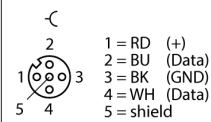
Connector .../S2500



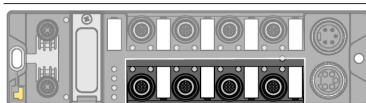
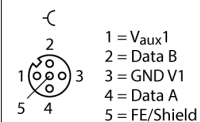
Connector .../S2501



Connectors .../S2503



Wiring Diagram



Accessories

Accessories:

Connection cable , 2-channel (example):

RK 4.4T-2-RS 4.4T

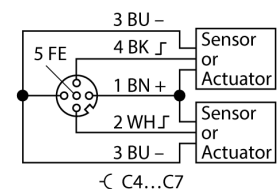
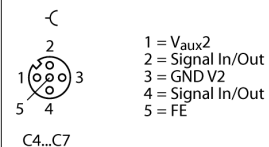
Ident no. U2445

Splitter, 1-channel (example):

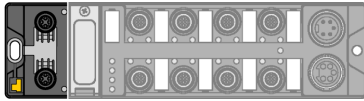
YB2-FSM 4.5-2FKM 4.5

Ident no. U0875-78

M12 x 1 I/O Port



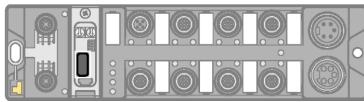
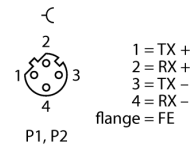
interface for 4 BL ident read-write heads (HF/UHF)
TBEN-L5-4RFID-8DXP-CDS



Accessories

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

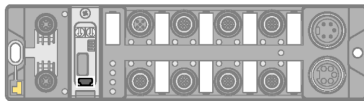
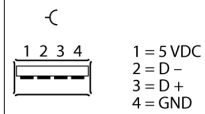
M12 x 1 Ethernet



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

