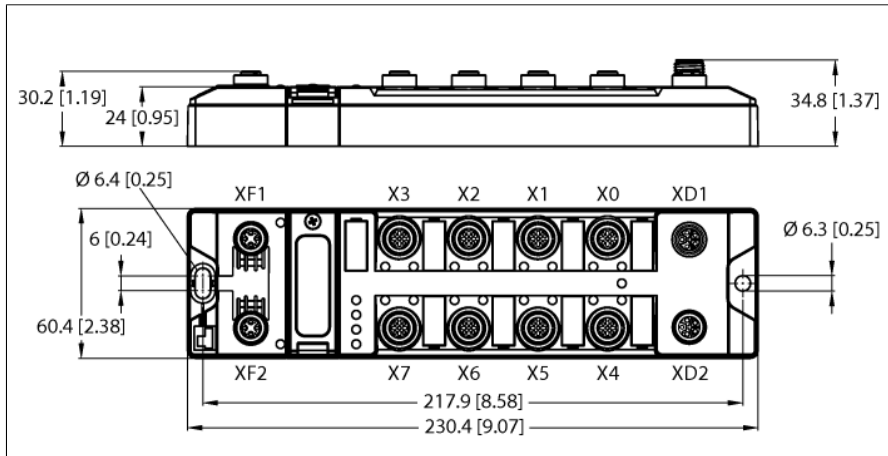


## Compact RFID Module for EtherCAT

### 4 RFID Channels (HF/UHF) and 8 Universal Digital Channels, Configurable as PNP Inputs or 2-A Outputs

#### TBEC-LL-4RFID-8DXP



- EtherCAT Slave acc. to Modular Device Profile
- Glass fiber reinforced housing
- Shock and vibration tested
- Fully potted module electronics
- Protection classes IP65, IP67, IP69K
- M12, L-coded connector for power supply
- Integration in PLC systems without special function block
- Up to 128 bytes of user data per read/write cycle per channel and use of fragments with 16 kilobytes of FIFO memory each
- Data interface for convenient use of the RFID functions
- Continuous HF bus mode with up to 32 HF read/write heads per channel
- 4 channels with M12 connector for RFID
- Mixed operation of HF and UHF read/write heads
- 8 universal digital channels, configurable as PNP inputs or 2-A outputs
- LED displays and diagnostics

<b>Type designation</b>	TBEC-LL-4RFID-8DXP
Ident-No.	100002925
<b>Supply</b>	
Supply voltage	24 VDC
Admissible range	18...30 VDC
	Total current V1 max. 8 A + V2 max. 9 A at 70 °C [UL: 55 °C] per module
Voltage supply connection	M12 L-coded connector
Operating current	V1: max. 150 mA V2: max. 100 mA
RFID supply $V_{AUX1}$	Slots X0...X3 from V1 Short-circuit proof, 2 A per channel at 70 °C [UL: 55 °C]
Sensor/Actuator supply $V_{AUX2}$	Slots X4...X7 from V2 Power supply Pin1 switchable per slot Short-circuit proof, 2 A per slot at 70 °C [UL: 55 °C]
Electrical isolation	galvanic isolation of the voltage groups V1 and V2, voltages up to 500 VAC
Power dissipation, typical	≤ 5 W
<b>System data</b>	
Fieldbus connection technology	2 x M12, 4-pin, D-coded
<b>EtherCAT</b>	
CAN over EtherCAT	acc. to modular device profile (ETG.5001.1)
Diagnostics	CoE Emergencies, DiagnosisHistory
Address allocation	Automatic/Explicit Device Identification
<b>RFID</b>	
Number of channels	4
Connectivity	M12
Power supply	2 A per channel at 70 °C [UL: 55 °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

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#### TBEC-LL-4RFID-8DXP

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#### 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
Electrical isolation	Galvanically isolated to the fieldbus Voltage proof up 500 VDC

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#### Digital outputs

Number of channels	8
Connectivity outputs	M12, 5-polig
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
Electrical isolation	Galvanically isolated to the fieldbus Voltage proof up 500 VDC

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#### Standard/Directive conformity

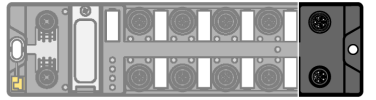
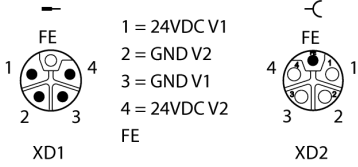
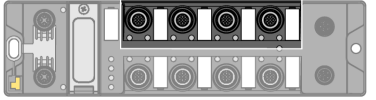
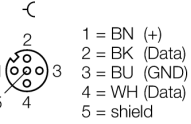
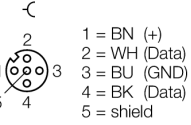
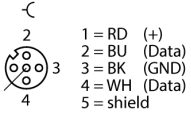
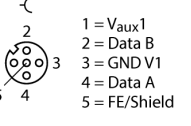
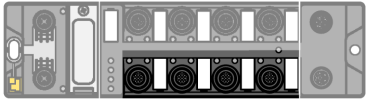
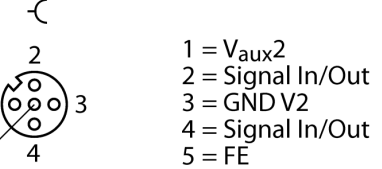
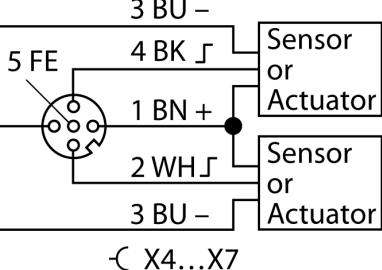
Vibration test	acceleration to 20 g acc. to EN 60068-2-6
Shock test	acc. to EN 60068-2-27
Drop and topple	acc. to EN 60068-2-31/IEC 60068-2-32
Electromagnetic compatibility	acc. to EN 61131-2
Approvals and certificates	CE, FCC, UV-resistant in accordance with DIN EN ISO 4892-2A (2013)
UL Certificate	cULus LISTED 21 W2, Encl.type 1 IND.CONT.EQ.

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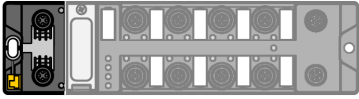
#### General Information

Dimensions (W x L x H)	60.4 x 230.4 x 39mm
Ambient temperature	-40...+70 °C UL: +55 °C
Storage temperature	-40...+85 °C
Altitude	max. 5000 m
Protection class	IP65 IP67 IP69K
MTTF	89 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 □ 6.3 mm

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**TBEC-LL-4RFID-8DXP**

	<p><b>Accessories</b>          Power supply cable (example):          Connection cable 2 m: RKP56PLB-2-RSP56PLB/TXG          Ident-No. 100003327          Connection cable 2 m: RKP56PLB-2/TXG          Ident-No. 100006303</p>	<p>M12 power supply, L-coded</p> 
	<p><b>Accessories</b>          RFID cable (example):          RFID cable 5M: RK4.5T-5-RS4.5T/S2500          Ident-no. 6699201          RFID cable 2M: RSCV-RKCV5500-2M/S2500          Ident-no. 6633193          Connection of TB and TN read/write heads (example):          TN-CK40-H1147          Ident-no. 7030006</p>	<p>Connector .../S2500</p>  <p>Connector .../S2501</p>  <p>.../S2503 Connector</p>  <p>Wiring Diagram</p> 
	<p><b>Accessories</b>          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</p>	<p>I/O port M12 × 1</p>  <p>X4...X7</p> 

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**Accessories**

Ethernet cable (example):  
 RSSD-RJ45S-4416-2M  
 Ident-no. 6441631

M12 × 1 Ethernet

