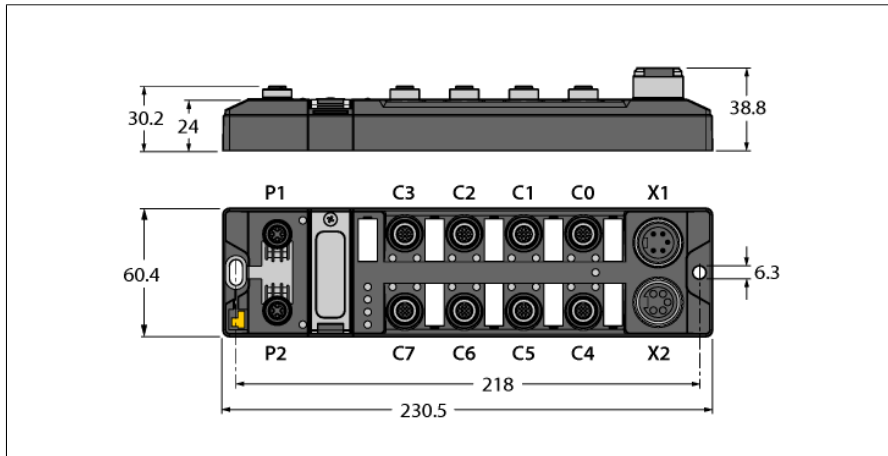


Compact RFID Module for OPC-UA

4 RFID Channels in Accordance with AutoID Companion Specification and 8 Universal Digital Channels, Configurable as PNP Inputs or 2-A Outputs

TBEN-L5-4RFID-8DXP-OPC-UA



- Integrated OPC UA server standardized according to the AutoID Companion Specification
- Calling of data via OPC UA clients
- Glass fiber reinforced housing
- Shock and vibration tested
- Fully potted module electronics
- Protection classes IP65, IP67, IP69K
- Universal interface offers interoperability
- Supports security mechanisms and authentication
- 4 channels with M12 connector for RFID
- 8 universal digital channels, configurable as PNP inputs or 2-A outputs
- Multiple LEDs for status display
- Integrated Ethernet switch allows line topology
- 10 Mbps/100 Mbps transmission rate

Type designation	TBEN-L5-4RFID-8DXP-OPC-UA
Ident-No.	6814126
Supply	
Supply voltage	24 VDC
Admissible range	18...30 VDC
	Total current V1 max. 8 A [UL: 7 A] + V2 max. 9 A at 70 °C [UL: 55 °C] per module
Voltage supply connection	5-pin male 7/8" connector X1
Operating current	V1: max. 200 mA V2: max. 50 mA
RFID supply V_{AUX1}	Slots C0...C3 from V1 Short-circuit proof, 2 A per channel at 70 °C, [UL: 1.74 A per channel at 55 °C]
Sensor/Actuator supply V_{AUX2}	Slots C4...C7 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	≤ 6.5 W

system description	
Processor	ARM Cortex A8, 32 bit, 800 MHz
Memory	256 MB Flash
RAM memory	512 MB DDR3
Add-on memory	1 x USB host port
Real time clock	yes

System data	
Transmission rate Ethernet	10 Mbps/100 Mbps
Connection technology Ethernet	2 x M12, 4-pin, D-coded
Web server	Default: 192.168.1.100

RFID	
Number of channels	4
Connectivity	M12
Power supply	2 A per channel at 70 °C [UL: 1.74 A per channel at 55 °C], short-circuit proof
Operation per channel	1x HF or UHF read/write head
Mixed operation of	HF and UHF read/write heads
Cable length	max. 50 m

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TBEN-L5-4RFID-8DXP-OPC-UA

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

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

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, FM Class I, Zone 2, UV-resistant in accordance with DIN EN ISO 4892-2A (2013)
UL Certificate	cULus LISTED 21 W2, Encl.type 1 IND.CONT.EQ.

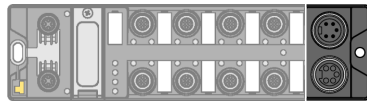
General Information

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	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

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TBEN-L5-4RFID-8DXP-OPC-UA



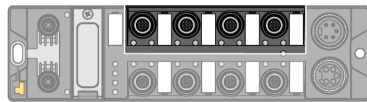
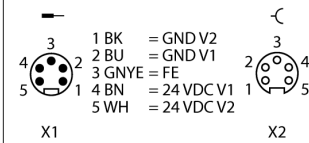
Accessories

Power supply cable (example):

RSM RKM 50-2M

Ident no. U2282-0

7/8" Power Supply



Accessories

RFID cable (example):

RK4.5T-5-RS4.5T/S2500

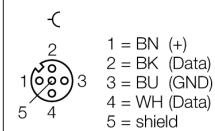
Ident. no. 6699201

Connection of TB and TN read/write heads (example):

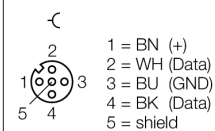
TN-CK40-H1147

Ident. no. 7030006

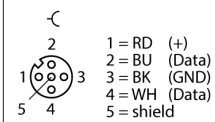
Connector .../S2500



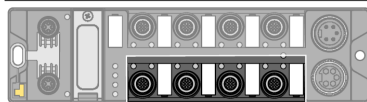
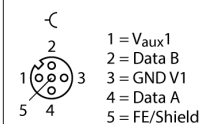
Connector .../S2501



.../S2503 Connectors



Wiring Diagram



Accessories

Accessories:

Connection cable , 2-channel (example):

RK 4.4T-2-RS 4.4T

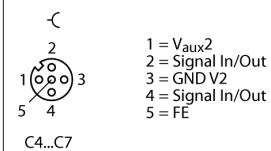
Ident no. U2445

Splitter, 1-channel (example):

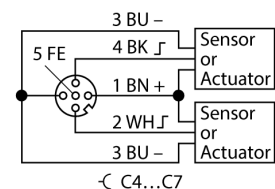
YB2-FSM 4.5-2FKM 4.5

Ident no. U0875-78

M12 × 1 I/O port



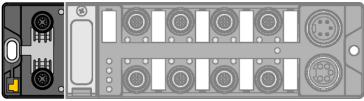
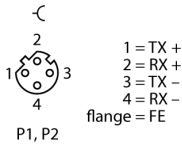
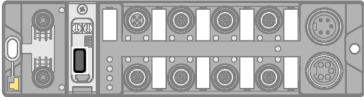
C4...C7



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TBEN-L5-4RFID-8DXP-OPC-UA

	Accessories Ethernet cable (example): RSSD-RJ45S-4416-2M Ident. no. 6441631	M12 × 1 Ethernet 
	USB Host Interface For use with USB sticks	USB 2.0 A Jack 