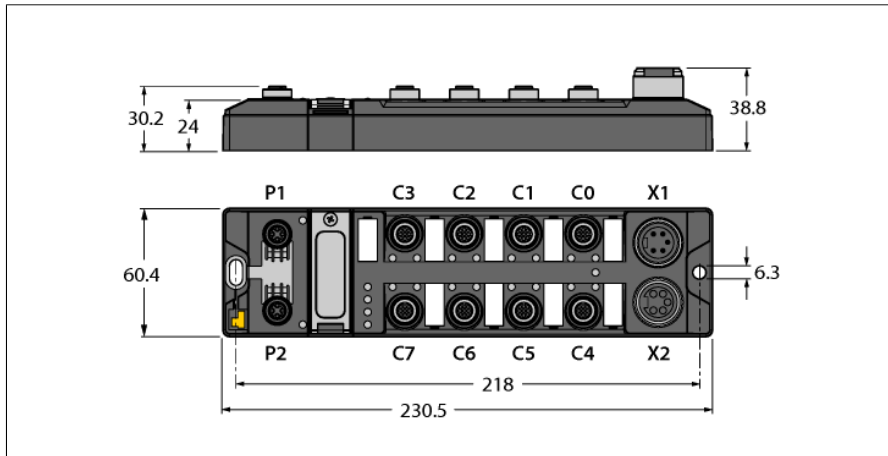


Compact RFID Module for Ethernet

RFID and I/O module with Windows Embedded Compact 2013 for Implementation with System Integrators

TBEN-L5-4RFID-8DXP-WIN



- TCP/IP
- Glass fiber reinforced housing
- Shock and vibration tested
- Fully potted module electronics
- Protection classes IP65, IP67, IP69K
- Freely programmable compact module based on Windows Embedded Compact 2013
- Programming language .Net, C ++, C#
- API and SDK available on request
- Implementation of the protocol for the read/write heads required
- 4 channels with M12 connector for RFID
- 8 digital channels, configurable as PNP inputs and/or 2 A outputs
- Several LEDs for status display
- Integrated Ethernet switch allows line topology
- 10 Mbps/100 Mbps transfer rate

Type designation	TBEN-L5-4RFID-8DXP-WIN
Ident no.	6814122

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 X1
Operating current	V1: max. 200 mA V2: max. 50 mA
RFID supply V_{AUX1}	Ports C0-C3 from V1
Sensor/Actuator supply V_{AUX2}	Short-circuit proof, 2 A per channel at 70 °C Slots C4...C7 from V2
Electrical isolation	Power supply Pin1 switchable per socket Short-circuit proof, 2 A per slot at 70 °C 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
Real time clock	yes
Operating system	Windows Embedded Compact 2013

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

RFID	
Number of channels	4
Connectivity	M12
Power supply	2 A per channel at 70 °C, short-circuit proof
Operation per channel	1x HF or UHF read/write head
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
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

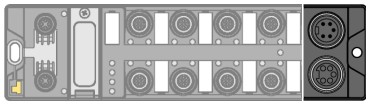
Standard/Directive conformity

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

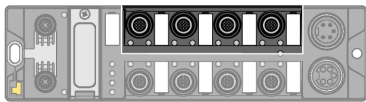
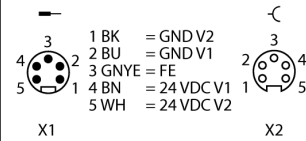
Dimensions (W x L x H)	60.4 x 230.4 x 39mm
Operating temperature	-40...+70 °C
Storage temperature	-40...+85 °C
Altitude	max. 5000 m
Protection class	IP65 IP67 IP69K
MTTF	75 years acc. to SN 29500 (Ed. 99) 20 °C
Housing material	PA6-GF30
Housing color	Black
Window material	Lexan
Material screw	303 stainless steel
Material label	Polycarbonate
Halogen-free	yes
Mounting	2 mounting holes Ø 6.3 mm

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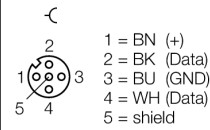
Note
Power supply cable (example):
RKM52-1-RSM52
ID number 6914149

7/8" Power Supply

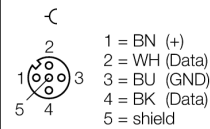


Note
RFID cable (example):
RK4.5T-5-RS4.5T/S2500
ID No. 6699201

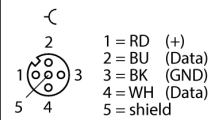
.../S2500 Connectors



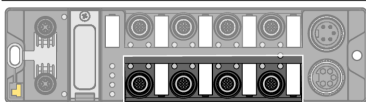
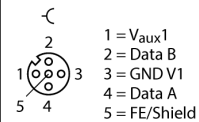
.../S2501 Connectors



Connectors .../S2503

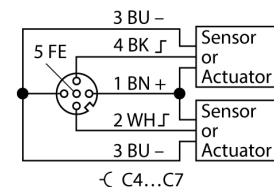
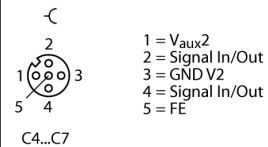


Wiring diagram

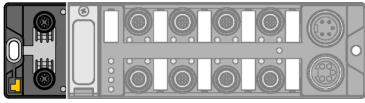


Note
Actuator and sensor cable/PUR connection cable (example):
RKC4.4T-2-RSC4.4T/TXL
Ident. no. 6625608
Connection cable with Y piece for single assignment
FSM4-2WAK3-1/1/P00
Ident. no. 8009560

M12 x 1 I/O Port



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Note

Ethernet cable (example):

RSSD-RJ45S-4416-2M

Ident. no. 6441631

M12 x 1 Ethernet

