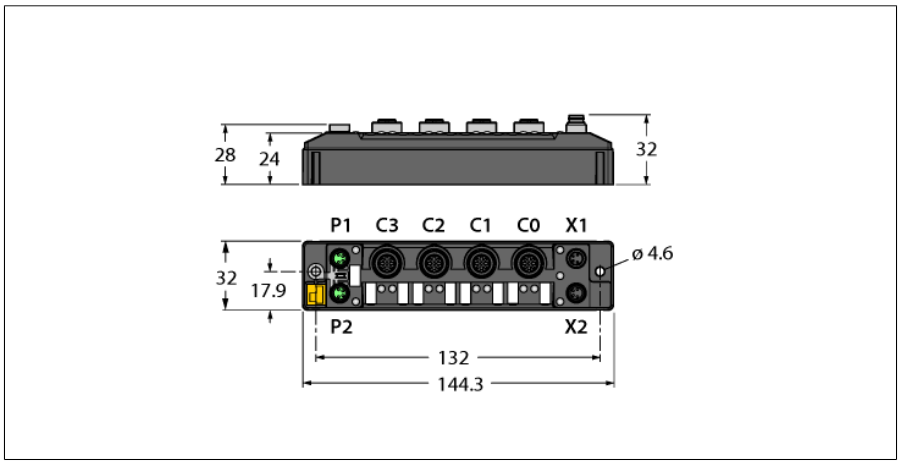
Compact Multiprotocol RFID Module for Ethernet interface for 2 BL ident read-write heads (HF/UHF)
TBEN-S2-2RFID-4DXP



Type designation	TBEN-S2-2RFID-4DXP
Ident-No.	6814029
Supply	
Supply voltage	24 VDC
Admissible range	18…30 VDC total current max. 4 A per voltage group; total current V1 + V2 max. 5.5 A at 70 °C per module
Voltage supply connection	2 × M8, 4-pin
Operating current	V1: max. 120 mA V2: max. 30 mA
RFID supply V_{AUX1}	Ports C0-C1, V1 short-circuit proof, 1.2 A ≤ 55 °C, 55 °C < 0.5 A ≤ 70 °C per channel
Sensor/Actuator supply V_{AUX2}	Supply ports C2-C3 from V2 short-circuit proof, 0.14 A ≤ 55 °C, 55 °C < 0.05 A ≤ 70 °C
Electrical isolation	galvanic isolation of the voltage groups V1 and V2, voltages up to 500 VAC
System data	
Transmission rate Ethernet	10 Mbps / 100 Mbps
Connection technology Ethernet	2 x M8, 4-pin, D-coded
Protocol detection	automatic
Web server	Default: 192.168.1.254
Service interface	Ethernet via P1 or P2
Field Logic Controller (FLC)	
ARGEE Firmware Version	3.3.5.0
ARGEE Engineering Version	2.0.26.0
Modbus TCP	
Addressing	Static IP, BOOTP, DHCP
Supported function codes	FC1, FC2, FC3, FC4, FC5, FC6, FC15, FC16, FC23
Number of TCP connections	8
Input register start address	0 (0x0000 hex)
Output register start address	2048 (0x0800 hex)
EtherNet/IP™	
Addressing	acc. to EtherNet/IP™ specification
Quick Connect (QC)	< 500 ms
Device Level Ring (DLR)	supported
Class 3 connections (TCP)	3
Class 1 connections (CIP)	10
Input Assembly Instance	103
Output Assembly Instance	104
Configuration Assembly Instance	106

- **PROFINET® device, EtherNet/IP™ device or Modbus® TCP slave**
- **PROFINET® S2 system redundancy**
- **Integrated Ethernet switch**
- **Supports 10 Mbps / 100 Mbps**
- **Glass fiber reinforced housing**
- **Shock and vibration tested**
- **Fully potted module electronics**
- **Protection classes IP65, IP67, IP69K**
- **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, each of which have 16 kilobytes of FIFO memory**
- **Data interface for convenient use of RFID functionality**
- **Continuous HF bus mode with up to 32 HF read/write heads per channel**
- **2 channels with M12 connection for RFID**
- **Mixed operation of HF and UHF read/write heads**
- **4 configurable digital channels, as PNP inputs or 0.5 A outputs**
- **Integrated web server**
- **LED displays and diagnostics**
- **FLC/ARGEE programmable**

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PROFINET	
Addressing	DCP
Conformance class	B (RT)
MinCycleTime	1 ms
Fast Start-Up (FSU)	< 500 ms
Diagnostics	acc. to PROFINET alarm handling
Topology detection	supported
Automatic addressing	supported
Media Redundancy Protocol (MRP)	supported
System redundancy	S2
RFID	
Number of channels	2
Connectivity	M12
Power supply	1.2 A ≤ +55 °C, +55 °C < 0.5 A ≤ +70 °C per channel, short-circuit proof
Operation per channel	1x 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	4
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
Input delay	0.05 ms
Electrical isolation	Galvanically isolated to the fieldbus Voltage proof up 500 VDC
Digital outputs	
Number of channels	4
Connectivity outputs	M12, 5-pol
Output type	PNP
Type of output diagnostics	Channel diagnostics
Output voltage	24V DC from potential group V2
Output current per channel	0.5 A, short-circuit proof
Simultaneity factor	1 (0.03 >55°C)
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, 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)	32 x 144 x 32mm
Operating temperature	-40…+70 °C
Storage temperature	-40…+70 °C
Altitude	max. 5000 m
Protection class	IP65 IP67 IP69K
MTTF	179 years acc. to SN 29500 (Ed. 99) 20 °C
Housing material	PA6-GF30
Housing color	Black
Material label	Polycarbonate
Halogen-free	yes
Mounting	2 mounting holes □ 4.6 mm

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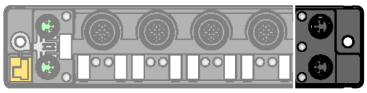
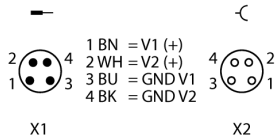
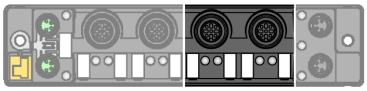


Accessories
Power supply cable (example):
M8-M8 2 m
PKG 4M-2-PSG 4M
Ident. no. U99-10815

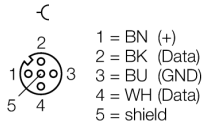
M8 x 1 Voltage Supply



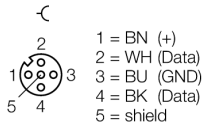


Accessories
RFID cable (example):
RK4.5T-5-RS4.5T/S2500
ID number 6699201
Connection of TB and TN read/write heads (example):
TN-CK40-H1147
ID number 7030006

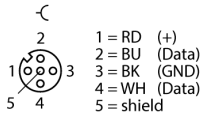
Connector …/S2500



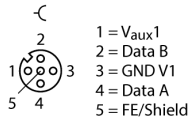
Connector …/S2501

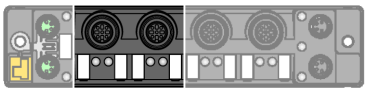


Connectors …/S2503



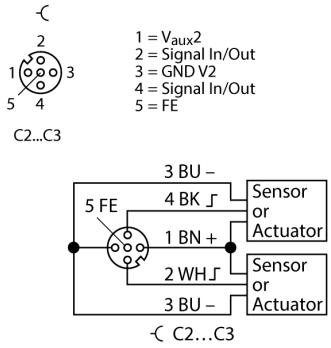
Wiring Diagram





Accessories
Actuator and sensor cable/PUR cable (example):
RKC4.4T-2-RSC4.4T/TXL
Ident. no. 6625608
Connection cable with Y piece for single assignment
VBRS4.4-2RKC4T-1/1/TXL
Ident-No. 6628112

M12 x 1 I/O Port



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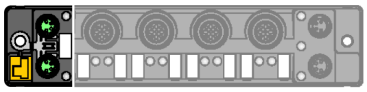


Accessories

It is strongly recommended to use only ready-made Ethernet cables!

Ethernet cable (example):

M8-M8:

PSGS4M-PSGS4M-4413-1M

Ident. no. U-55718

M8-RJ45:

PSGS4M-RJ45S-4413-1M

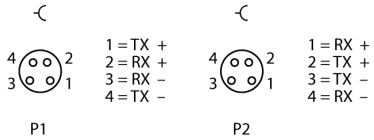
Ident. no.: U-55725

M8-M12:

RSSD-PSGS4M-4413-1M

Ident. no.: U-58840

M8 x 1 Ethernet



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