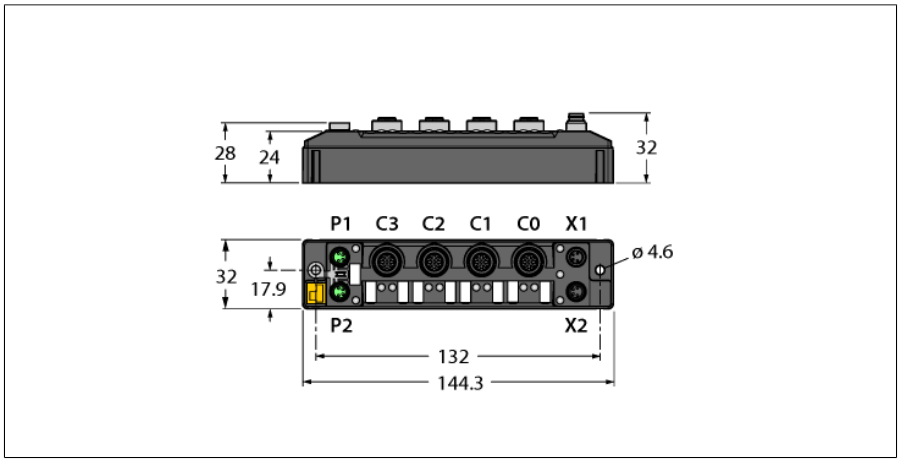
Compact Multiprotocol RFID Module for Ethernet interface for 2 BL ident read-write heads (HF/UHF) TBEN-S2-2RFID-4DXP



Type	TBEN-S2-2RFID-4DXP
ID	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, A-coded
Operating current	V1: max. 120 mA V2: max. 30 mA
RFID supply $V_{AUX\,1}$	Ports C0-C1, V1 short-circuit proof, 1.2 A ≤ 55 °C, 55 °C < 0.5 A ≤ 70 °C per channel
Sensor/actuator supply	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
Power dissipation, typical	≤ 2 W
System data	
Transmission rate Ethernet	10/100 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
ARGEE functionality	Supported
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, FC6, FC15, FC16, FC23
Number of TCP connections	8
Input register start address	0 (0x0000 hex)
Output register start address	2048 (0x0800 hex)

- 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
- ATEX zone 2/22
- CCC-Ex
- 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
- 2 channels with M12 connection for RFID
- 4 universal digital channels, configurable as PNP inputs or 0.5 A outputs
- Programmable ARGEE

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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	
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	1 × HF or UHF read/write head, up to 32 bus-compatible HF read/write heads with termination/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-pin
Output type	PNP
Type of output diagnostics	Channel diagnostics
Output voltage	24 VDC 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

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Standard/Directive conformity	
Vibration test	Acc. to EN 60068-2-6 Acceleration up to 20 g
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 and UKCA FCC statement, UV resistant acc. to DIN EN ISO 4892-2A (2013)
UL Certificate	cULus LISTED 21 W2, Encl.Type 1 IND.CONT.EQ.
Note on ATEX/IECEx	The Quick Start Guide with information on use in Ex areas must be observed.

General Information	
Dimensions (W x L x H)	32 x 144 x 32 mm
Ambient temperature	-40…+70 °C
Storage temperature	-40…+85 °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
Connector material	Nickel-plated brass
Material label	Polycarbonate
Halogen-free	yes
Mounting	2 mounting holes □ 4.6 mm

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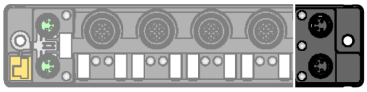
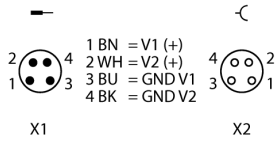
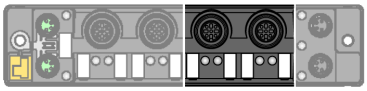


Accessories
Power supply cable (example):
M8-M8 2 M (2.0 Amp)
PKG 4M-2-PSG 4M
Ident. No. U99-10815
M8-M8 2 M (4.0 Amp)
PKGC 4M-2-PSGC 4M
Ident. No. U-82319

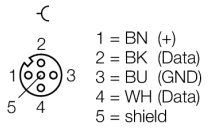
M8 x 1 Voltage Supply



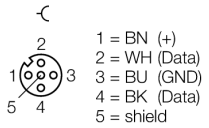


Accessories
RFID cable (example):
RK 4.5T-5-RS 4.5T/S2501
Ident no. U3-01247
TN read/write head (example):
TN-CK40-H1147
Ident no. 7030006

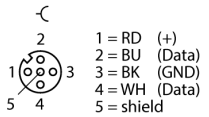
Connector …/S2500



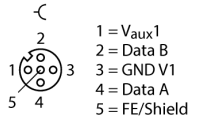
Connector …/S2501

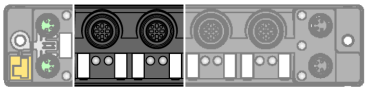


Connectors …/S2503



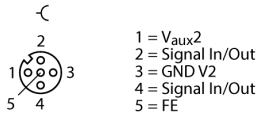
Wiring Diagram

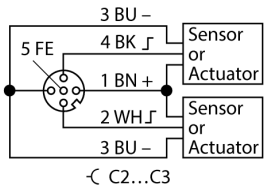




Accessories
Extension cable , 2-channel (example):
RK 4.4T-2-RS 4.4T
Ident no. U2445
Splitter, 1-channel (example):
YB2-FSM 4.5-2FKM 4.5
Ident no. U0875-78
Extension cable , 2-channel (example):
EKRT-ESRT-A4.400-GC2K-2
Ident no. UX19102

M12 x 1 I/O Port





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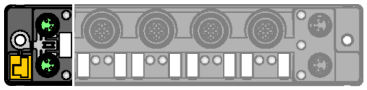

Accessories

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