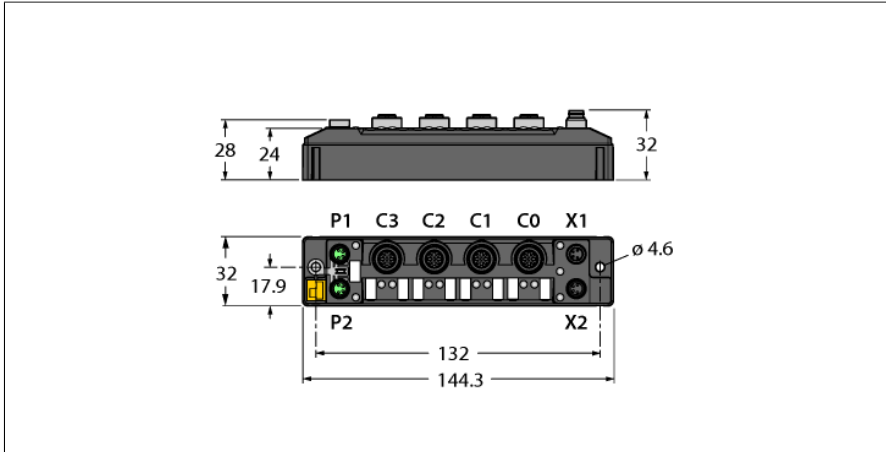


Compact Multiprotocol RFID Module for Ethernet 2 RFID Channels (HF/UHF) and 4 Universal Digital Channels, Configurable as PNP Inputs or 0.5-A Outputs TBEN-S2-2RFID-4DXP



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 x M8, 4-pin, A-coded
Operating current	V1: max. 120 mA V2: max. 30 mA
RFID supply V_{AUX1}	Ports C0-C1, V1 short-circuit proof, 1.2 A \leq 55 °C, 55 °C < 0.5 A \leq 70 °C per channel
Sensor/actuator supply	Supply ports C2-C3 from V2 short-circuit proof, 0.14 A \leq 55 °C, 55 °C < 0.05 A \leq 70 °C
Electrical isolation	galvanic isolation of the voltage groups V1 and V2, voltages up to 500 VAC
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
Field Logic Controller (FLC)	
ARGEES Firmware Version	3.3.5.0
ARGEES 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)

- 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
- 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

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

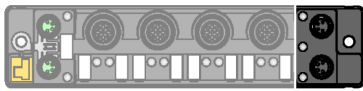
RFID	
Number of channels	2
Connectivity	M12
Power supply	1.2 A ≤ 55 °C, 55 °C < 0.5 A ≤ 70 °C per channel, short-circuit proof
Operation per channel	1 × HF or UHF read/write head, up to 32 bus-compatible HF read/write heads with termination/C53 (additional power supply may be needed)
RFID data interface	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

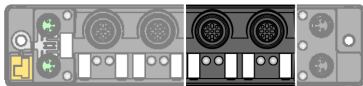
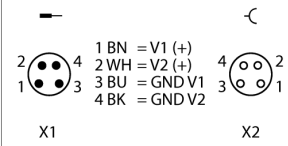
Standard/Directive conformity	
Vibration test	Acc. to EN 60068-2-6 Acceleration up to 20 g
Shock test	acc. to EN 60068-2-27
Drop and topple	acc. to EN 60068-2-31/IEC 60068-2-32
Electromagnetic compatibility	Acc. to EN 61131-2
Approvals and certificates	CE FCC statement, UV resistant acc. to DIN EN ISO 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 Zones 2 and 22 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
Male connector material	Nickel-plated brass
Material label	Polycarbonate
Halogen-free	yes
Mounting	2 mounting holes □ 4.6 mm



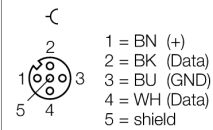
Note
 Power supply cable (example):
 M8-M8
 ID number 6627044 PKG4M-0,2-PSG4M/TXL
 ID number 6626679 PKG4M-4-PSG4M/TXL

M8 x 1 Voltage Supply

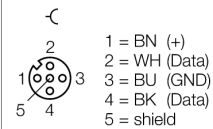


Note
 RFID cable (example):
 RK4.5T-5-RS4.5T/S2500
 ID number 6699201
 Connection of TB and TN read/write heads (example):
 TN-CK40-H1147
 ID number 7030006

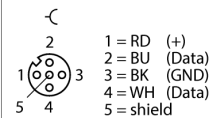
.../S2500 Connectors



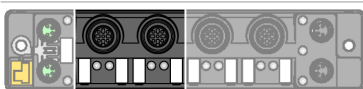
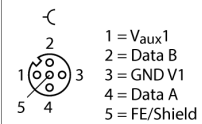
.../S2501 Connectors



Connectors .../S2503

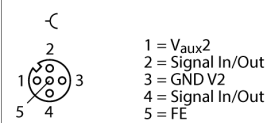


Wiring diagram

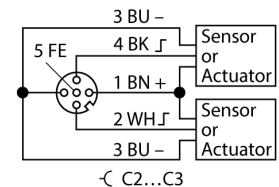


Note
 Actuator and sensor cable/PUR cable (example):
 RKC4.4T-2-RSC4.4T/TXL
 Ident. no. 6625608
 Connection cable with Y piece for single assignment
 VBRS4.4-2RKC4T-1/1/TXL
 Ident-No. 6628112

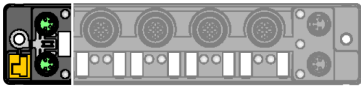
M12 x 1 I/O Port



C2...C3



C2...C3



Note

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

Ethernet cable (example):

M8-M8:

ID number 6630376 PSG4M-0,2-PSG4M/TXN

ID number 6934033 PSGS4M-PSGS4M-4416-1M

M8-RJ45:

ID number 6935342 PSGS4M-RJ45S-4416-1M

M8-M12:

ID number 6935351 RSSD-PSGS4M-4416-2M

M8 x 1 Ethernet

