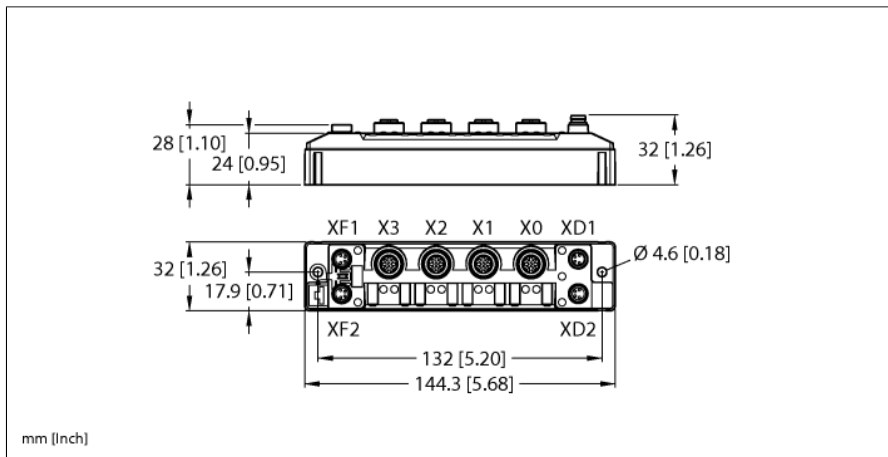


Compact RFID Module for EtherCAT 4 RFID Channels (HF/UHF) TBEC-S2-4RFID



Type	TBEC-S2-4RFID
ID	100014935
Supply	
Supply voltage	24 VDC
Admissible range	18...30 VDC total current max. 4 A per voltage group
Operating current	V1: max. 120 mA
RFID supply V_{AUX1}	Slots X0...X3 from V1 short-circuit proof, 2 A ≤ 70 °C per channel, total current for RFID supply max. 3.8 A
Electrical isolation	galvanic isolation of the voltage groups V1 and V2, voltages up to 500 VAC
Power dissipation, typical	≤ 5 W
System data	
Fieldbus connection technology	2 × M8, 4-pin, A-coded
Service interface	EoE via XF1 or XF2
EtherCAT	
CAN over EtherCAT	acc. to modular device profile (ETG.5001.1)
Diagnostics	CoE Emergencies, DiagnosisHistory
Address allocation	Automatic/Configured Station Alias
RFID	
Number of channels	4
Connectivity	M12
Power supply	2 A per channel at 70 °C, short-circuit proof, total current for RFID supply max. 3.8 A
Operation per channel	1 × 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

- EtherCAT device acc. to Modular Device Profile
- 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 as well as the 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
- 4 channels with M12 connection for RFID

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 UKCA ATEX zone 2/22 CCC-Ex 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	234 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, Ø 4.6 mm



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 × 1 power supply



2 4
1 3

XD1



4 2
3 1

XD2

1 = V1 (+)
2 = V2 (+)
3 = GND V1
4 = GND V2



Accessories

RFID cable (example):

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

ID 6699201

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

TN-CK40-H1147

ID 7030006

Connector .../S2500



2 3
1 4
5

1 = BN (+)
2 = BK (Data)
3 = BU (GND)
4 = WH (Data)
5 = shield

Connector .../S2501



2 3
1 4
5

1 = BN (+)
2 = WH (Data)
3 = BU (GND)
4 = BK (Data)
5 = shield

.../S2503 connectors



2 3
1 4
5

1 = RD (+)
2 = BU (Data)
3 = BK (GND)
4 = WH (Data)
5 = shield

Wiring Diagram



2 3
1 4
5

1 = V_{aux}1
2 = Data B
3 = GND V1
4 = Data A
5 = FE/Shield



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 × 1 Ethernet



4 2
3 1

XF1



4 2
3 1

XF2

1 = TX+
2 = RX+
3 = RX-
4 = TX-

1 = RX+
2 = TX+
3 = TX-
4 = RX-