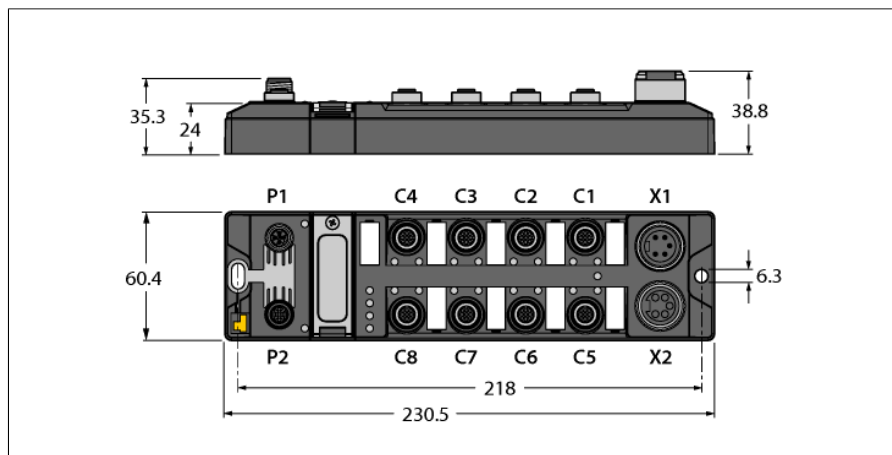


Fieldbus I/O module PROFIBUS-DP

16 Digital PNP Outputs 2 A

TBDP-L2-16DOP



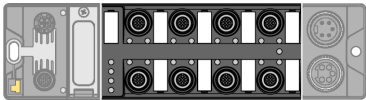
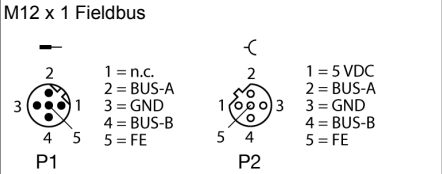
Type	TBDP-L2-16DOP
ID	6814003
Supply	
Supply voltage	24 VDC
Admissible range	18...30 VDC Total current max. 9 A per voltage group Total current V1 + V2 max. 11 A
Voltage supply connection	7/8", 5-pin
Sensor/actuator supply	supply of ports C1-C8 from V2 short-circuit proof, 120 mA per port
Electrical isolation	galvanic isolation of the voltage groups V1 and V2, voltages up to 500 VAC
System data	
Fieldbus transmission rate	9.6 kbps ...12 Mbps
Fieldbus connection technology	2 × M12, 5-pin, reverse-coded
Fieldbus addressing	0...126 (decimal) via three rotary coding switches
Digital outputs	
Number of channels	16
Connectivity outputs	M12, 5-pin
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. 2.0 A per port
Output delay	1.3 ms
Load type	EN 60947-5-1: DC-13
Short-circuit protection	yes
Electrical isolation	Galvanically isolated to the fieldbus Voltage proof up 500 VDC

- 2 × M12, 5-pin, B-coded, PROFIBUS-DP-Fieldbus connection
- Glass fiber reinforced housing
- Shock and vibration tested
- Fully potted module electronics
- Protection classes IP65, IP67, IP69K
- ATEX zone 2/22
- CCC-Ex
- Max. 2 A per output
- Output diagnostics per channel

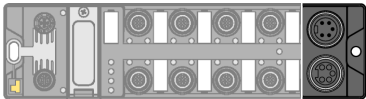
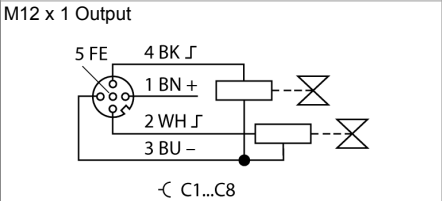
Standard/Directive conformity	
Vibration test	Acc. to EN 60068-2-6 Acceleration up to 20 g
Shock test	acc. to EN 60068-2-27
Drop and topple	acc. to EN 60068-2-31/IEC 60068-2-32
Electromagnetic compatibility	Acc. to EN 61131-2
Approvals and certificates	CE UKCA ATEX zone 2/22 CCC-Ex FCC statement, UV 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)	60.4 x 230.4 x 39 mm
Ambient temperature	-40...+70 °C
Storage temperature	-40...+85 °C
Altitude	Max. 5000 m
Protection class	IP65 IP67 IP69K
MTTF	189 years
Housing material	PA6-GF30
Housing color	Black
Connector material	Nickel-plated brass
Window material	Lexan
Material screw	303 stainless steel
Material label	Polycarbonate
Halogen-free	yes
Mounting	2 mounting holes □ 6.3 mm



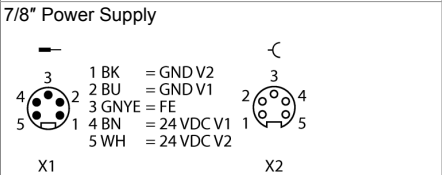
Accessories
PROFIBUS-DP cable (example):
RSSW RKSX 455-2M
Ident no. U0350



Accessories
Accessories:
Connection 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



Accessories
Power supply cable (example):
RSM RKM 50-2M
Ident no. U2282-0



Module Status LED

LED	Color	Status	Description
BUS	Green	ON	PROFIBUS online
	Red	ON	PROFIBUS offline
		OFF	Power off
ERR	Green	ON	Diagnostics disabled
	Red	ON	Diagnostics enabled
PWR	Green	On	V ₁ and V ₂ power supply OK
	Red	On	V ₂ power supply off or V ₂ undervoltage
		Off	V ₁ power supply off or V ₁ undervoltage

LED Status I/O

LED	Color	Status	Description
LED 1 ... 16	Green	ON	Output active
	Red	ON	Output active with overload/short circuit
		flashing	Power overload at the corresponding port. Both port LEDs are flashing.
		OFF	Output inactive

Process Data Mapping of the Single Protocols

For more details on the corresponding protocols see manual.

PROFIBUS process data

	Byte	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Outputs	0	DO8 C4P2	DO7 C4P4	DO6 C3P2	DO5 C3P4	DO4 C2P2	DO3 C2P4	DO2 C1P2	DO1 C1P4
	1	DO16 C8P2	DO15 C8P4	DO14 C7P2	DO13 C7P4	DO12 C6P2	DO11 C6P4	DO10 C5P2	DO9 C5P4
Diagnostics Input	0	SCS8	SCS7	SCS6	SCS5	SCS4	SCS3	SCS2	SCS1
	1	SCO8	SCO7	SCO6	SCO5	SCO4	SCO3	SCO2	SCO1
	2	SCO16	SCO15	SCO14	SCO13	SCO2	SCO11	SCO10	SCO9

Accessories

Type code	Ident-No.		Dimension drawing
TB-SG-L	100014865	Protective housing for TBEN-L and TBIL-M block I/O modules for use in ATEX Zone 2/22	