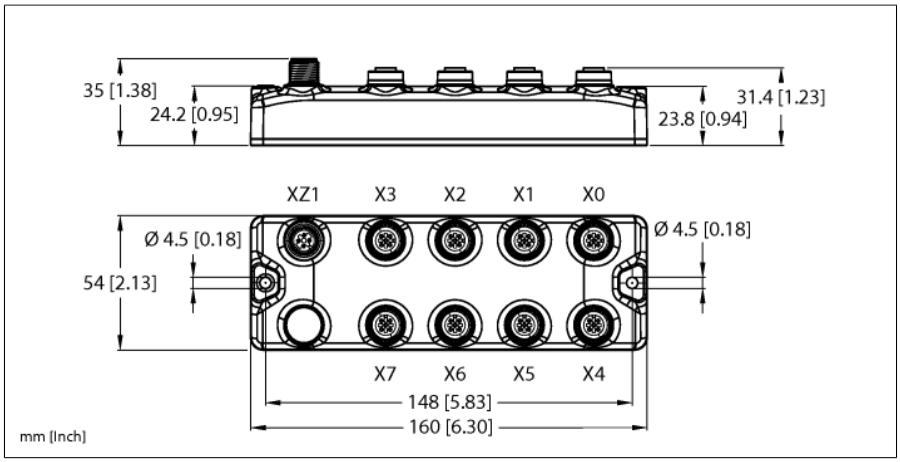
I/O Hub for Connecting Digital Signals to IO-Link Master
16 Universal Digital Channels, PNP
Efficiency Line
TBIL-EMN-16DXP





- IO-Link V1.1 Class A
- 2 universal digital channels per port
- I&M data sets support installation and maintenance
- IO-Link diagnostics for short circuit and supply voltage

ID	100051094
Supply	
Supply voltage	24 VDC
Admissible range	18...30 VDC V1 max 4 A Total output current max. 3.8 A UL rating: SELV/PELV power supply
Voltage supply connection	M12
Operating current	< 200 mA
Sensor/actuator supply	Class-A supply from V1 Short-circuit proof, 120 mA per slot
Digital inputs	
Number of channels	16 digital PNP inputs (EN 61131-2)
Connectivity inputs	M12
Type of input diagnostics	Group diagnostics
Low-level signal voltage	-3…5 VDC (EN 61131-2, type 1 and 3)
High level signal voltage	11…30 VDC (EN 61131-2, type 1 and 3)
Electrical isolation	inputs to FE 500VDC
Max. input current	7 mA
Digital outputs	
Number of channels	16 digital PNP outputs
Connectivity outputs	M12
Output type	PNP
Type of output diagnostics	Group diagnostics
Output voltage	24 VDC from supply voltage
Output current per channel	0.35 A per channel
Simultaneity factor	0.35
Load type	resistive, inductive, lamp load
Short-circuit protection	yes
Electrical isolation	Outputs to FE 500 VDC

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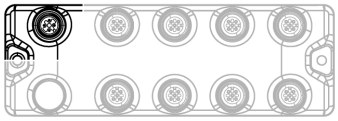
IO-Link	
Connectivity IO-Link	1 × M12
IO-Link specification	V 1.1
IO-Link port type	Class A
Frame type	2.6
Transmission rate	COM 2 / 38.4 kbps
Programming	IODD, TAS, TBEN IOL-Master
Transmission physics	corresponds to 3-wire physics (PHY2)

Standard/Directive conformity	
Vibration test	Acc. to EN 60068-2-6
	Acceleration up to 15 g
Shock test	Acc. to EN 60068-2-27
Drop and topple	Acc. to IEC 60068-2-31/IEC 60068-2-32
Electromagnetic compatibility	Acc. to EN 61131-2:2007
Approvals and certificates	CE
	UKCA
UL Certificate	cULus LISTED 21 W2, encl. Type 1 IND.CONT.EQ.

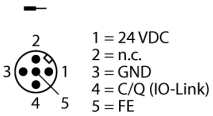
General Information	
Dimensions (W x L x H)	54 x 160 x 35 mm
Ambient temperature	-25…+60 °C
Storage temperature	-40…+85 °C
Protection class	IP67
	Indoor use
MTTF	314 years
Housing material	Polycarbonate
Mounting	2 mounting holes Ø 4.5 mm

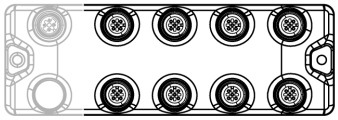
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Pinning and wiring diagram

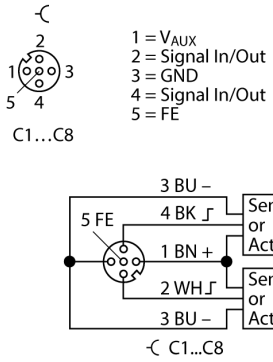


M12 × 1 IO-Link





M12 × 1 I/O slot



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Module LED status

LED	Color	Status	Description
IO-Link	Green	OFF	Power off
		Flashing	IO-Link communication OK, valid process data is sent or received
	Red	ON	IO-Link communication or module error
		Flashing	IO-Link communication OK, invalid process data or diagnosis enabled

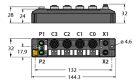
I/O LED Status

LED	Color	Status	Description
C1 A/B…C8 A/B	Green	On	Input or output active
	Red	On	Output active with overload/short circuit
		Flashing	Power overload at the corresponding slot. Both slot LEDs are flashing.
		Off	Input or output inactive

C… = slot number, A/B = signal LED (signal A = pin 4, signal B = pin 2)

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Function accessories

Type code	Ident-No.		Dimension drawing
TBEN-S2-4IOL	6814024	Compact multiprotocol I/O module, 4 IO-Link Master 1.1 Class A, 4 universal PNP digital channels 0.5 A	

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