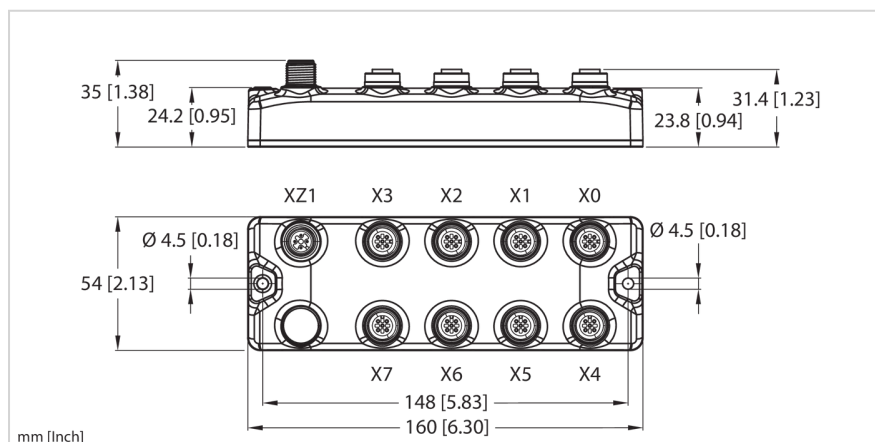


TBIL-EMN-16DXP

I/O Hub for Connecting Digital Signals to IO-Link Master

16 Universal Digital Channels, PNP



Typ	TBIL-EMN-16DXP
Ident-No.	100051094

Technical data

General data	
Actuator power supply	Max. 120 mA per slot
Admissible range	18...30 VDC V1 max. 4 A
Operating / load voltage	Total current max. 4 A per module 18...30 VDC
Operating current	< 200 mA
Sensor/actuator supply	Class-A supply from V1 Short-circuit proof, 120 mA per slot
Sensor supply	Max. 120 mA per slot
Supply voltage	24 VDC
Voltage supply connection	M12
Electrical data	

Features

- IO-Link V1.1 Class A
- Shock and vibration tested
- Protection class IP67
- 2 universal digital channels per slot
- I&M data sets support installation and maintenance
- IO-Link diagnostics for short circuit and supply voltage

Technical data

Short-circuit protection	yes
System data	
connection_technology_signal	M12
Signal type	Digital output Digital input Digital input/output
Electrical specifications	
Number of channels	16
Inputs	
Connectivity inputs	M12
High level signal voltage	11...30 VDC (EN 61131-2, type 1 and 3)
Low-level signal voltage	-3...5 VDC (EN 61131-2, type 1 and 3)
Max. input current	7 mA
Number of channels	16 digital PNP inputs (EN 61131-2)
Digital inputs	
Electrical isolation	inputs to FE 500VDC
Type of input diagnostics	Group diagnostics
Outputs	
Connectivity outputs	M12
Load type	resistive, inductive, capacitive
Number of channels	16 digital PNP outputs
Output current per channel	0.35 A per channel
Output voltage	24 VDC from supply voltage
Digital outputs	

Technical data

Electrical isolation	Outputs to FE 500 VDC
Output type	PNP
Type of output diagnostics	Group diagnostics
IO-Link	
IO-Link specification	V 1.1
IO-Link port type	Class A
Transmission physics	corresponds to 3-wire physics (PHY2)
Transmission rate	COM 2 / 38.4 kbps
Frame type	2.6
Minimum cycle time	2,3 ms
Connectivity IO-Link	1 × M12
Programming	IODD, TAS, TBEN IOL master
Mechanical data	
Dimensions	160 mm x 54 mm x 35 mm
Housing material	Polycarbonate
Output connectivity	8 x M12
Input connectivity	8 x M12
Mounting	2 mounting holes, Ø 4.5 mm
Ambient conditions	
Ambient temperature	-25...+60 °C
Storage temperature	-40...+85 °C
Altitude	max. 5000 m
Electromagnetic compatibility	Acc. to EN 61131-2:2007
Shock test	Acc. to EN 60068-2-27

Technical data

Vibration test	Acc. to EN 60068-2-6
Protection class	IP67
Standards/directives	
Drop and topple	Acc. to IEC 60068-2-31/IEC 60068-2-32
Tests/approvals	
Approvals and certificates	CE UKCA
Approvals	CE
MTTF	226 years
Remarks	
Packaging unit	1

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

<i>LED</i>	<i>Color</i>	<i>Status</i>	<i>Description</i>
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)