



IO-Link master

ICE1-8IOL-S2-G60L-V1D

- Multiprotocol-compatible
- M12 power connector
- Sturdy metallic housing
- Web-based configuration
- PROFINET S2 system redundancy

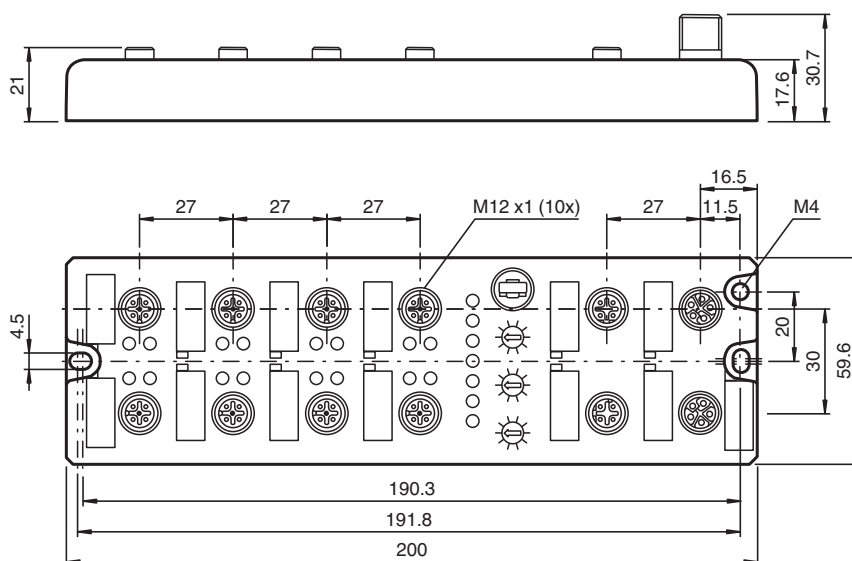
Ethernet IO-Link master with PROFINET S2 redundancy



Function

The module is a multiprotocol fieldbus module with 4 type A and 4 type B IO-Link master ports according to IO-Link standard V1.1. The design in fully cast metal housing is resistant to mechanical damage and due to its high degree of protection to environmental influences. The fieldbus module serves as an interface between the controller of a fieldbus system and the field level. Thanks to its multiprotocol capability, the fieldbus module supports the Ethernet communication protocols PROFINET and EtherNet/IP. For applications with the highest demands on system availability, the module supports PROFINET S2 system redundancy when used in a PROFINET network. The module can thus simultaneously establish an application relationship (AR) to two PROFINET controllers. An L-coded M12 connector plug used for supplying power enables a current rating of up to 2 x 16 A. The inputs and outputs are equipped with A-coded M12 connector plugs. Connection to the fieldbus is achieved using a D-coded M12 connector plug. The communication protocols are configured either manually via a rotary switch or automatically. Status information for each channel is displayed via LEDs as a diagnostic function. An integrated web server enables access to the fieldbus module. Information regarding the status of the module is also displayed and network parameters such as the IP address and subnet mask can be configured.

Dimensions



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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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Technical Data

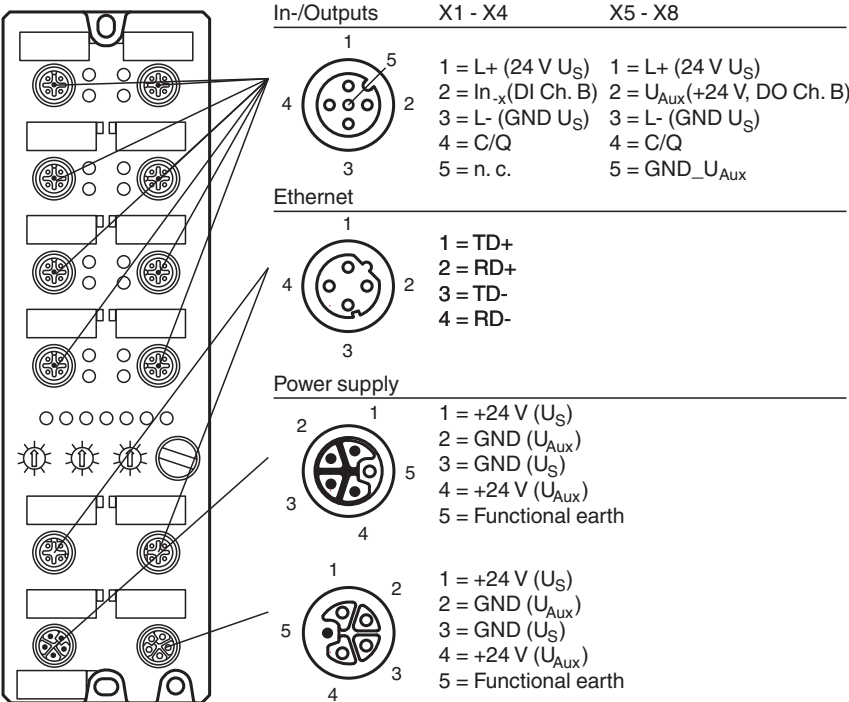
General specifications			
UL File Number		E223772	
Functional safety related parameters			
MTTF		582 a	
Indicators/operating means			
LED indication		see manual	
Rotary switch		Setting the fieldbus protocol	
Electrical specifications			
Rated operating voltage	U _e	18 ... 30 V	
Nominal voltage		24 V DC	
Current consumption		typ. 200 mA	
Current loading capacity		Max. 2 x 16 A per module (Loop-through current via L-coded power supply) Total current: max. 9 A per module	
Galvanic isolation		between U _S and U _L	
Interface 1			
Interface type		Industrial Ethernet	
Physical		M12, D-coded	
Protocol		PROFINET IO with media redundancy protocol (MRP) and S2 system redundancy. EtherNet/IP with Device Level Ring (DLR)	
Transfer rate		10/100 Mbps	
Inputs/Outputs			
Number/Type		4 x IO-Link Class A (X1 – X4) 4 x IO-Link Class B (X5 – X8) Configurable as: max. 8 IO-Link and 4 digital inputs and outputs max. 12 digital inputs and 4 digital outputs max. 12 digital outputs and 4 digital inputs short-circuit protected	
Sensor supply		max. 500 mA per port (X1 - X8) via L+ (pin 1)	
Output rated operating current	I _e	max. 500 mA per port (X1 - X8) Via C/Q (pin 4) In addition, a maximum of 2 A per port (X5 – X8) Via U _{Aux} (pin 2)	
Directive conformity			
Electromagnetic compatibility			
Directive 2014/30/EU		EN 61000-6-2:2005, EN 61000-6-4:2007+A1:2011	
Standard conformity			
Degree of protection		EN 60529:2000	
Fieldbus standard		Type 1 according to IEC 61131-2	
Emitted interference		EN 61000-6-4:2007+A1:2011	
Noise immunity		EN 61000-6-2:2005	
Shock resistance		EN 61131-2:2004	
Ambient conditions			
Ambient temperature		-20 ... 70 °C (-4 ... 158 °F)	
Storage temperature		-40 ... 70 °C (-40 ... 158 °F)	
Cold start temperature		-40 °C (-40 °F)	
Relative humidity		max. 95 %	
Altitude		0 ... 2000 m	
Shock and impact resistance		50 g, 11 ms, all axes	
Vibration resistance		15 g at 5 - 500 Hz	
Pollution degree		3	
Mechanical specifications			
Contact elements		PA	
Housing length		21 mm	
Housing width		59.6 mm	
Housing height		200 mm	
Degree of protection		IP65/IP67/IP69K	

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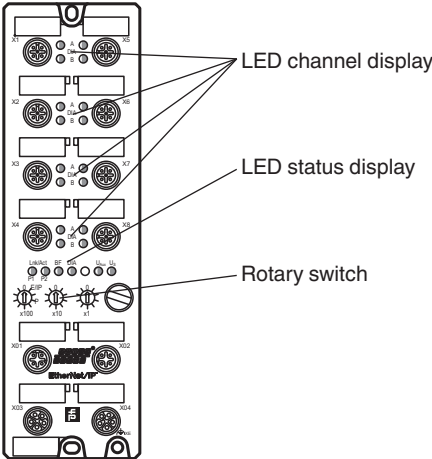
Technical Data

Connection	Power Supply M12, L-coded Fieldbus M12, D-coded Inputs/Outputs M12, A-coded
Material	
Contacts	CuSn, gold-plated CuNi, gold-plated
Housing	Diecast zinc
Seal	FKM
Mass	500 g
Tightening torque, fastening screws	1 Nm
Tightening torque, cable gland	0.6 Nm
Construction type	Field housing
Tightening torque of clamping screws	0.5 Nm

Connection



Assembly



Accessories

	V15L-G-2M-PUR-U-V15L-G	Cordset M12 socket straight to M12 plug straight L-coded, 5-pin, PUR cable grey, UL approved
	V15L-G-5M-PUR-U	Female cordset single-ended M12 straight L-coded, 5-pin, PUR cable grey, UL approved
	V15L-G-BK	Female connector M12 straight L-coded 5-pin, for cable diameter 8 - 13 mm, field-attachable
	V1SD-G-GN2M-PUR-E1S-V45-G	Ethernet bus cable M12 plug straight D-coded to RJ45 Ethernet-coded, 4-pin, PUR cable green, Cat5e, shielded, drag chain suitable
	V1SD-G-GN2M-PUR-E1S-V1D-G	Ethernet bus cable M12 plug straight to M12 plug straight D-coded, 4-pin, PUR cable green, Cat5e, shielded, UL approved, drag chain suitable
	V1SD-G-ABG-PG9	Male connector M12 straight D-coded 4-pin, for cable diameter 5 - 8 mm, shielded, field-attachable
	V1S-T-V1	Y-Splitter M12 plug 5-pin to 2x M12 socket 4-pin A-coded
	V1-G-BK1M-PUR-A-T-V1-G	Y connection cable M12 plug straight A-coded 4-pin to 2x M12 socket straight A-coded 4-pin, 2x PUR cable weld spatter resistant black, UL approved, drag chain suitable, torsion resistant
	V1S-G-PG9	Male connector M12 straight A-coded 4-pin, for cable diameter 6 - 8 mm, field-attachable
	VAZ-V1-B3L	Blind plug for M12 sockets
	MH V1-SCREWDRIVER	Torque screwdriver (0.6 Nm)
	MH V1-BIT M12	plug-in cap M12
	ICA-16DI-G60A-IO	I/O hub with IO-Link interface for 16 digital inputs
	ICA-10DI6DO-G60A-IO	I/O hub with IO-Link interface for 10 digital inputs and 6 digital outputs
	ICA-16DIO-G60AL-IO	I/O hub with IO-Link interface for 16 digital inputs/outputs
	ICA-8DIO-CB10-IO	I/O hub with IO-Link interface
	ICA-AI-I/U-IO-V1	IO-Link converter with analog input (current/voltage)
	ICA-AO-I/U-IO-V1	IO-Link converter with analog output (current/voltage)