IO-Link master (EIP/MOD)

ICE2-8IOL1-G65L-V1D

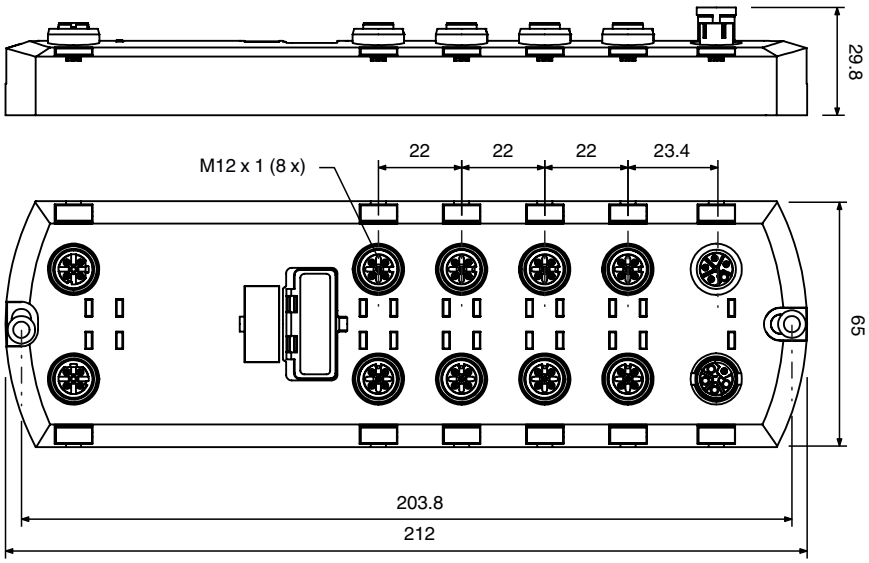
- Provides 4 Class A and 4 Class B IO-Link ports
- Web-based configuration of module and IO-Link devices
- Integrated IODD storage for more than 100 IODDs
- Downloadable module configuration
- M12 L-coded power connector
- EtherNet/IP, Modbus/TCP, OPC UA, and MQTT support

EtherNet/IP and Modbus IO-Link master with 4 x IO-Link Class A and 4 x IO-Link Class B ports

Function

The module is an EtherNet/IP fieldbus module with 4 type A IO-Link master ports and 4 type B IO-Link master ports according to IO-Link standard V1.1. The fieldbus module serves as an interface between the controller of an EtherNet/IP fieldbus system and IO-Link devices in the field level. The integrated web server and IODD interpreter enabling complete configuration of the fieldbus module and attached IO-Link devices without the need for special software tools. Information regarding the status of the module is also displayed and network parameters such as the IP address and subnet mask can be configured. The module is capable of storing all configuration enabling stand-alone usage without a higher level PLC. MutliLink simultaneously provides data access via different communication protocols like EtherNet/IP, Modbus/TCP, OPC UA and MQTT to multiple 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. Status information for each channel is displayed via LEDs as a diagnostic function.

Dimensions



Technical Data

General specifications	
UL File Number	E360395
Indicators/operating means	
LED indication	see manual

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Technical Data

Rotary switch		Setting the IP address
Electrical specifications		
Rated operating voltage	U_e	20 ... 30 V DC
General information		M12, L-coded
Nominal voltage		24 V DC
Current consumption		typ. 120 mA
Current loading capacity		Max. 2 x 16 A per module (Loop-through current via L-coded power supply) Total current: max. 6.5 A per module (Class A) Total current: max. 10.4 A per module (Class B)
Galvanic isolation		between US and UA
Interface 1		
Interface type		Industrial Ethernet
Physical		M12, D-coded
Protocol		EtherNet/IP + Modbus TCP + OPC UA + MQTT Modbus max PDI: 33 times / sec OPC UA max PDI update rate: 20 times / sec MQTT max PDI update rate: 10 times / sec
Transfer rate		10/100 Mbps
Inputs/Outputs		
Number/Type		4 x IO-Link Class B (X1 – X4) and 4 x IO-Link Class A (X5 – X8) Configurable as: max. 8 IO-Link and 4 digital inputs and outputs max. 12 digital inputs and digital outputs short-circuit protected
Sensor supply		Ports 1 - 8: max. 500 mA per port via L+ (pin 1)
Actuator supply		Port 1: max. 3.5A via 2L+ (pin 2) Ports 2-4: max. 2.3A via 2L+ (pin 2)
Output rated operating current	I_e	max. 200 mA Per port via C/Q (pin 4) max. 200 mA Per port via DI/DO (pin 2) on ports 5 - 8
Directive conformity		
Electromagnetic compatibility		
Directive 2014/30/EU		EN 61000-6-2 , EN 61000-6-4
RoHS		EN IEC 63000:2018
Standard conformity		
Degree of protection		EN 60529
Fieldbus standard		IEC 61131-2
Electrical safety		CSA C22.2 No. 61010-1-12 UL 61010-1, IEC 61010-2-201
Emitted interference		EN 61000-6-4, FCC Part 15 Subpart B, ICES-001, AS/NZS CISPR 11
Noise immunity		EN 61000-6-2 , EN 61131-2 , EN 61131-9
Shock resistance		EN 60068-2-27
Ambient conditions		
Ambient temperature		-40 ... 70 °C (-40 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Relative humidity		max. 95 %
Altitude		0 ... 2000 m
Shock and impact resistance		15g, 11ms, half-sine
Mechanical specifications		
Housing length		30 mm
Housing width		65 mm
Housing height		212 mm
Degree of protection		IP67
Connection		Power Supply M12, L-coded Fieldbus M12, D-coded Inputs/Outputs M12, A-coded
Material		
Housing		Molded Polyamide 66
Mass		454 g

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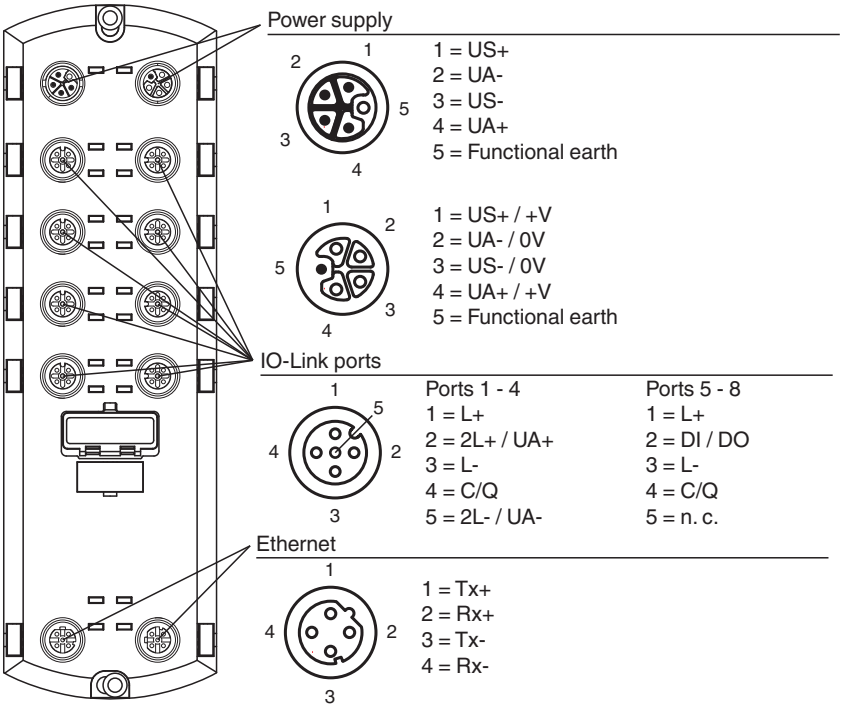
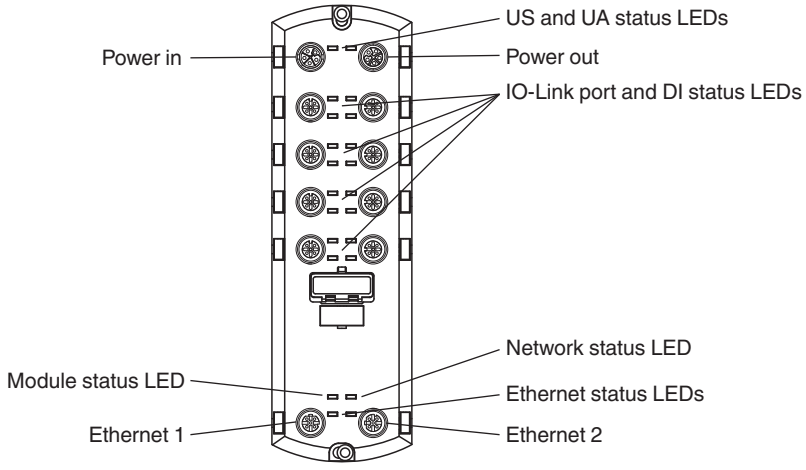
Tightening torque, fastening screws		8 Nm
Tightening torque, cable gland		0.6 Nm
Dimensions		65 mm 29.8 mm 212 mm
Mounting		Machine or panel

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

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Accessories

	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)

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