



Fieldbus module

ICE1-16DIO-G60L-C1-V1D

- Multiprotocol-compatible
- Decentralized control function
- M12 power connector
- Sturdy metallic housing
- Web-based configuration
- 16 digital inputs/outputs can be configured

Ethernet IO module with 16 configurable digital inputs/outputs and integrated logic



Function

The ICE1-16DIO-G60L-C1-V1D is a multiprotocol fieldbus module with 16 digital in- or outputs.

The G60L design in fully cast metal housing is resistant to mechanical damage and environmental influences. The G60L has protection class IP65/IP67.

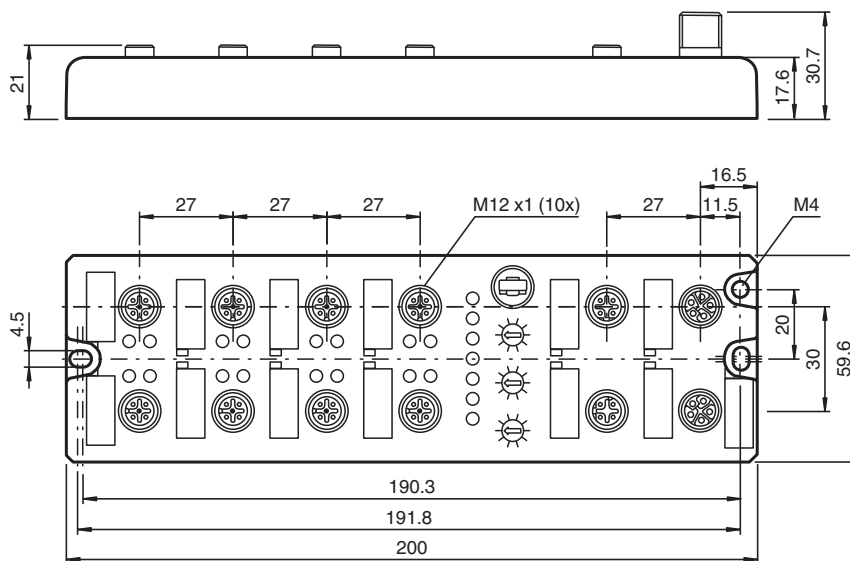
The fieldbus module serves as an interface between the controller of a fieldbus system and the field level. Thanks to its multiprotocol capability, the fieldbus module supports the Ethernet communication protocols PROFINET, EtherNet/IP, and EtherCAT.

An L-coded M12 connector plug used for supplying power enables a current rating of up to 2 x 16 A. The inputs 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. The diagnostics display status information for each channel via LEDs. 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.

The distributed logic function of the fieldbus module allows decentralized applications to be controlled autonomously.

Dimensions



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Technical Data

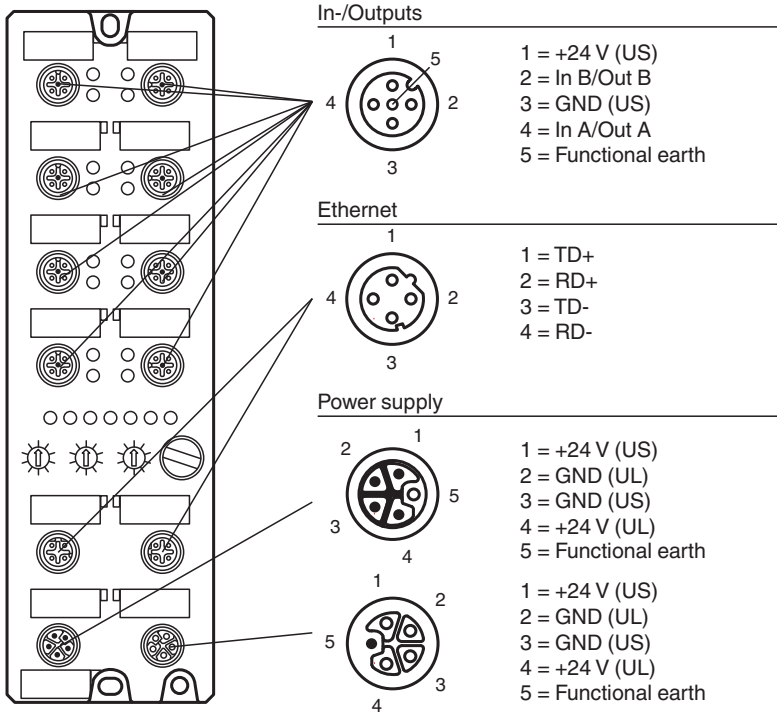
General specifications		
UL File Number		E223772
Indicators/operating means		
LED indication		see manual
Rotary switch		Setting the fieldbus protocol
Electrical specifications		
Rated operating voltage	U_e	18 ... 30 V
Nominal voltage		24 V DC
Current consumption		120 mA
Current loading capacity		Max. 2 x 16 A per module (Loop-through current via L-coded power supply) Total current: max. 9 A per module
Interface 1		
Interface type		Industrial Ethernet
Physical		M12, D-coded
Protocol		PROFINET IO with media redundancy protocol (MRP) EtherNet/IP with Device Level Ring (DLR) EtherCAT
Transfer rate		10/100 Mbps
Inputs/Outputs		
Number/Type		16 digital inputs/outputs, configurable Inputs: 2-, 3-, 4-wire PNP, DC, supply from U_S Outputs: 2-wire PNP, DC, supply from U_L No galvanic isolation between U_S and U_L short-circuit protected
Sensor supply		max. 500 mA Per port (X1 - X8) via U_S
Output rated operating current	I_e	max. 2 A per channel / 4 A Per port (X1 - X8) via U_L
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
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
Degree of protection		IP65/IP67/IP69K
Connection		Power Supply M12, L-coded Fieldbus M12, D-coded Inputs 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

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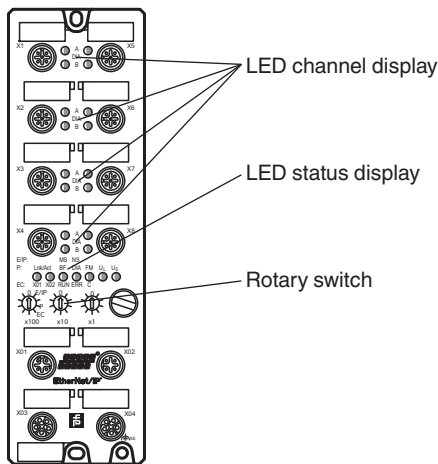
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Tightening torque, cable gland	0.6 Nm
Construction type	Field housing
Tightening torque of clamping screws	0.5 Nm

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

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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