



## Technical Data

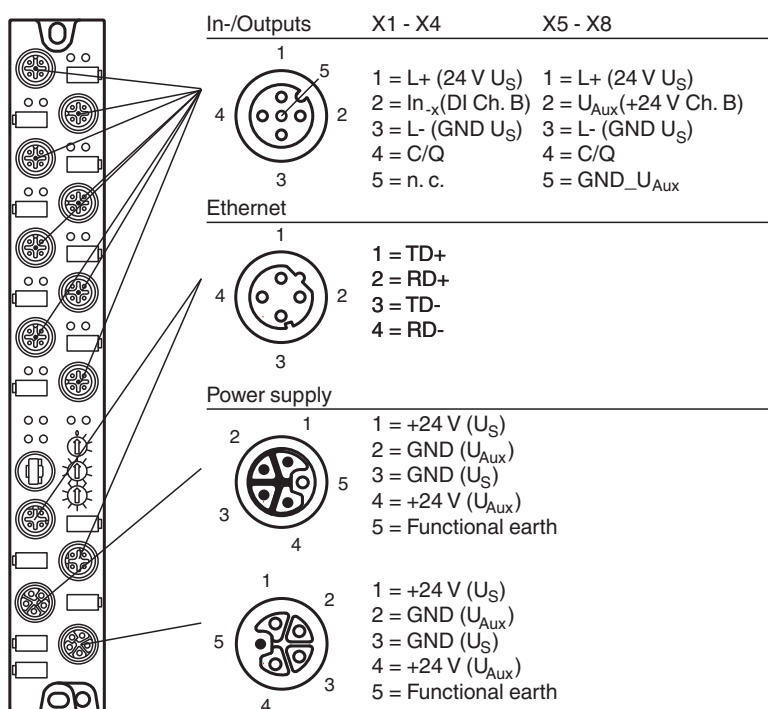
<b>General specifications</b>		
UL File Number		E223772
<b>Functional safety related parameters</b>		
MTTF		604 a
<b>Indicators/operating means</b>		
LED indication		see manual
Rotary switch		Setting the fieldbus protocol
<b>Electrical specifications</b>		
Rated operating voltage	$U_e$	18 ... 30 V
Nominal voltage		24 V DC
Current consumption		typ. 180 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 $U_L$
<b>Interface 1</b>		
Interface type		Industrial Ethernet
Physical		M12, D-coded
Protocol		PROFINET IO with media redundancy protocol (MRP) EtherNet/IP with Device Level Ring (DLR)
Transfer rate		10/100 Mbps
<b>Inputs/Outputs</b>		
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 max. 12 digital inputs max. 8 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)
<b>Directive conformity</b>		
Electromagnetic compatibility		
Directive 2014/30/EU		EN 61000-6-2:2005, EN 61000-6-4:2007+A1:2011
<b>Standard conformity</b>		
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
<b>Ambient conditions</b>		
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
<b>Mechanical specifications</b>		
Contact elements		PA
Housing length		33.4 mm
Housing width		30 mm
Housing height		225 mm
Degree of protection		IP65/IP67/IP69K

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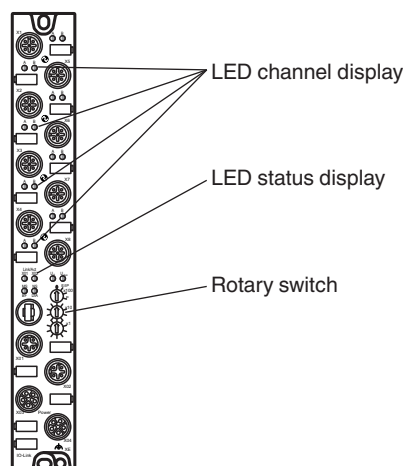
## Technical Data

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	480 g
Tightening torque, fastening screws	1 Nm
Tightening torque, cable gland	max. 0.5 Nm
Construction type	Field housing
Tightening torque of clamping screws	0.5 Nm

## Connection





















## Assembly



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## Accessories

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