lumbergautomation
A BELDEN BRAND

PROFINET – IO-Link Masters (30 mm, M12 Power), 4 Digital Inputs, 8 IO-Link Channels with M12 L-Coded Power Supply Connection

Product Description		
Type	**0980 ESL 109-121**	**0980 ESL 109-122**
	NEW! 	NEW! 
Description	LioN-P PROFINET device, 4 digital input channels, 8 IO-Link channels, M12 LAN connection, 4-poles, D-coded, M12 L-coded power supply, 5-poles, 30 mm housing	LioN-P PROFINET device, 4 digital input channels, 8 IO-Link channels, M8 I/O, 5-poles, B-coded, M12 LAN connection, 4-poles, D-coded, M12 L-coded power supply, 5-poles, 30 mm housing
Order No.	934878004	934857001
Technical Data		
Protection Degree	IP65, IP67, IP69K (only if mounted and locked in combination with Hirschmann/Lumberg connector)	
Ambient Temperature (Operation)	-20 °C to +70 °C	
Dimensions (W x H x D)	30 x 43.1 x 225 (mm)	30 x 43.1 x 204 (mm)
Weight	480 g	448 g
Housing Material	Metal, Zinc Die-cast	
Bus System		
Protocol	PROFINET IO Device	
Connection	M12 LAN connection, 4-poles, D-coded	
Transmission Rate	Fast Ethernet (100 Mbit/s), Full Duplex	
Rotary Address Switches	No	
Power Supply		
Nominal Voltage	24 V DC (SELV/PELV)	
Nominal Voltage Range	18 to 30 V DC	
Connection	M12, L-coded, 5-poles	
Current Carrying Capacity of Connector	16 A	
Current Consumption (typ.)	180 mA (+/-20% at 24 V DC)	
IO-Link Master Channels		
Number of Channels	8	
Connection	M12, 5-poles, A-coded	M8, 5-poles, B-coded
Number of A Ports (IOL)	4 (X1 to X4)	
Number of B Ports (IOL)	4 (X5 to X8)	
Nominal Voltage (IOL)	24 V DC via US (system power supply)	
Nominal Current C/Q (Pin 4)	500 mA	
Nominal Current L+/L- (Pin 1 and 3)	500 mA	
Nominal Current Uaux (Pin 2, B Ports)	max. 4 A per module	
Input Channels		
Number of Channels	max. 12, 4 x (Pin 2, fixed) + 8 x (Pin 4, configurable)	
Connection	M12, 5-poles, A-coded	M8, 5-poles, B-coded
Channel Type	Type 1 acc. to IEC 61131-2	
Nominal Voltage	24 V DC via US (system power supply)	
Sensor Current Supply	500 mA per Port via L+/L-	
Sensor Type	PNP	
Output Channels		
Number of Channels	max. 8 (Pin 4, configurable)	
Connection	M12, 5-poles, A-coded	M8, 5-poles, B-coded
Channel Type	p-switching	
Nominal Voltage	24 V DC via Uaux (actuator power supply)	
Output Current per Channel	max. 500 mA (Pin 4)	
Output Current per Module	max. 9 A	
Protective Circuit	Electronicaly: Overload protection, short-circuit protection	
Galvanically Isolated	No	

Continued Next Page

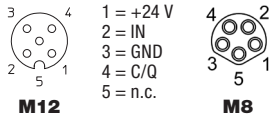
PROFINET – IO-Link Masters (30 mm, M12 Power), 4 Digital Inputs, 8 IO-Link Channels with M12 L-Coded Power Supply Connection

Diagnostic Indication | 0980 ESL 109-121_| 0980 ESL 109-122

LED	Indicator	Condition
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	White	Channel status
1...8 DIA B	Red	Periphery error
1...8 I/O-Link	Green Green blinking Off	No I/O-Link device connected I/O-Link communication available Port is not configured as I/O-Link
P1 Lnk/Act	Green Green blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
P2 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
BF	Red Off	Bus error, no data exchange with I/O controller via PROFINET No error message
DIA	Red Red blinking Off	Common indicator for periphery errors Firmware update No error message
U_S	Green	Voltage 19 V <= U_S <= 30 V
U_{AUX}	Green Red	Voltage 19 V <= U_L <= 30 V U_L Voltage < 19 V or U_L > 30 V

Pin Assignment

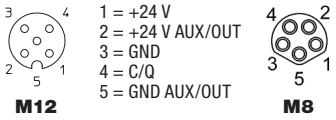
IO-Link Port Type A (X01...X04), M12 A-coded / M8 B-coded



M12 / M8

1 = +24 V
2 = IN
3 = GND
4 = C/Q
5 = n.c.

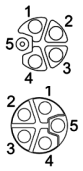
IO-Link Port Type B (X05...X08), M12 A-coded / M8 B-coded



M12 / M8

1 = +24 V
2 = +24 V AUX/OUT
3 = GND
4 = C/Q
5 = GND AUX/OUT

M12 Power Supply, L-coded



1 = +24 V
2 = GND AUX
3 = GND
4 = +24 V AUX
5 = FE

M12 PROFINET/EtherNet/IP, D-coded

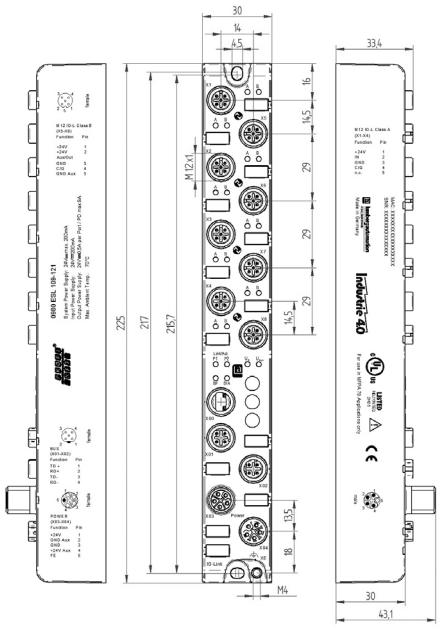
1 = TD+
2 = RD+
3 = TD-
4 = RD-

Continued Next Page

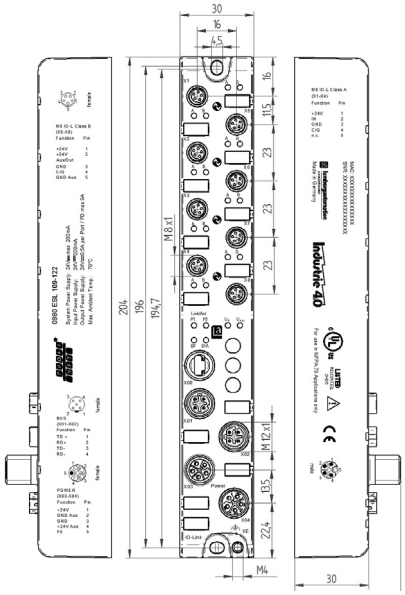
PROFINET – IO-Link Masters (30 mm, M12 Power), 4 Digital Inputs, 8 IO-Link Channels with M12 L-Coded Power Supply Connection

Technical Drawing

0980 ESL 109-121



0980 ESL 109-122



The application of these products in harsh environments should always be checked before use.
Technical modifications reserved.