



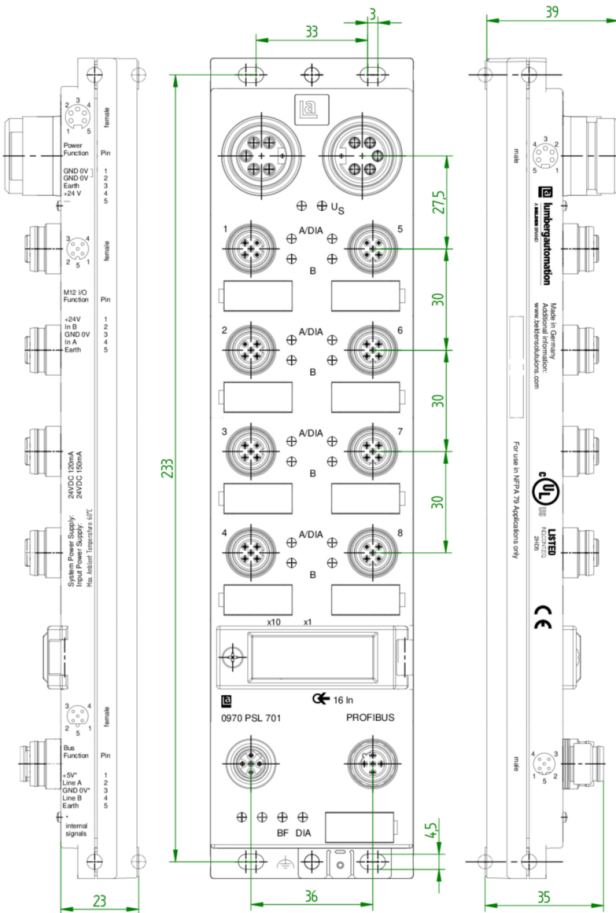
**Product:** [0970 PSL 701](#)

LiON-M, PROFIBUS I/O Device, 16DI (8x M12), 7/8" Power Supply, Plastic, 60 mm

### Product Description

LiON-M M12-60, Plastic, PROFIBUS, M12 Bus Connector, B-coded, 16 DI, 7/8" Power Supply, 5-poles

### Technical Drawing



### Technical Specifications

#### Product Description

Brand:	Belden
Product Family:	I/O Systems: Active - Standalone
Product Sub Family:	LiON-M
Item Description:	0970 PSL 701
Part Number:	75848
Device Type:	I/O Module

Protocol:	PROFIBUS
I/O Function:	16DI
Bus Connection:	M12, 5-poles, B-coded
Power Connection (System Supply):	7/8" Power, 5-poles
I/O Connection:	M12, 5-poles, A-coded
I/O Type:	Digital Input

## General Data

Housing Material:	PBT + ASA
Housing Color:	Black
Protection Degree / IP Rating**:	IP67
Potted:	No
Dimensions (W x H x D):	60 mm x 40 mm x 243 mm
Weight:	390 g
Ambient Temperature (Operation)*:	-10 °C to 60 °C
Vibration Resistance:	10 g / 5 -500 Hz
Shock Resistance:	50 g / 11ms
Contact Base Material:	M12, B-coded, CuSn, Gold-plated   7/8" CuZn, Gold-plated
Contact Bearer Material:	PA / TPU
O-Ring Material:	FKM
Mounting:	2 hole screw mounting. Use standard M4 x 25 / 30 screws with toothed lock washer (as per DIN 125) and self-locking nuts.
Fastening Torque (Fixing Screw):	M4: 1 Nm
Fastening Torque (Ground Connection (FE)):	M4: 1 Nm
Fastening Torque (Bus Connection):	M12: 0.5 Nm
Fastening Torque (Power Connection):	7/8": 1.5 Nm
Fastening Torque (I/O Connection):	M12: 0.5 Nm
Included in Delivery:	Attachable Labels: 15x, Sealing Caps: 4x M12

## Profibus

Connection:	M12, 5-poles, B-coded
Number of Connections:	2
Transmission Rate:	9.6 kbps ... 12 Mbps
Transmission Rate Adjustment:	Automatically with start of the communication
Addressing via Rotary Address Switches:	1 ...99 dec
Addressing via PROFIBUS:	1 ...125 dec
ID Number:	09CA hex

## Power Supply

Connection Module Supply Voltage:	7/8" Power, 5-poles
Number of Connections:	2
Current Carrying Capacity of Connector:	max. 9 A
Module Supply Voltage (Nominal):	24 V DC (SELV/PELV)
Module Supply Voltage (Range):	19 V DC to 30 V DC
Current Consumption (typ.):	70 mA (at 24 V DC)
Reverse Polarity Protection:	Yes
Status Indicator (System Supply):	LED green
Diagnostic Indicator:	No
Connection Sensor Supply Voltage:	via Module Supply Connection
Current Carrying Capacity of Connector:	max. 9 A
Sensor Supply Voltage (Nominal):	24 V DC (SELV/PELV)
Sensor Supply Voltage (Range):	19 V DC to 30 V DC
Reverse Polarity Protection:	Yes
Status Indicator (Sensor Supply):	LED green
Diagnostic Indicator:	No

## Digital Input Channels

Number of Digital Input Channels:	max. 16, fixed
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Connection:	M12, 5-poles, A-coded
Number of Ports:	8x, X1 to X8
Channel Type:	Type 3 acc. to IEC 61131-2
Input Wiring:	2-, 3-, 4-wire
Nominal Voltage:	24 V DC via US (module power supply)
Nominal Current:	typ. 5 mA
Sensor Current Supply:	max. 200 mA per port (at 30°C)
Sensor Type:	PNP
Input Voltage Range "0" signal:	-3 V DC ... +5 V DC
Input Voltage Range "1" signal:	11 V DC ... 30 V DC
Input Filter Time:	1 ms, fixed
Protective Circuit:	Electronically: Overload protection, short-circuit protection
Status Indicator (Inputs):	LED yellow per channel
Diagnostic Indicator:	LED red per port

## Electrical Isolation

US (System Supply Voltage) / FE:	500 V DC
Bus connection / FE:	500 V DC

## EMC Conformance

EMC Directive:	2014/30/EU
EN 61000-4-2 Electrostatic Discharge (ESD):	Criterion B; 4 kV contact discharge, 8 kV air discharge
EN 61000-4-3 Electromagnetic Field:	Criterion A; Field intensity: 10 V/m
EN 61000-4-4 Fast Transients (Burst):	Criterion B, 2 kV
EN 61000-4-5 Surge Voltage:	Criterion B; DC supply lines: $\pm 0.5$ kV/ $\pm 0.5$ kV (symmetrical/asymmetrical); For I/O ports with cables $\leq 30$ m
EN 61000-4-6 Conducted immunity:	Criterion A; Test voltage 10 V
EN 55022 Radio Interference Properties:	Class A

## Safety & Environmental Compliance

CE:	Yes
RoHS Compliant:	Yes

## Approvals

UL:	cULus Listed, UL 508
UL-File:	E230848

## Notes

Protection Degree / IP Rating Note:	** only if mounted and locked in combination with Hirschmann / Lumberg Automation connector.
System Power Supply Connection Note:	*do not connect / disconnect under voltage!
Update and Revision:	Revision Number: 0.38 Revision Date: 11-09-2022

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