



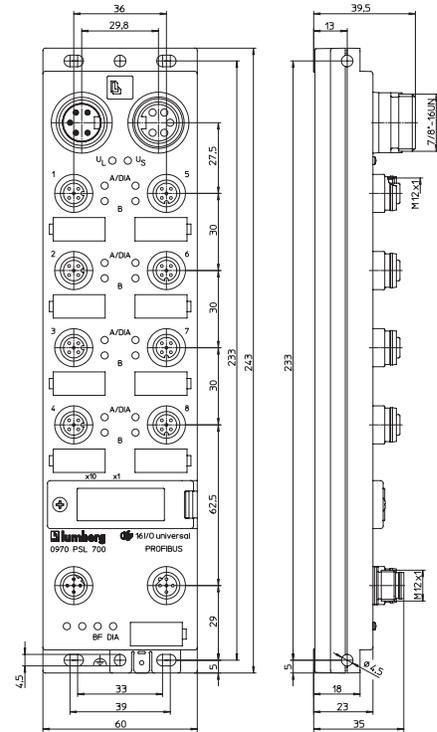
Profibus I/O Modules with 16-Digital Inputs and 16-Digital Outputs

0970 PSL 700



16 IN / 16 OUT (universal)

Profibus-DP device with 16 digital I/O channels, channels can be used universally as inputs or outputs, combined 12 socket, rotary switches for addressing, M12 bus connection, 7/8" power supply.



Bit Assignment

Bit	7	6	5	4	3	2	1	0
M12 Input								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A
M12 Output								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A

Diagnostic Indication

LED	Indication	Condition
1...8 A/B	yellow	channel status
1...8 A/DIA	red	periphery fault
U _s	green	sensor/system power supply
BF	red	bus error
DIA	red	common indication for periphery faults

Pin Assignment

Bus connection M12	Power supply 7/8"	Input M12	
<p>1 = +5 V¹ 2 = Line A - GN 3 = GND (0 V)¹ 4 = Line B - RD 5 = earth housing = earth</p>	<p>1 = GND (0 V)² 2 = GND (0 V)³ 3 = Earth 4 = +24 V³ 5 = +24 V²</p>	<p>1 = +24 V 2 = IN/OUT B 3 = GND (0 V) 4 = IN/OUT A 5 = Earth</p>	<p>1 = internal signals: galvanically separated to sensors 2 = actuators 3 = system sensors</p>



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Technical Data

Environmental

Degree of protection IP 67
 Operating temperature range -10°C (+14°F) to +60°C (+140°F)

Mechanical

Weight 380 g
 Housing material PBT

Bus system

Profibus
 ID number 09CA hex
 GSD file Lum_09CA.GSD
 Transmission rate max. 12 MBaud
 Address range 1–125 dec
 Rotary address switches 1–99 dec
 Default address 99 dec

System/Sensors power supply

Rated voltage 24 V DC
 Voltage range 19–30 V DC
 Power consumption 120 mA
 Reverse polarity protection yes

Input power supply

Us
 Voltage range min. (U_{System} - 1.5 V)
 Sensor current 100 mA (at Tamb 30°C) per socket
 Short circuit-proof yes
 Indication LED green

Inputs

Type 3 acc. to IEC 61131-2
 Rated input voltage 24 V DC
 Channel type N.O. p-switching
 Number of digital channels max. 16
 Channel status indicator LED yellow per channel
 Diagnostic indication LED red per channel

Output power supply

Ul
 Rated voltage 24 V DC
 Voltage range 19–30 V DC
 Reverse polarity protection yes/antiparallel diode
 Indication LED green
 Optional disengageable actuator low-voltage detection over integrated DIP-switch.

Outputs

Rated output current 1.6 A per channel
 Short circuit-proof yes
 Max. output current 9 A (12 A*) per module

*Test proven and approved under the following conditions:

- looped through System/Sensorpower supply max. 2,5 A
- Power supply cable STL 204 (5 x 1.00 mm²)
- Operating temperature range max. 40°C

Overload-proof yes
 Number of digital channels max. 16
 Channel type N.O. p-switching
 Channel status indicator LED yellow per channel
 Diagnostic indication LED red per channel/socket

Diagnostic

Module diagnostic and single channel diagnostic according to Profibus specification (please see operating instructions under www.beldensolutions.com/downloads)

Included in delivery/accessories

Dust covers M12 2 pieces
 Attachable labels 10 pieces

Part Number

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The application of these products in harsh environments should always be checked before use. Specifications subject to alteration.