



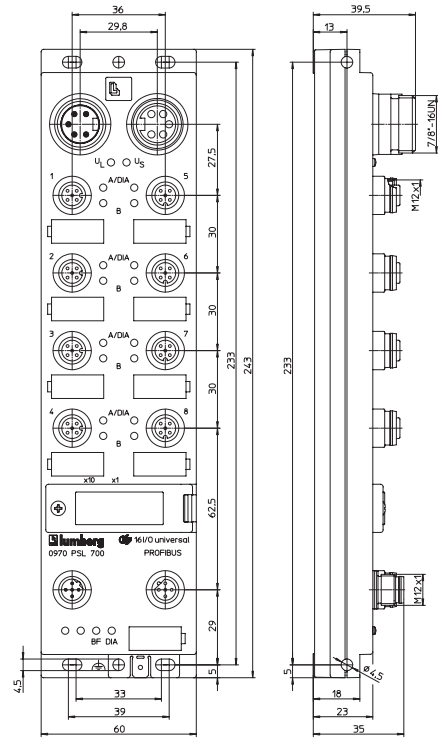
## Profibus I/O Modules with 16-Digital Inputs and 16-Digital Outputs

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
<b>M12 Input</b>								
<b>Byte 0</b>	4B	4A	3B	3A	2B	2A	1B	1A
<b>Byte 1</b>	8B	8A	7B	7A	6B	6A	5B	5A
<b>M12 Output</b>								
<b>Byte 0</b>	4B	4A	3B	3A	2B	2A	1B	1A
<b>Byte 1</b>	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
Us	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 V<sup>1</sup>                  2 = Line A - GN                  3 = GND (0 V)<sup>1</sup>                  4 = Line B - RD                  5 = earth                  housing = earth</p>	<p>1 = GND (0 V)<sup>2</sup>                  2 = GND (0 V)<sup>3</sup>                  3 = Earth                  4 = +24 V<sup>3</sup>                  5 = +24 V<sup>2</sup></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>



# Be Certain with Belden

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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<sub>System</sub> - 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 mm<sup>2</sup>)
- 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](http://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.