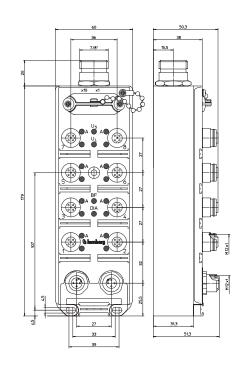## PROFIBUS PROCESS FIELD BUS

Profibus I/O Modules with 16-Digital Inputs

0970 PSL 111

16 IN

Profibus–DP device with 16 digital inputs to connect standard sensors, combined M12 socket, rotary switches for addressing, M12 bus connection, M23 power supply.
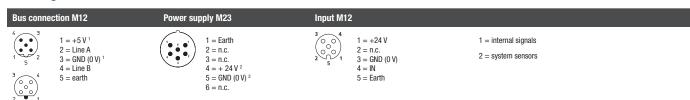

Bit Assignment

Bit	7	6	5	4	3	2	1	0
M12 Input								
Byte 0	8A	7A	6A	5A	4A	3A	2A	1A
Byte 1	8B	7B	6B	5B	4B	3B	2B	1B
Diagnostic								
DIA-Byte	-	-	-	OVL	-	-	-	-

OVL: Overlaod status

Diagnostic Indication

LED	Indication	Condition
1...8 A/B	yellow	channel status
U_S	green	sensor/system power supply
U_L	green	module electronic supply active
BF	red	bus error
DIA	red	module diagnostics (sensor short-circuit / sensor overload)

Pin Assignment

Bus connection M12	Power supply M23	Input M12	
1 = +5 V [1]	1 = Earth	1 = +24 V	1 = internal signals
2 = Line A	2 = n.c.	2 = n.c.	2 = system sensors
3 = GND (0 V) [1]	3 = n.c.	3 = GND (0 V)	
4 = Line B	4 = + 24 V [2]	4 = IN	
5 = earth	5 = GND (0 V) [2]	5 = Earth	
	6 = n.c.		

Profibus I/O Modules with 16-Digital Inputs
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Technical Data

Environmental

Degree of protection	IP 67
Operating temperature range	-0°C (+32°F) to +60°C (+140°F)

Mechanical

Weight	535 g
Housing material	PUR

Bus system — **Profibus**

ID number	044E hex
GSD file	Lum_044E.gsd
Transmission rate	max. 12 MBaud
Address range	1–126 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	90 mA
Reverse polarity protection	yes

Electronics power supply — U_L

Rated voltage	24 V DC
Voltage range	19–30 V DC
Power consumption	typ. 60 mA
Reverse polarity protection	yes
Indication	LED green

Input power supply — U_S

Voltage range	min. (U_L - 1.5 V)
Total current of all sensors	max. 800 mA
Short circuit-proof	yes
Indication	LED green

Inputs — **Type 3 acc. to IEC 61131-2$_L$**

Rated input voltage	24 V DC
Signal state "1"	11–30 V
Signal state "0"	-3–5 V
Input current at 24 V	typ. 6 mA
Channel type N.O.	p-switching
Number of digital channels	16
Channel status indicator	LED yellow per channel

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
0970 PSL 111

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

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