

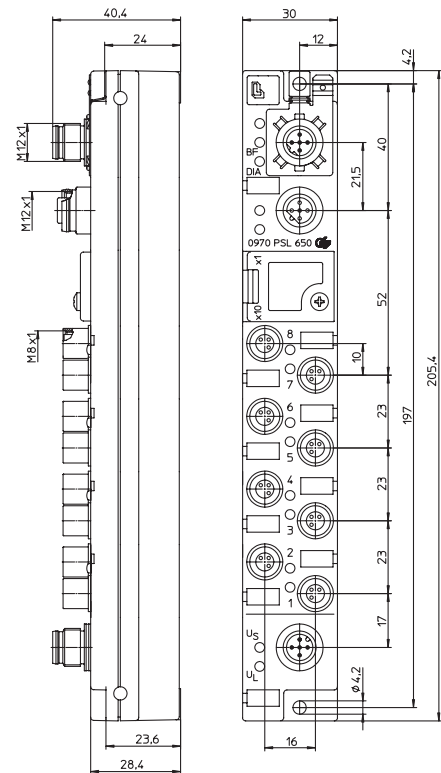


## 0970 PSL 650



### 8 IN / 8 OUT (universal)

Profibus-DP device with 8 digital I/O channels, channels can be used universally as inputs or outputs, M8 socket, 3 poles, rotary switches for addressing, M12 bus connection, M12 power supply.



### Bit Assignment

| Bit              | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
|------------------|---|---|---|---|---|---|---|---|
| <b>M8 Input</b>  |   |   |   |   |   |   |   |   |
| Byte 0           | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| <b>M8 Output</b> |   |   |   |   |   |   |   |   |
| Byte 0           | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

### Diagnostic Indication

| LED   | Indication | Condition                              |
|-------|------------|--|
| 1...8 | yellow     | channel status                         |
| 1...8 | red        | periphery fault                        |
| Us    | green      | sensor/system power supply             |
| UL    | green      | actuator power supply                  |
| BF    | red        | bus error                              |
| DIA   | red        | common indication for periphery faults |

### Pin Assignment

| Bus connection M12  | Power supply M12   | Input M8  |   |
|---|--|---|---|
| <p>1 = +5 V<sup>1</sup><br/>2 = Line A<br/>3 = GND (0 V)<br/>4 = Line B<br/>5 = earth<br/>housing = earth</p> | <p>1 = -24 V<sup>2</sup><br/>2 = +24 V<sup>3</sup><br/>3 = GND (0 V)<sup>2</sup><br/>4 = GND (0 V)<sup>3</sup><br/>5 = Earth</p> | <p>1 = +24 V<sup>3</sup><br/>3 = GND (0 V)<br/>4 = In</p> | <p>1 = internal signals: galvanically separated to sensors<br/>2 = actuators<br/>3 = system sensors</p> |



# Be Certain with Belden

## Profibus I/O Modules with 8-Digital Inputs and 8-Digital Outputs

0970 PSL 650

### Technical Data

#### Environmental

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

#### Mechanical

|                  |       |
|------------------|-------|
| Weight           | 200 g |
| Housing material | PBT   |

#### Bus system

|                         |               |
|-------------------------|---------------|
| ID number               | 09C9 hex      |
| GSD file                | Lum_09C9.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           | 90 mA      |
| Reverse polarity protection | yes        |

#### Input power supply

|                     |                                    |
|---------------------|------------------------------------|
| 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

|                            |                        |
|----------------------------|------------------------|
| Rated input voltage        | 24 V DC                |
| Channel type N.O.          | p-switching            |
| Number of digital channels | max. 8                 |
| Channel status indicator   | LED yellow per channel |
| Diagnostic indication      | LED red per channel    |

#### Output power supply

|                             |                        |
|-----------------------------|------------------------|
| Rated voltage               | 24 V DC                |
| Voltage range               | 19–30 V DC             |
| Reverse polarity protection | yes/antiparallel diode |
| Indication                  | LED green              |

#### Outputs

|                            |                        |
|----------------------------|------------------------|
| Rated output current       | 0.5 A per channel      |
| Short circuit-proof        | yes                    |
| Max. output current        | 4 A per module         |
| Overload-proof             | yes                    |
| Number of digital channels | max. 8                 |
| Channel type N.O.          | p-switching            |
| Channel status indicator   | LED yellow per channel |
| Diagnostic indication      | LED red per channel    |

#### 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 M8    | 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.