



Measuring automation light grids Profibus , MLG, MLG PROFIBUS

MLG1-0440P811



Model Name > [MLG1-0440P811](#)
Part No. > [1040414](#)



At a glance

- Integrated PROFIBUS interface
- Resolutions of 10 / 20 / 30 / 50 mm and customer-specific resolutions
- Working range up to 8.5 m
- Detection heights of over 3 m and up to 240 beams possible
- Short response time
- External teach-in for optimal sensitivity settings

Your benefits

- Integrated PROFIBUS User Organization (PNO) number and GSD file for easy connection to a PLC
- Low cabling requirement reduces installation costs
- Easy-to-see light grid status information via the bus system helps avoid interrupting operation
- Different beam separation options, detection heights and output configurations ensure a reliable solution



Features

| | |
|---|------------------------|
| Technology: | Sender/receiver |
| Task: | Measurement light grid |
| Minimum detectable object (MDO) ¹⁾ : | Parallel beam, 15 mm |
| Beam separation: | 10 mm |
| Number of beams: | 45 |
| Detection height: | 440 mm |
| Configuration: | GSD data file |

¹⁾ MDO min. detectable object

Performance

| | |
|-------------------------------|-----------------------|
| Maximum range ¹⁾ : | 7 m |
| Minimum range: | Parallel beam: ≥0 mm |
| Response time ²⁾ : | Parallel beam 7.75 ms |
| Working range: | 5 m |

¹⁾ No reserve for environmental issue and deterioration of the diode ²⁾ With resistive load

Interfaces

| | |
|------------------|---------------------------|
| Data interface: | Profibus |
| Output type: | 1 x PNP |
| Inputs: | 1 x PNP |
| Connection type: | Male connector M12, 8-pin |
| IO-Link: | - |

Mechanics/electronics

| | |
|--|---|
| Wave length: | Infrared light 880 nm |
| Supply voltage V_s ¹⁾ : | DC 18 V ... 30 V |
| Power consumption sender ²⁾ : | 230 mA |
| Power consumption receiver ³⁾ : | 235 mA |
| Ripple: | < 5 Vpp |
| Output current $I_{max.}$: | 100 mA |
| Output load capacitive: | 100 nF |
| Output load inductive: | 1 H |
| Initialization time: | 1 s |
| Dimensions (W x H x D): | 34 mm x 514 mm x 29 mm |
| Housing material: | Aluminum |
| Indication: | 7-segment display |
| Enclosure rating: | IP 65 |
| Circuit protection: | Output Q short-circuit protected, Interference suppression, VS connections reverse-polarity protected |
| Weight: | 1.512 kg |
| Front screen: | PMMA |
| Synchronization: | Cable |

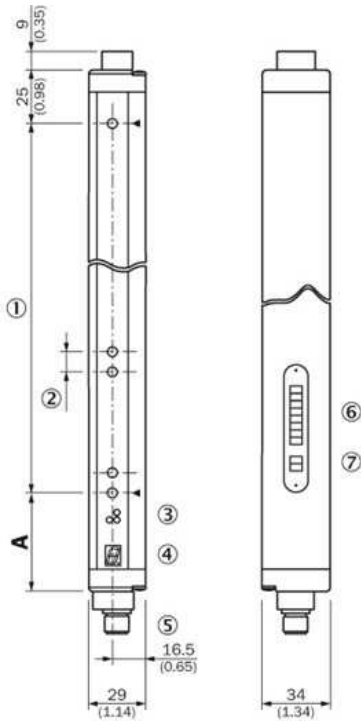
1) Without load 2) 3) Without load with 24 V

Ambient data

| | |
|--------------------------|---|
| Protection class: | III |
| EMC: | EN 60947-5-2 |
| Ambient temperature: | Operation: -25 ... +55 °C, Storage: -40 ... +70 °C |
| Vibration resistance: | 5 g, 10 Hz ... 55 Hz (IEC 68-2-6) |
| Shock load: | 10 g/IEC 68-2-29/16 ms |
| Ambient light immunity:: | Direct: $\geq 12,500$ lx, Indirect: $\geq 50,000$ lx ^{1) 2)} |

1) 2) Sunlight

Dimensional drawing



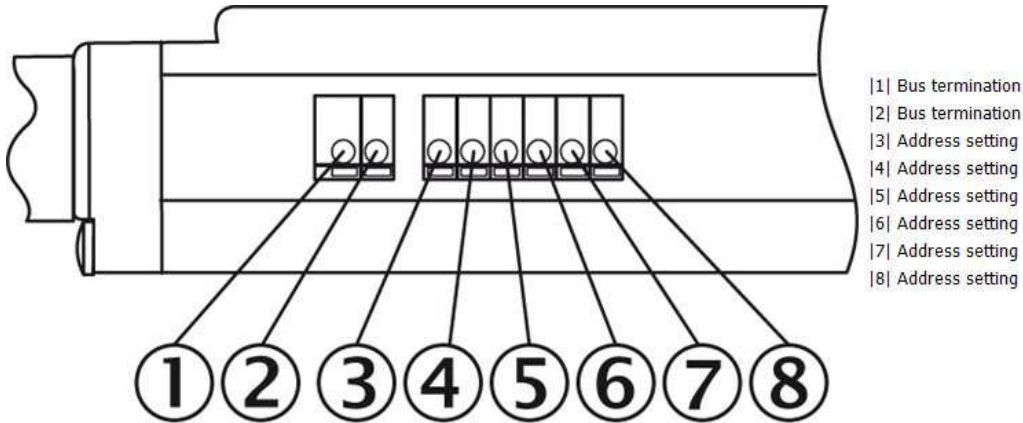
A
Distance: MLG edge - first beam

| | |
|------------------------------|---|
| Beam separation 10 mm | 49 (1.93) |
| Beam separation 20 mm | 49 (1.93) ¹⁾ / 59 (2.32) ²⁾ |
| Beam separation 30 mm | 69 (2.72) |
| Beam separation 50 mm | 89 (3.50) |

¹⁾ With even number of beams.
²⁾ With odd number of beams.

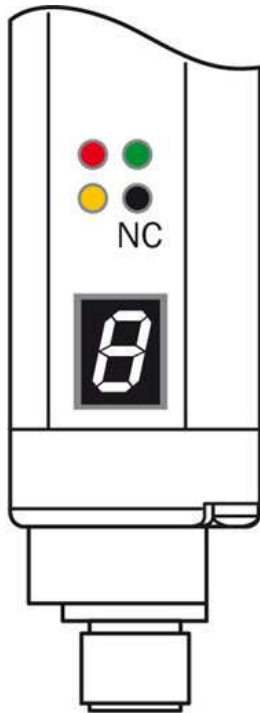
- |1| Detection height (see optical performance)
- |2| Beam separation (10, 20, 30, 50 mm)
- |3| Status indicator: LEDs green, yellow, red
- |4| Indicator panel, 7-segment display
- |5| M12 plug, 8-pin/ M12 plug 5-pin
- |6| Address setting
- |7| Bus termination

Adjustments DIP switches



- |1| Bus termination
- |2| Bus termination
- |3| Address setting
- |4| Address setting
- |5| Address setting
- |6| Address setting
- |7| Address setting
- |8| Address setting

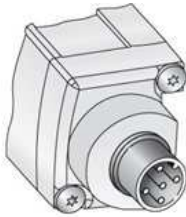
Adjustments receiver



- |1| Supply voltage
- |2| Device error
- |3| No object in the light path
- |4| Pollution indication
- |5| Blocked Beams Hold (BBH)
- |6| Activated teach-in procedure
- |7| ParamMode is active
- |8| standby
- |9| Error: E1 = sync. error; E2 = less receiver signal; E9 = defect

- ◐ blinks with 3 Hz
- on
- out
- ◐ on or out

Connection type and diagram



Sender



Receiver



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E-Mail sales@sick.com.au

Belgium/Luxembourg

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