



Measuring automation light grids Profibus , MLG, MLG PROFIBUS

MLG1-2090P811



Model Name > [MLG1-2090P811](#)
Part No. > [1029629](#)



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: | 210 |
| Detection height: | 2,090 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 32.5 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⁾ : | 560 mA |
| Power consumption receiver ³⁾ : | 730 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 2,164 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: | 5.307 kg |
| Front screen: | PMMA |
| Synchronization: | Cable |

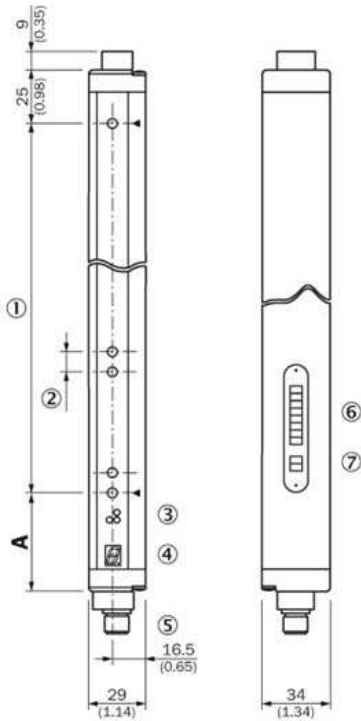
1) Without load 2) 3) Without load with 24 V

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

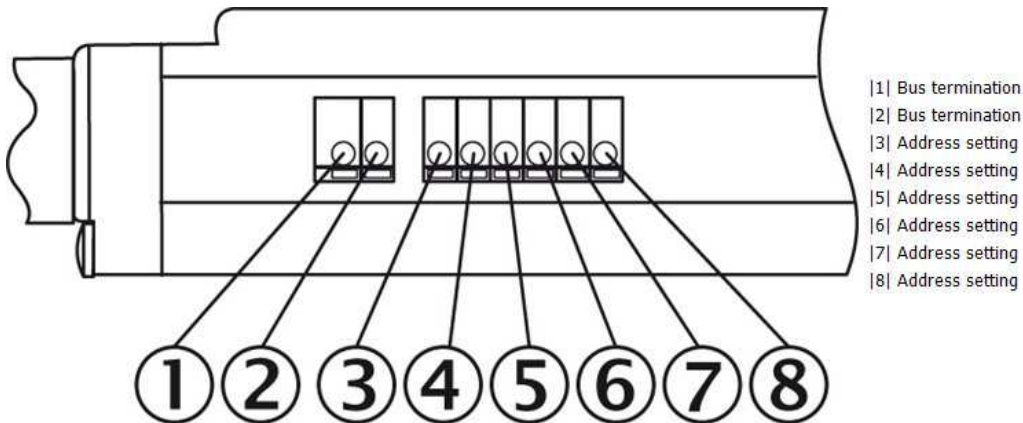


| | A |
|------------------------------|---|
| | Distance: MLG edge - first beam |
| Beam separation 10 mm | 49 (1.93) |
| Beam separation 20 mm | 49 (1.93) ¹⁾ / 59 (2.32) ²⁾ |
| Beam separation 30 mm | 69 (2.72) |
| Beam separation 50 mm | 89 (3.50) |

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

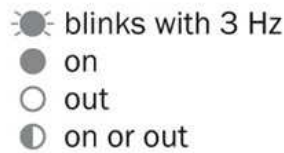
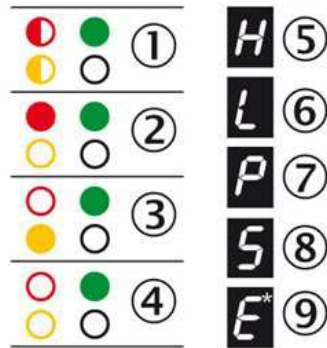
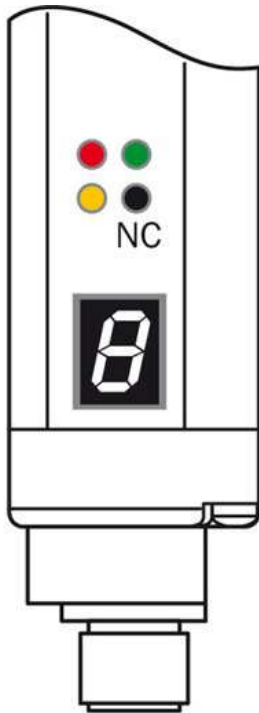
- |1| Detection height (see optical performance)
- |2| Beam separation (10, 20, 30, 50 mm)
- |3| Status indicator: LEDs green, yellow, red
- |4| Indicator panel, 7-segment display
- |5| M12 plug, 8-pin/ M12 plug 5-pin
- |6| Address setting
- |7| Bus termination

Adjustments DIP switches



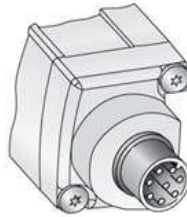
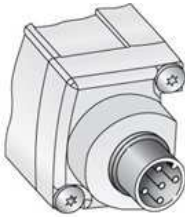
- |1| Bus termination
- |2| Bus termination
- |3| Address setting
- |4| Address setting
- |5| Address setting
- |6| Address setting
- |7| Address setting
- |8| Address setting

Adjustments receiver

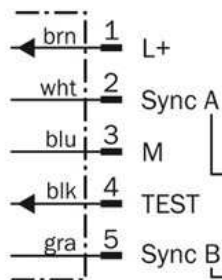


- |1| Supply voltage
- |2| Device error
- |3| No object in the light path
- |4| Pollution indication
- |5| Blocked Beams Hold (BBH)
- |6| Activated teach-in procedure
- |7| ParamMode is active
- |8| standby
- |9| Error: E1 = sync. error; E2 = less receiver signal; E9 = defect

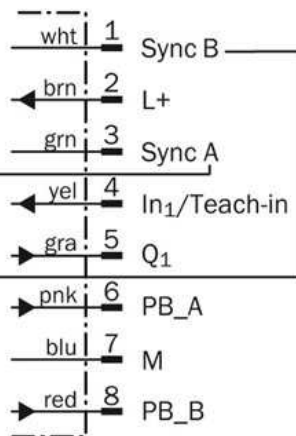
Connection type and diagram



Sender



Receiver



Australia

Phone +61 3 9457 0600
1800 33 48 02 – tollfree
E-Mail sales@sick.com.au

Belgium/Luxembourg

Phone +32 (0)2 466 55 66
E-Mail info@sick.be

Brasil

Phone +55 11 3215-4900
E-Mail marketing@sick.com.br

Canada

Phone +1 905 771 14 44
E-Mail information@sick.com

Česká republika

Phone +420 2 57 91 18 50
E-Mail sick@sick.cz

China

Phone +86 4000 121 000
E-Mail info.china@sick.net.cn
Phone +852-2153 6300
E-Mail ghk@sick.com.hk

Danmark

Phone +45 45 82 64 00
E-Mail sick@sick.dk

Deutschland

Phone +49 211 5301-301
E-Mail info@sick.de

España

Phone +34 93 480 31 00
E-Mail info@sick.es

France

Phone +33 1 64 62 35 00
E-Mail info@sick.fr

Great Britain

Phone +44 (0)1727 831121
E-Mail info@sick.co.uk

India

Phone +91-22-4033 8333
E-Mail info@sick-india.com

Israel

Phone +972-4-6881000
E-Mail info@sick-sensors.com

Italia

Phone +39 02 27 43 41
E-Mail info@sick.it

Japan

Phone +81 (0)3 5309 2112
E-Mail support@sick.jp

Magyarország

Phone +36 1 371 2680
E-Mail office@sick.hu

Nederland

Phone +31 (0)30 229 25 44
E-Mail info@sick.nl

Norge

Phone +47 67 81 50 00
E-Mail sick@sick.no

Österreich

Phone +43 (0)22 36 62 28 8-0
E-Mail office@sick.at

Polska

Phone +48 22 837 40 50
E-Mail info@sick.pl

România

Phone +40 356 171 120
E-Mail office@sick.ro

Russia

Phone +7-495-775-05-30
E-Mail info@sick.ru

Schweiz

Phone +41 41 619 29 39
E-Mail contact@sick.ch

Singapore

Phone +65 6744 3732
E-Mail sales.gsg@sick.com

Slovenija

Phone +386 (0)1-47 69 990
E-Mail office@sick.si

South Africa

Phone +27 11 472 3733
E-Mail info@sickautomation.co.za

South Korea

Phone +82 2 786 6321/4
E-Mail info@sickkorea.net

Suomi

Phone +358-9-25 15 800
E-Mail sick@sick.fi

Sverige

Phone +46 10 110 10 00
E-Mail info@sick.se

Taiwan

Phone +886 2 2375-6288
E-Mail sales@sick.com.tw

Türkiye

Phone +90 (216) 528 50 00
E-Mail info@sick.com.tr

United Arab Emirates

Phone +971 (0) 4 88 65 878
E-Mail info@sick.ae

USA/México

Phone +1(952) 941-6780
1 (800) 325-7425 – tollfree
E-Mail info@sickusa.com

More representatives and agencies
at www.sick.com