



Measuring automation light grids  
RS-485 + 2 x I/O (IO-Link) , MLG-2 Pro

MLG05A-0445I10801



**Model Name** > [MLG05A-0445I10801](#)  
**Part No.** > [1213908](#)



**At a glance**

- High-resolution light grid: Available with beam separation of 2.5 mm (coming soon), 5 mm, 10 mm, 25 mm, and 50 mm
- "High-speed scan" function with triple scanning speed
- "Transparent mode" function for detecting transparent materials
- Switchable to high-resolution evaluation
- Data compression: Run length coding
- Ethernet-based interfaces, including PROFINET, PROFIBUS, and CANopen (coming soon)
- Cloning function via IO-Link or clone plug
- SOPAS configuration software

**Your benefits**

- "High-speed scan" function offers short response times for safely detecting objects traveling at high speeds
- Modular concept offers the perfect solution every time from a single source
- "High measurement accuracy" function for detecting small objects reliably
- "Transparent mode" function for reliably detecting and measuring transparent objects
- Integrated bus interfaces and accompanying functional modules reduce the time and effort involved in the commissioning process
- SOPAS configuration software with menu-driven wizard saves time during the configuration process
- Simple maintenance without the need for specialist staff thanks to the cloning function with IO-Link
- High reliability due to ambient light immunity



**Features**

Technology:	Sender/receiver
Minimum detectable object (MDO) <sup>1)</sup> ; <sup>2)</sup> ; <sup>3)</sup> :	5 mm 9 mm
Beam separation:	5 mm
Number of beams:	90
Detection height:	445 mm
Version:	Pro
Software features:	Baud rate RS-485: 9,600, Interface RS-485: beam status, Q1: presence detection, Teach-in, Standard mode

<sup>1)</sup> MDO min. detectable object at high measurement accuracy <sup>2)</sup> MDO min. detectable object at standard measurement accuracy <sup>3)</sup> Dependent from beam separation without cross beam adjustment

## Performance

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Maximum range <sup>1)</sup> :	11.2 m
Minimum range:	≥0 mm
Response time <sup>2)</sup> , <sup>3)</sup> :	8.2 ms
Working range:	8.5 m

<sup>1)</sup> No reserve for environmental issue and deterioration of the diode <sup>2)</sup> Without high speed <sup>3)</sup> With resistive load

## Interfaces

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Data interface:	RS-485 + 2 x I/O (IO-Link)
Electrical connection:	Male connector M12, 8-pin
IO-Link:	✓

## Mechanics/electronics

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Wave length:	850 nm
Supply voltage Vs <sup>1)</sup> :	DC 18 V ... 30 V
Power consumption sender <sup>2)</sup> :	59.5 mA
Power consumption receiver <sup>3)</sup> :	138 mA
Residual ripple:	< 5 Vpp
Output current I <sub>max</sub> :	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 523.3 mm x 30.6 mm
Housing material:	Aluminum
Indication:	LED
Enclosure rating:	IP 65, IP 67
Circuit protection:	Output Q short-circuit protected, Interference suppression, VS connections reverse-polarity protected
Weight:	1.147 kg
Front screen:	PMMA
Option:	Nonexistent

<sup>1)</sup> Without load <sup>2)</sup> <sup>3)</sup> Without load with 24 V

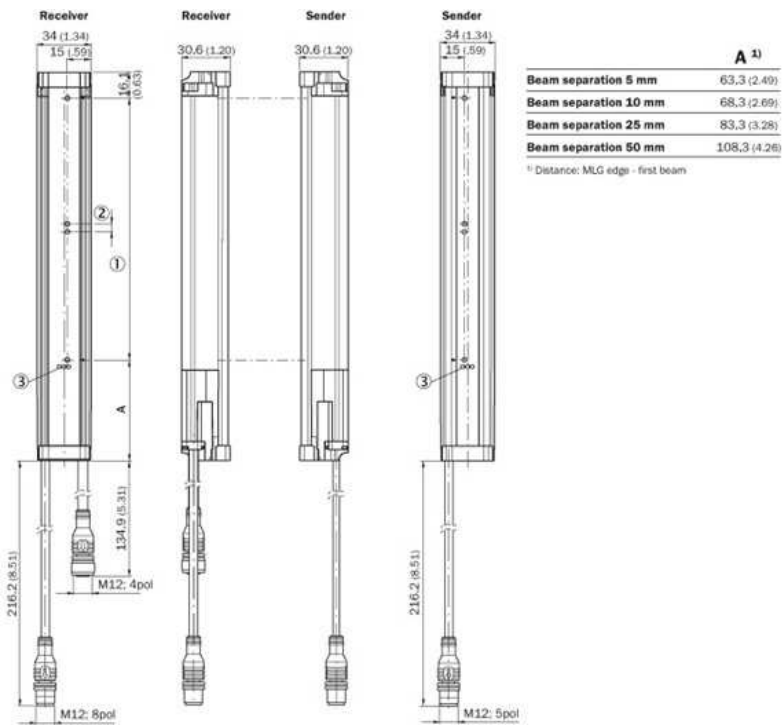
## Ambient data

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Protection class:	III
EMC:	EN 60947-5-2
Ambient temperature:	Operation: -30 ... +55 °C, Storage: -40 ... +70 °C
Vibration resistance:	5 g, 10 Hz ... 55 Hz (EN 60 068-2-64)
Shock load:	15 g/DIN EN 60 068-2-27/16 ms
Ambient light immunity::	Direct: 12,500 ... 150,000 lx, Indirect: ≥50,000 lx <sup>1)</sup> <sup>2)</sup>

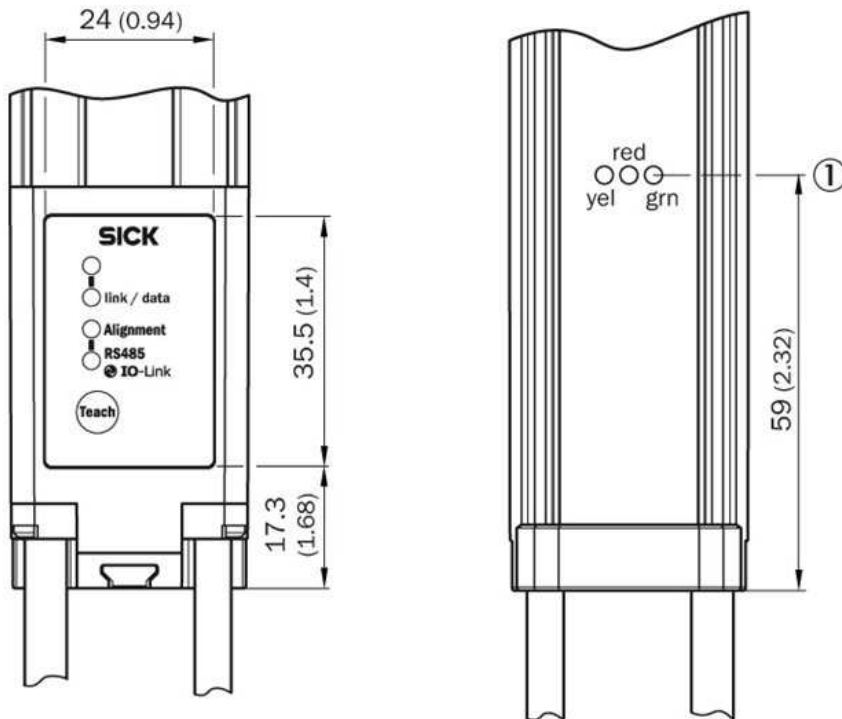
<sup>1)</sup> Outdoor mode <sup>2)</sup> Light resistance indirect

## Dimensional drawing



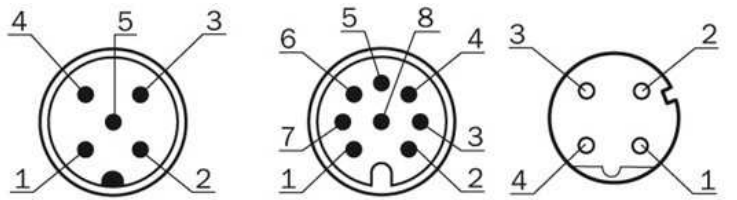
- [1] Detection height (see optical performance)
- [2] Beam separation RM
- [3] Status indicator: LEDs green, yellow, red

## Adjustments



- [1] Status indicator: LEDs green, yellow, red

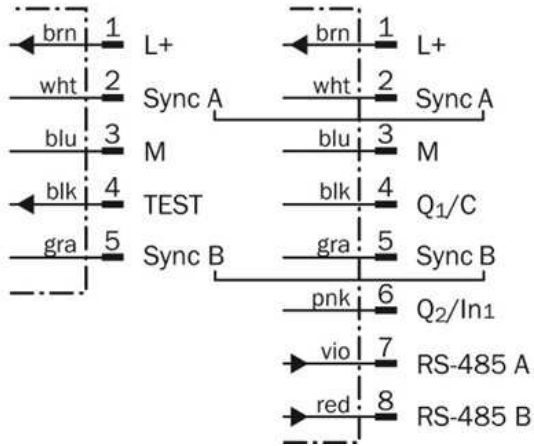
**Anschlussart und -schema**



**Sender**

**Receiver**

**Receiver Ethernet**



**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](http://www.sick.com)