



# MLG00A-1900I1S449

MLG-2 PRO

Measuring automation light grids

**SICK**  
Sensor Intelligence.



### Ordering information

Type	Part no.
MLG00A-19001S449	1085561

Other models and accessories → [www.sick.com/MLG-2\\_Pro](http://www.sick.com/MLG-2_Pro)



### Detailed technical data

#### Features

<b>Version</b>	Pro
<b>Technology</b>	Sender/receiver
<b>Minimum detectable object (MDO)</b>	50 mm, 54 mm <sup>1) 2) 3)</sup>
<b>Beam separation</b>	50 mm
<b>Number of beams</b>	39
<b>Detection height</b>	1,900 mm
<b>Included with delivery</b>	1 × sender 1 × receiver 4/6 × QuickFix brackets (6 × QuickFix brackets for monitoring heights above 2 m) 1 × Quick Start Guide
<b>Specials</b>	<ul style="list-style-type: none"> <li>• RS485-Pre-Settings: 115kBaud, Data: Beam status 8bit; Stop bytes "LF", "CR"; Reporting mode: Continuous.</li> <li>• IO-Pre-Settings: Q1(Pin4): NBB≥1 ; Q2(Pin6): Contamination warning.</li> <li>• Modified SOPAS functions: Special software for mode „sunlight and dust resistant“ with default settings (factory settings via reset mode). All other mode settings and function settings are not confirmed.</li> <li>• Individual beam space</li> </ul>

<sup>1)</sup> MDO min. detectable object at high measurement accuracy.

<sup>2)</sup> MDO min. detectable object for standard measurement accuracy.

<sup>3)</sup> Depending on beam separation without cross beam setting.

#### Performance

<b>Maximum range</b>	12 m <sup>1)</sup>
<b>Minimum range</b>	≥ 0 m
<b>Operating range</b>	8.5 m (Sunlight resistance (direct: 150.000 lx direct, indirect 200.000 lx))
<b>Response time</b>	3.5 x response time XLG-1900I212 <sup>2) 3)</sup>

<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

Communication interface	IO-Link
Data interface (hardware)	RS-485 + 2 x I/O (IO-Link)
Switching output	2 x Q (push-pull)

## Mechanics/electronics

Light source	LED, Infrared light
Wave length	850 nm
Supply voltage $V_s$	DC 18 V ... 30 V <sup>1)</sup>
Power consumption sender	56.95 mA <sup>2)</sup>
Power consumption receiver	127.8 mA <sup>2)</sup>
Ripple	< 5 V <sub>pp</sub>
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 2,023.3 mm x 30.6 mm
Connection type	Male connector M12, 8-pin
Housing material	Aluminum
Indication	LED
Enclosure rating	IP65, IP67 <sup>3)</sup>
Circuit protection	U <sub>v</sub> connections, reverse polarity protected, Output Q short-circuit protected, Interference pulse suppression
Protection class	III
Weight	4.147 kg
Front screen	PMMA
Option	Nonexistent

<sup>1)</sup> Without load.

<sup>2)</sup> , Without load with 24 V.

<sup>3)</sup> Operating in outdoor condition only with a external protection housing.

## Ambient data

Protection class	III
EMC	EN 60947-5-2
Ambient operating temperature	-30 °C +55 °C
Ambient storage temperature	-40 °C +70 °C
Ambient light immunity	Direct: 150,000 lx <sup>1)</sup> Indirect: 200,000 lx <sup>2)</sup>
Vibration resistance	Sinusoidal oscillation 10-150 Hz 5 g
Shock load	Continuous shocks 10 g, 16 ms, 1000 shocks Single shocks 15 g, 11 ms 3 per axle
UL File No.	NRKH.E181493

<sup>1)</sup> Outdoor mode.

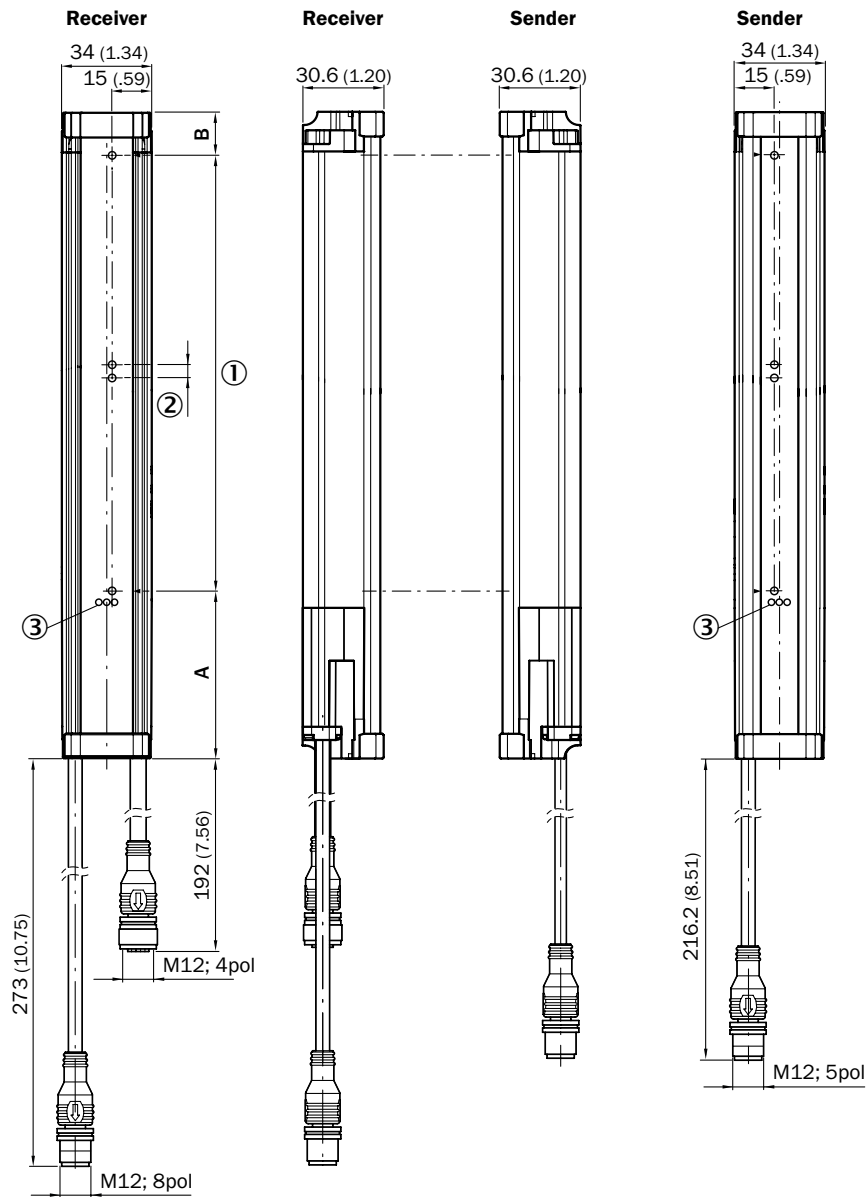
<sup>2)</sup> Light resistance indirect.

### Classifications

ECI@ss 5.0	27270910
ECI@ss 5.1.4	27270910
ECI@ss 6.0	27270910
ECI@ss 6.2	27270910
ECI@ss 7.0	27270910
ECI@ss 8.0	27270910
ECI@ss 8.1	27270910
ECI@ss 9.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549
UNSPSC 16.0901	39121528

Dimensional drawing

Dimensional drawing



	A <sup>1)</sup>	B <sup>2)</sup>
<b>Beam separation 2.5 mm</b>	62.25 (2.45)	17.15 (0.68)
<b>Beam separation 5 mm</b>	63.3 (2.49)	16.1 (0.63)
<b>Beam separation 10 mm</b>	68.3 (2.69)	16.1 (0.63)
<b>Beam separation 20 mm</b>	68.3 (2.69)/78.3 (3.08) <sup>3)</sup>	16.1 (0.63)
<b>Beam separation 25 mm</b>	83.3 (3.28)	16.1 (0.63)
<b>Beam separation 30 mm</b>	88.3 (2.69)	16.1 (0.63)
<b>Beam separation 50 mm</b>	108.3 (4.26)	16.1 (0.63)

<sup>1)</sup> Distance: MLG-2 edge - first beam

<sup>2)</sup> Distance: MLG-2 edge - last beam

<sup>3)</sup> MLG20x-xx**40**: 68.3 mm  
MLG20x-xx**80**: 78.3 mm

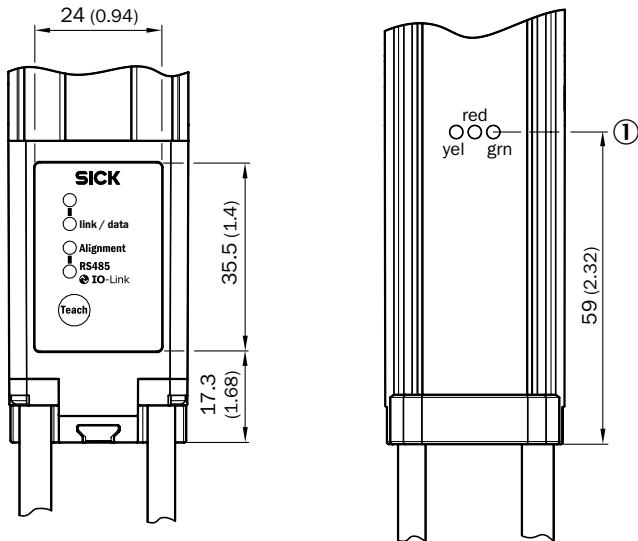
① Detection height (see optical performance)

② Beam separation (RM)

③ Status indicator: green, yellow, red LEDs

### Adjustments

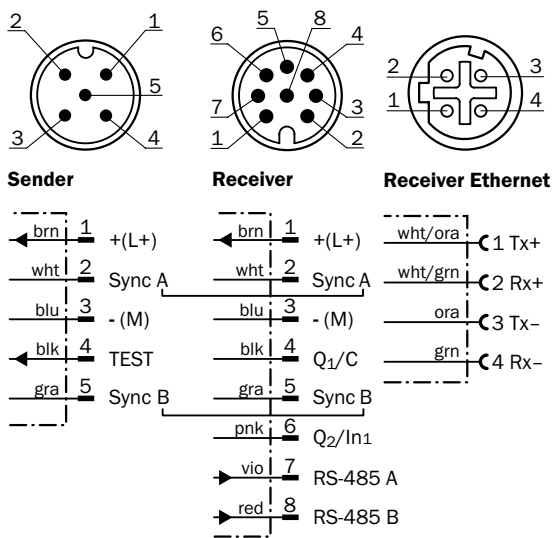
#### Adjustments



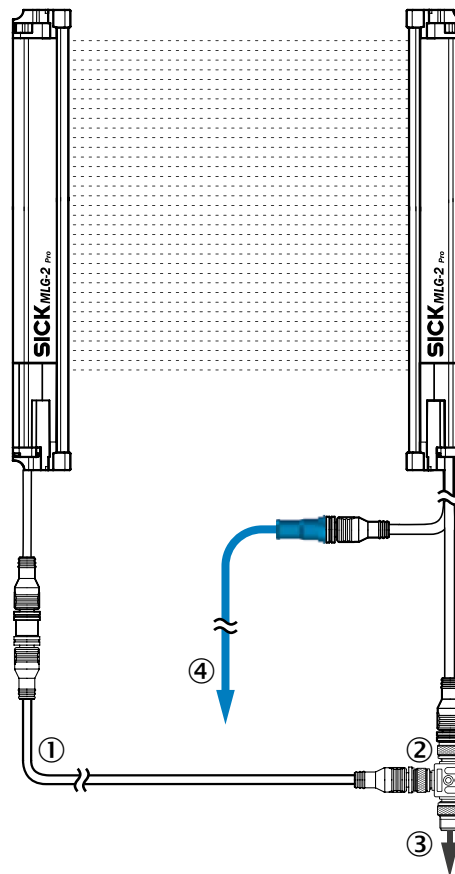
① Status indicator: green, yellow, red LEDs

### Connection type and diagram

Connector M12, 5/8-pin, RS-482 interface



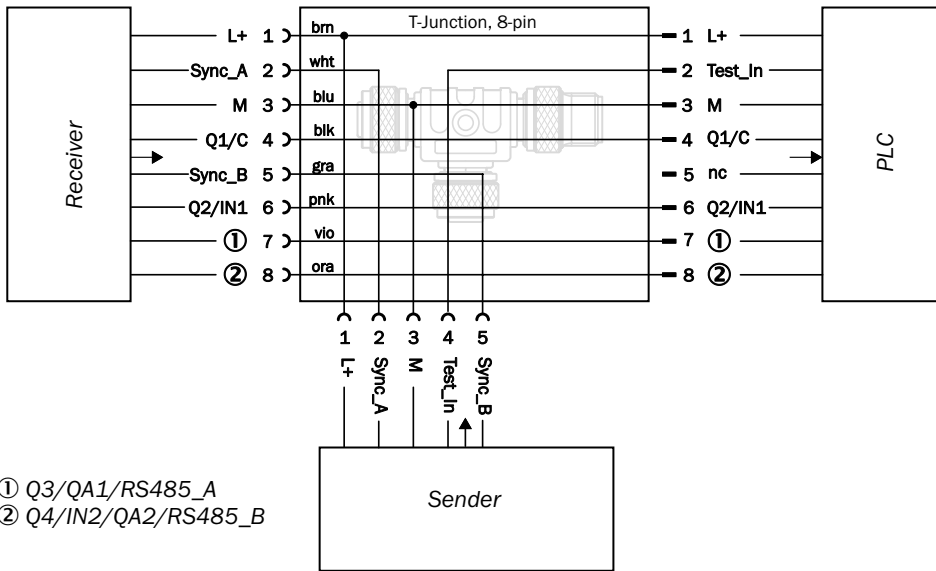
### Connection type



- ① Connection cable receiver (DSL-1205-GxxMC)
- ② T-piece
- ③ Connection cable (DOL-1205-GxxM/DOL-1208-GxxM)
- ④ Ethernet Connection cable


### Connection diagram

Connection diagram T-junction



### Recommended accessories

Other models and accessories → [www.sick.com/MLG-2\\_Pro](http://www.sick.com/MLG-2_Pro)

	Brief description	Type	Part no.
<b>Adapters and distributors</b>			
	-	SB0-02F12-SM1	6053172
<b>Plug connectors and cables</b>			
	Head A: female connector, M12, 8-pin, straight Head B: Flying leads Cable: special color code, PVC, shielded, 5 m	D0L-1208-G05MF	6020664
	Head A: male connector, M12, 4-pin, straight, D-coded Head B: male connector, RJ45, 8-pin, straight Cable: Ethernet, twisted pair, PUR, halogen-free, shielded, 2 m	SSL-2J04-G02ME	6034414
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: male connector, M12, 5-pin, straight, A-coded Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 2 m	YF2A15-020UB-5M2A15	2096009
	Head A: female connector, M12, 8-pin, straight, A-coded Head B: male connector, M12, 8-pin, straight, A-coded Cable: Sensor/actuator cable, PUR, halogen-free, shielded, 2 m	YF2A28-020UA-6M2A28	2096105

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

**For us, that is "Sensor Intelligence."**

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)