

SICK.COM



DATA SHEET

**MLG05W-0333R12503**

MLG-2 WebChecker  
Automation light grids

**SICK** Sensor Intelligence

## AUTOMATION LIGHT GRIDS

# ML- G05W-0333R12503

### ORDERING INFORMATION

Type	part no.
MLG05W-0333R12503	<a href="#">1130877</a>

Further device versions and accessories at [www.sick.com/MLG-2\\_WebChecker](http://www.sick.com/MLG-2_WebChecker)



Illustration may differ

### DETAILED TECHNICAL DATA

#### FEATURES

Device version	Web guiding
Sensor principle	Sender/receiver
Minimum object length	4 mm <sup>1)</sup>
Beam separation	5 mm
Resolution	0.1 mm
Cycle time	32 µs per beam
Repeatability	6 µm <sup>2)</sup>
Accuracy	± 0.3 mm <sup>3)</sup>
Type of synchronization	Cable
Number of beams	180
Total measuring field width	1,345 mm
Measuring field width detailed	
Measuring field width (connection side)	445 mm
Blind zone (medium range)	455 mm

<sup>1)</sup> See graphic: product definition.

<sup>2)</sup> 1 Sigma, 0% object transmission (internal sensor value).

<sup>3)</sup> Typically 0.1 mm. For opaque objects and exact alignment of sender/receiver.

Measuring field width (head side)	445 mm
Software features (default)	<p>Q<sub>1</sub>/C Alarm, general</p> <p>Q<sub>2</sub> Standard teach-in</p> <p>Q<sub>3</sub> Edge position 1</p> <p>Q<sub>4</sub> Edge position 10</p> <p>Application High resolution mode</p>
Included with delivery	<p>1 × sender</p> <p>1 × receiver</p> <p>4/6 x QuickFix brackets (6 x QuickFix brackets for monitoring heights above 2 m)</p> <p>1 × Quick Start Guide</p>

<sup>1)</sup> See graphic: product definition.

<sup>2)</sup> 1 Sigma, 0% object transmission (internal sensor value).

<sup>3)</sup> Typically 0.1 mm. For opaque objects and exact alignment of sender/receiver.

## MECHANICS/ELECTRONICS

Light source	LED, Infrared light
Wave length	850 nm
Supply voltage $V_s$	DC 19.2 V ... 28.8 V <sup>1)</sup>
Power consumption sender	64 mA <sup>2)</sup>
Power consumption receiver	156 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
Switching output	Push-pull: PNP/NPN
Dimensions (W x H x D)	34 mm x 1,429.4 mm x 30.6 mm
Connection type	Plug, M12, 5-pin, 0.22 m Male connector M12, 8-pin, 0.27 m M12 female connector, 4-pin, D-coded, 0.19 m
Housing material	Aluminum
Display	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	2.959 kg
Front screen	PMMA
Option	None
UL File No.	NRKH.E181493

<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.

## PERFORMANCE

Maximum range	3.5 m <sup>1)</sup>
---------------	---------------------

<sup>1)</sup> No reserve for environmental issue and deterioration of the diode.

<sup>2)</sup> With resistive load.

# AUTOMATION LIGHT GRIDS - MLG05W-0333R12503

Minimum range	≥ 0.2 m
Operating range	2.5 m
Response time	36.7 ms <sup>2)</sup>

<sup>1)</sup> No reserve for environmental issue and deterioration of the diode.

<sup>2)</sup> With resistive load.

## INTERFACES

IO-Link	✓, IO-Link V1.1
Data transmission rate	230,4 kbit/s (COM3)
Maximum cable length	20 m
Cycle time	3 ms
VendorID	26
DeviceID HEX	80022F
DeviceID DEC	8389167
Process data length	32 Byte (TYPE_2_V) <sup>1)</sup>
Inputs/outputs	4 x Q (IO-Link)
Digital output	Q <sub>1</sub> ... Q <sub>4</sub>
Number	4
Digital input	Q <sub>2</sub> , Q <sub>3</sub> , Q <sub>4</sub>
Number	3

<sup>1)</sup> For an IO-Link master with V1.0, reverts to interleaved mode (consisting of TYPE\_1\_1 (ProcessData) and TYPE\_1\_2 (on-request data)).

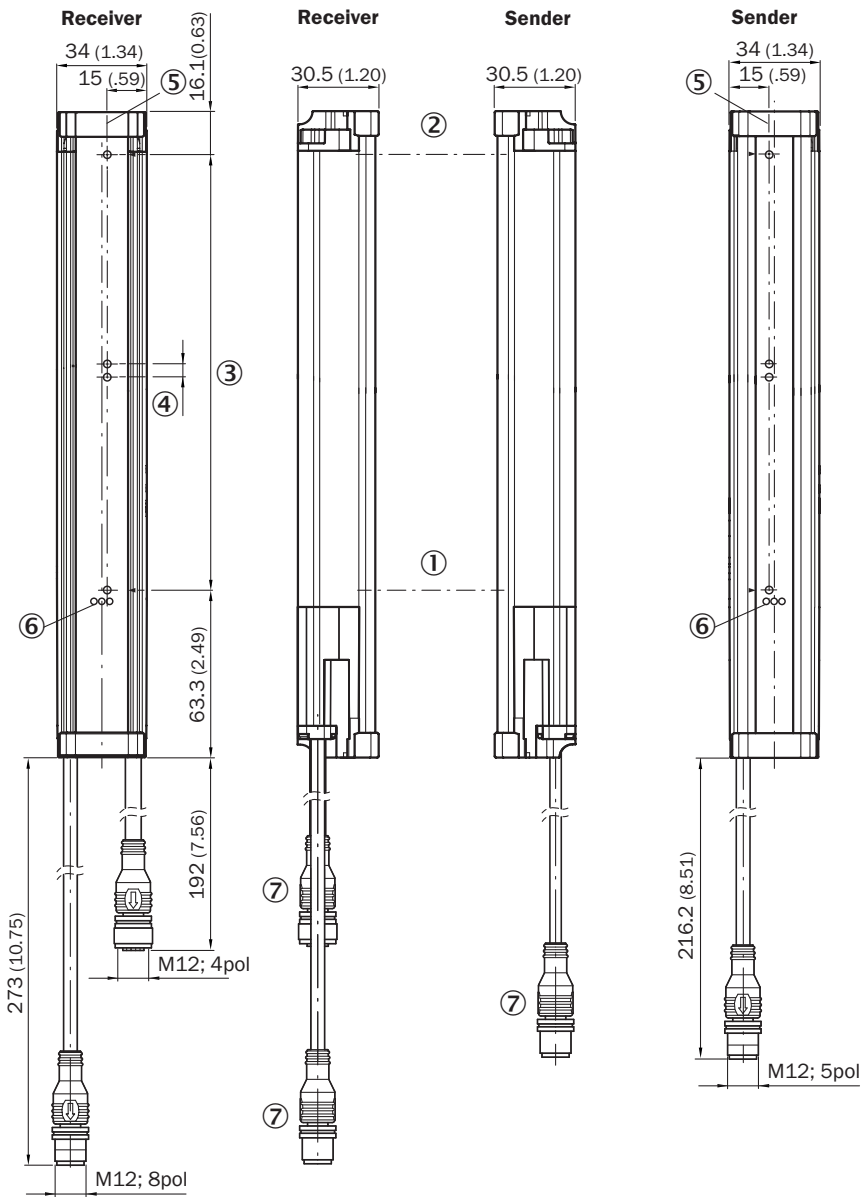
## AMBIENT DATA

Shock resistance	Continuous shocks 10 g, 16 ms, 1000 shocks Single shocks 15 g, 11 ms 3 per axle
Vibration resistance	Sinusoidal oscillation 10-150 Hz 5 g
Ambient light immunity	100,000 lx
Ambient operating temperature	-30 °C ... +55 °C
Ambient temperature, storage	-40 °C ... +70 °C

## CERTIFICATES

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
cULus certificate	✓
IO-Link certificate	✓
Photobiological safety (IEC EN 62471)	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

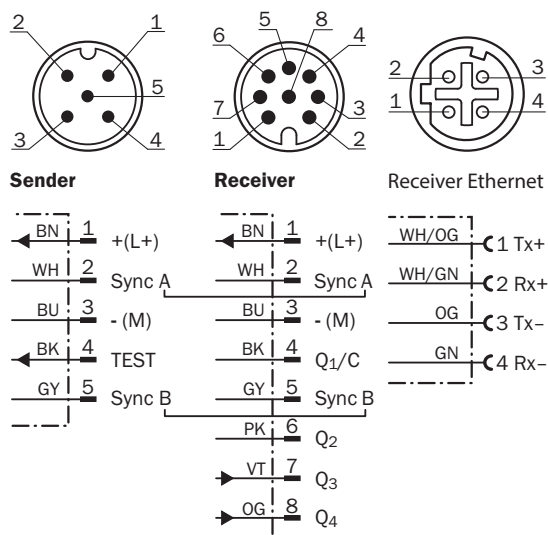
**DIMENSIONAL DRAWING**



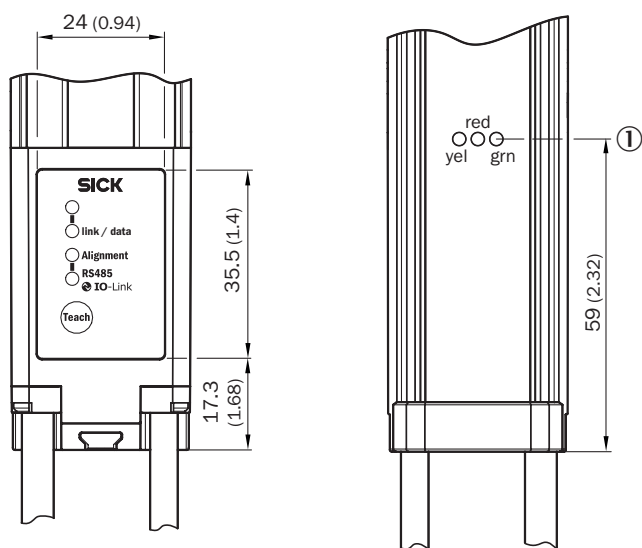
Dimensions in mm (inch)

- ① First beam
- ② last beam
- ③ total measuring field width (see technical data)
- ④ Beam separation
- ⑤ Optical axis
- ⑥ status indicator: green, yellow, red LEDs
- ⑦ Connection

**CONNECTION TYPE AND DIAGRAM MLG-2 WEBCHECKER**



**ADJUSTMENTS**



① status indicator: green, yellow, red LEDs

CONNECTION DIAGRAM T-PIECE



**PRODUCT DEFINITION**



- ① operating range
- ② total measuring field width
- ③ measuring field width (head side)
- ④ Blind zone (medium range)
- ⑤ measuring field width (connection side)
- ⑥ sender
- ⑦ receiver
- ⑧ Beam separation
- ⑨ minimum object length

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at [www.sick.com/1130877](http://www.sick.com/1130877)



SICK AG  
WALDKIRCH  
GERMANY  
SICK.COM

# SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

**SICK**  
Sensor Intelligence