



# MLG05W-OD00N12501

MLG-2 WebChecker

MEASURING AUTOMATION LIGHT GRIDS

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

| Type              | Part no. |
|-------------------|----------|
| MLG05W-0D00N12501 | 1116693  |

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

### Detailed technical data

#### Features

|                                         |                                                                                                                                                                |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Device version</b>                   | Web guiding                                                                                                                                                    |
| <b>Sensor principle</b>                 | Sender/receiver                                                                                                                                                |
| <b>Minimum object length</b>            | 4 mm <sup>1)</sup>                                                                                                                                             |
| <b>Beam separation</b>                  | 5 mm                                                                                                                                                           |
| <b>Resolution</b>                       | 0.1 mm                                                                                                                                                         |
| <b>Cycle time</b>                       | 32 µs per beam                                                                                                                                                 |
| <b>Repeatability</b>                    | 6 µm <sup>2)</sup>                                                                                                                                             |
| <b>Accuracy</b>                         | ± 0.3 mm <sup>3)</sup>                                                                                                                                         |
| <b>Type of synchronization</b>          | Cable                                                                                                                                                          |
| <b>Number of beams</b>                  | 390                                                                                                                                                            |
| <b>Total measuring field width</b>      | 1,945 mm                                                                                                                                                       |
| <b>Measuring field width detailed</b>   |                                                                                                                                                                |
| Measuring field width (connection side) | 1,945 mm                                                                                                                                                       |
| Blind zone (medium range)               | 0 mm                                                                                                                                                           |
| Measuring field width (head side)       | 0 mm                                                                                                                                                           |
| <b>Software features (default)</b>      |                                                                                                                                                                |
| Q <sub>1</sub>                          | Alarm, general                                                                                                                                                 |
| Application                             | Standard mode                                                                                                                                                  |
| <b>Included with delivery</b>           | 1 × sender<br>1 × receiver<br>1 × Fieldbus module<br>4/6 × QuickFix brackets (6 × QuickFix brackets for monitoring heights above 2 m)<br>1 × Quick Start Guide |

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

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

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

## Mechanics/electronics

|                                            |                                                                                                                              |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <b>Light source</b>                        | LED, Infrared light                                                                                                          |
| <b>Wave length</b>                         | 850 nm                                                                                                                       |
| <b>Supply voltage <math>V_s</math></b>     | DC 19.2 V ... 28.8 V <sup>1)</sup>                                                                                           |
| <b>Power consumption sender</b>            | 74.5 mA <sup>2)</sup>                                                                                                        |
| <b>Power consumption receiver</b>          | 198 mA <sup>2)</sup>                                                                                                         |
| <b>Fieldbus module current consumption</b> | 115 mA                                                                                                                       |
| <b>Ripple</b>                              | < 5 V <sub>pp</sub>                                                                                                          |
| <b>Output current <math>I_{max}</math></b> | 100 mA                                                                                                                       |
| <b>Output load, capacitive</b>             | 100 nF                                                                                                                       |
| <b>Output load, Inductive</b>              | 1 H                                                                                                                          |
| <b>Initialization time</b>                 | < 1 s                                                                                                                        |
| <b>Switching output</b>                    | Push-pull: PNP/NPN                                                                                                           |
| <b>Dimensions (W x H x D)</b>              | 34 mm x 2,029.4 mm x 30.6 mm                                                                                                 |
| <b>Connection type</b>                     | Male connector M12, 5-pin, 0.22 m<br>Connector M12, 12-pin, 0.27 m                                                           |
| <b>Housing material</b>                    | Aluminum                                                                                                                     |
| <b>Indication</b>                          | LED                                                                                                                          |
| <b>Enclosure rating</b>                    | IP65, IP67<br><sup>3)</sup>                                                                                                  |
| <b>Circuit protection</b>                  | U <sub>V</sub> connections, reverse polarity protected<br>Output Q short-circuit protected<br>Interference pulse suppression |
| <b>Protection class</b>                    | III                                                                                                                          |
| <b>Weight</b>                              | 4.159 kg                                                                                                                     |
| <b>Front screen</b>                        | PMMA                                                                                                                         |
| <b>Option</b>                              | None                                                                                                                         |
| <b>UL File No.</b>                         | 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

|                        |                       |
|------------------------|-----------------------|
| <b>Maximum range</b>   | 3.5 m <sup>1)</sup>   |
| <b>Minimum range</b>   | ≥ 0.2 m               |
| <b>Operating range</b> | 2.5 m                 |
| <b>Response time</b>   | 78.1 ms <sup>2)</sup> |

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

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

## Communication interface

|                       |                |
|-----------------------|----------------|
| <b>PROFINET</b>       | ✓              |
| <b>Digital output</b> | Q <sub>1</sub> |
| Number                | 1              |

### Ambient data

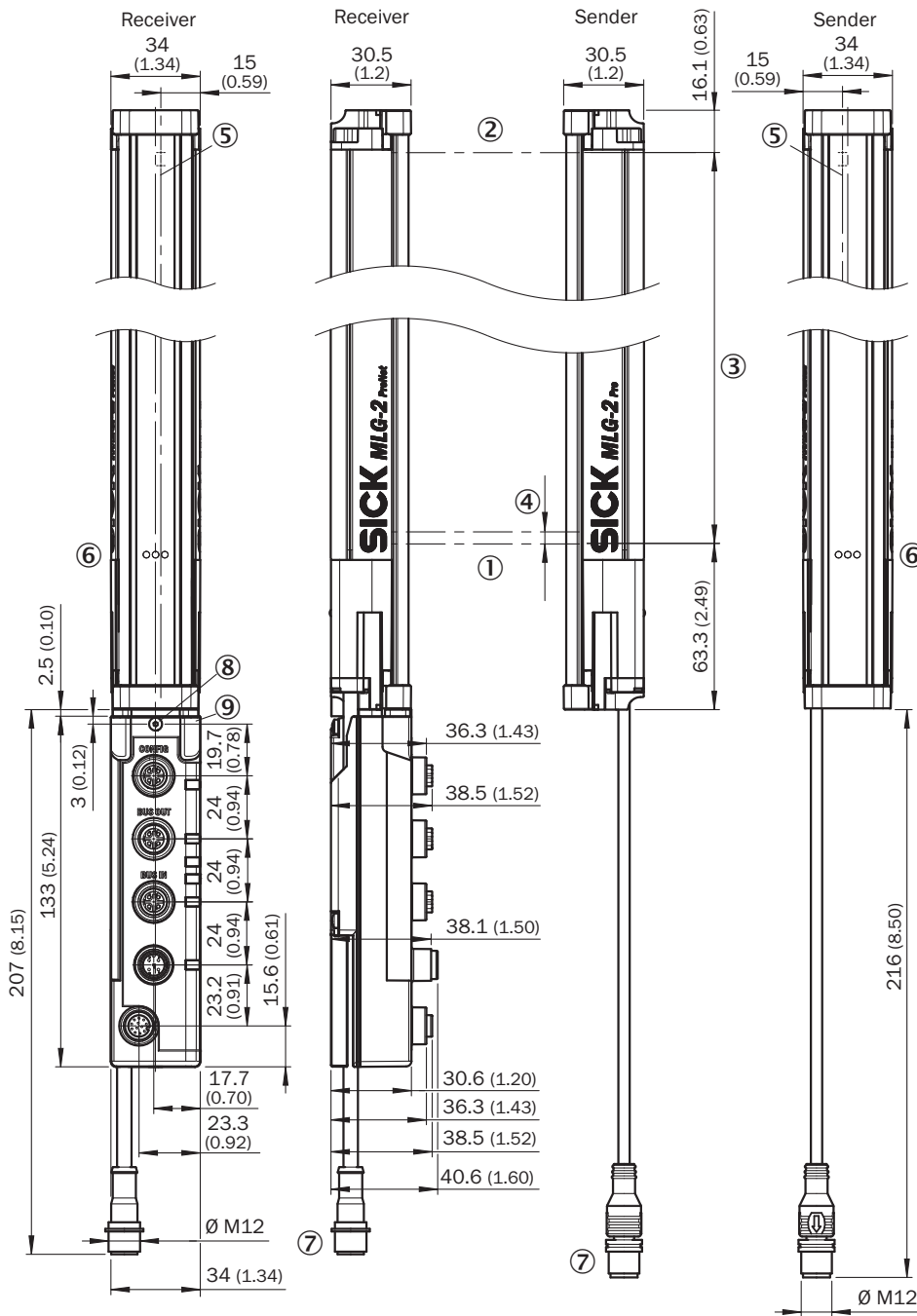
|                                      |                                                                                    |
|--------------------------------------|------------------------------------------------------------------------------------|
| <b>Shock resistance</b>              | Continuous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

### Classifications

|                       |          |
|-----------------------|----------|
| <b>ECLASS 5.0</b>     | 27270910 |
| <b>ECLASS 5.1.4</b>   | 27270910 |
| <b>ECLASS 6.0</b>     | 27270910 |
| <b>ECLASS 6.2</b>     | 27270910 |
| <b>ECLASS 7.0</b>     | 27270910 |
| <b>ECLASS 8.0</b>     | 27270910 |
| <b>ECLASS 8.1</b>     | 27270910 |
| <b>ECLASS 9.0</b>     | 27270910 |
| <b>ECLASS 10.0</b>    | 27270910 |
| <b>ECLASS 11.0</b>    | 27270910 |
| <b>ECLASS 12.0</b>    | 27270910 |
| <b>ETIM 5.0</b>       | EC002549 |
| <b>ETIM 6.0</b>       | EC002549 |
| <b>ETIM 7.0</b>       | EC002549 |
| <b>ETIM 8.0</b>       | EC002549 |
| <b>UNSPSC 16.0901</b> | 39121528 |

Dimensional drawing (Dimensions in mm (inch))

Dimensional drawing



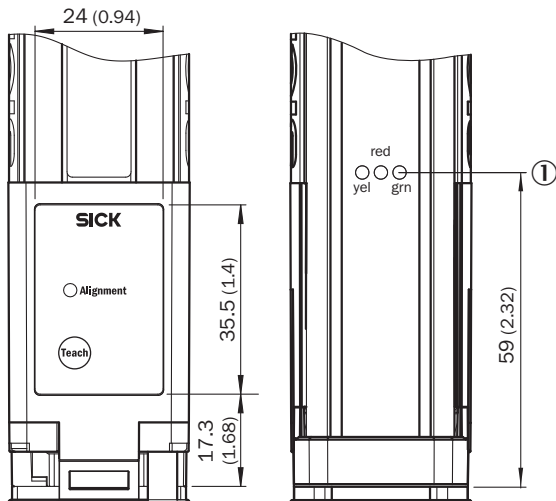
- ① First beam
- ② Last beam
- ③ Total measuring field width (see technical data)
- ④ Beam separation
- ⑤ Optical axis
- ⑥ Status indicator: green, yellow, red LEDs
- ⑦ Connection

PROFINET, EtherCAT®, EtherNet/IP



- ① Safty screw M4; turning moment 0,5 Nm
- ② For thread bold M4; turning moment 0,5 Nm

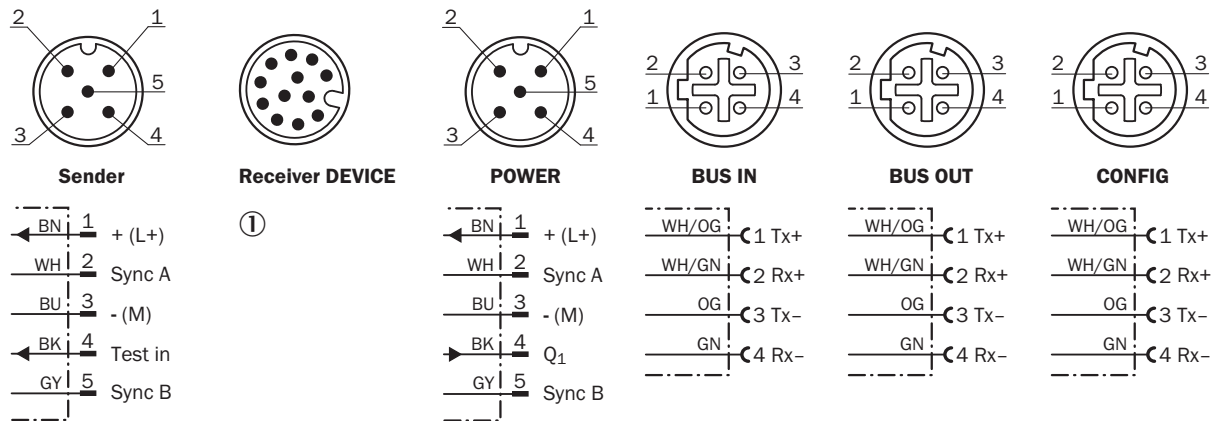
### Adjustments



- ① Status indicator: green, yellow, red LEDs

### Connection type and diagram

MLG-2 WebChecker



① Connection to fieldbus module

### Pin assignment

Ethernet

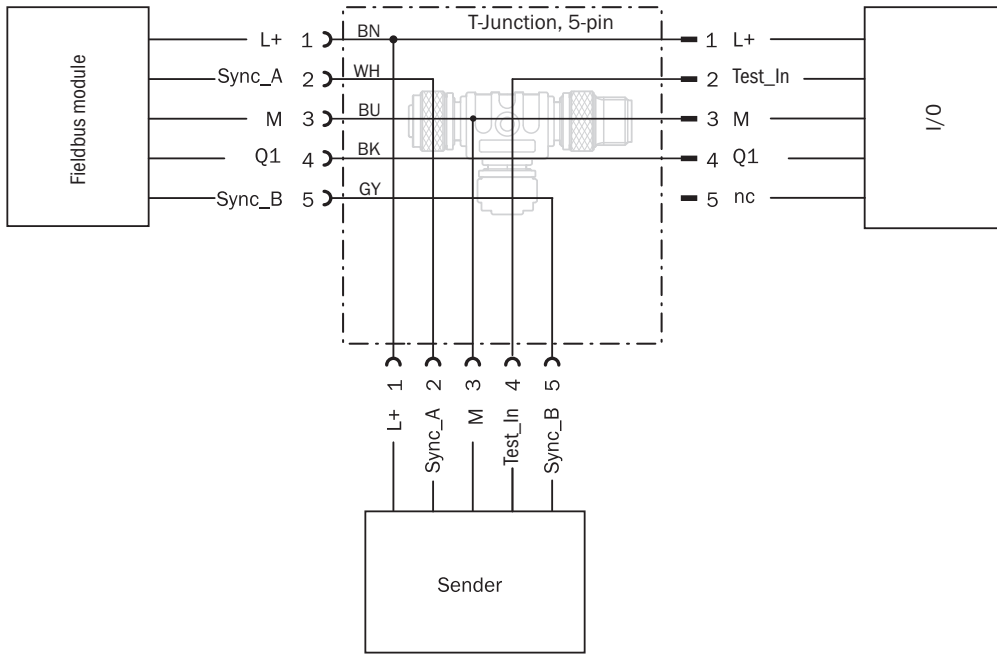


- ① Connection cable receiver (2096010)
- ② T-piece
- ③ Connection cable (2096240)
- ④ Connection receiver "DEVICE"
- ⑤ Connection cable "POWER" (2096010)
- ⑥ Ethernet Connection cable "BUS IN, BUS OUT"
- ⑦ Ethernet connection cable "CONFIG"

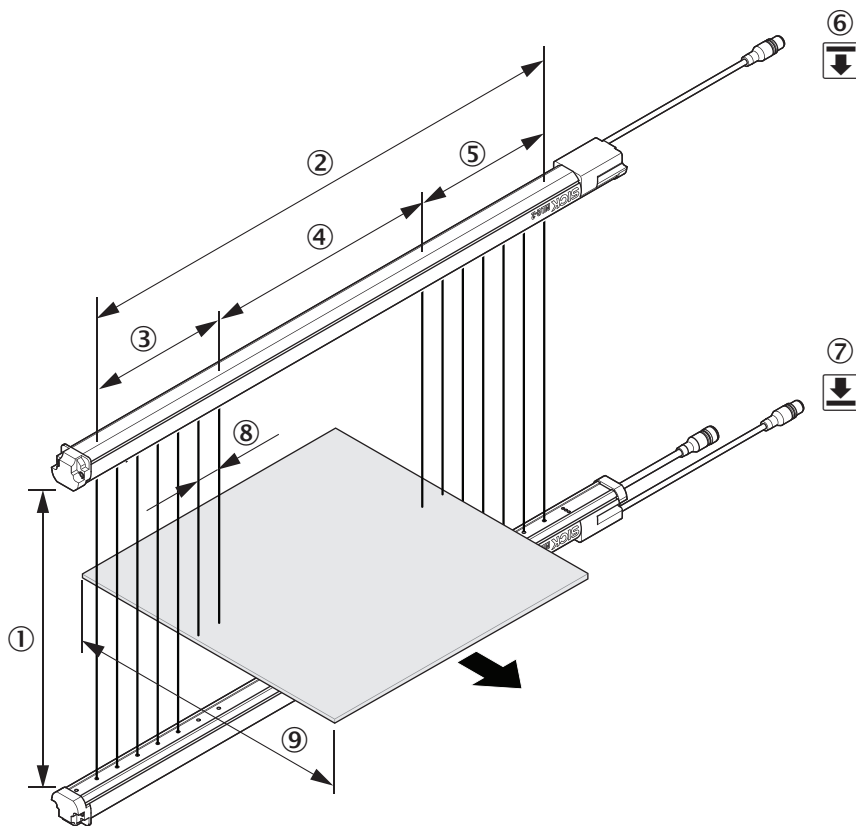


Connection diagram

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

### Recommended accessories

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

|                                                                                     | Brief description                                                                                                                                                                                                                                                                                                                                                                                                 | Type         | Part no. |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------|
| Distributors                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                   |              |          |
|  | <ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Female connector, M12, 5-pin, A-coded</li> <li>• <b>Connection type head B:</b> Female connector, M12, 5-pin, A-coded</li> <li>• <b>Connection type head C:</b> Male connector, M12, 5-pin, A-coded</li> <li>• <b>Note:</b> Male connector M12, 5-pin, straight, A-coded to 2 x female connector M12, 5-pin, straight, A-coded</li> </ul> | SBO-02G12-SM | 6029305  |

|                                                                                     | Brief description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Type               | Part no. |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------|
| Plug connectors and cables                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |          |
|    | <ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Female connector, M12, 5-pin, straight, A-coded</li> <li>• <b>Connection type head B:</b> Flying leads</li> <li>• <b>Signal type:</b> Sensor/actuator cable</li> <li>• <b>Cable:</b> 5 m, 5-wire, PVC</li> <li>• <b>Description:</b> Sensor/actuator cable, unshielded</li> <li>• <b>Application:</b> Zones with chemicals</li> </ul>                                                                                                     | YF2A15-050VB5XLEAX | 2096240  |
|    | <ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Female connector, M12, 5-pin, straight, A-coded</li> <li>• <b>Connection type head B:</b> Male connector, M12, 5-pin, straight, A-coded</li> <li>• <b>Signal type:</b> Sensor/actuator cable</li> <li>• <b>Cable:</b> 5 m, 5-wire, PUR, halogen-free</li> <li>• <b>Description:</b> Sensor/actuator cable, unshielded</li> <li>• <b>Application:</b> Zones with oils and lubricants, Drag chain operation, Robot</li> </ul>               | YF2A15-050UB5M2A15 | 2096010  |
|    | <ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Male connector, M12, 4-pin, D-coded</li> <li>• <b>Connection type head B:</b> Male connector, M12, 4-pin, D-coded</li> <li>• <b>Signal type:</b> Ethernet</li> <li>• <b>Cable:</b> 5 m, 4-wire, PUR, halogen-free</li> <li>• <b>Description:</b> Ethernet, twisted pair, shielded</li> <li>• <b>Permitted cross-section:</b> <math>\geq 0.25 \text{ mm}^2</math></li> <li>• <b>Application:</b> Zones with oils and lubricants</li> </ul> | YM2D24-050EA2M2D24 | 6034422  |
|    | <ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Male connector, M12, 4-pin, straight, D-coded</li> <li>• <b>Connection type head B:</b> Male connector, RJ45, 4-pin, straight</li> <li>• <b>Signal type:</b> Ethernet, PROFINET</li> <li>• <b>Cable:</b> 5 m, 4-wire, PUR, halogen-free</li> <li>• <b>Description:</b> Ethernet, PROFINET, shielded</li> <li>• <b>Application:</b> Drag chain operation, Zones with oils and lubricants</li> </ul>                                        | YM2D24-050PN1MRJA4 | 2106184  |
| Terminal and alignment brackets                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |          |
|  | Mounting bracket for external mounting of the fieldbus module, 1 × mounting bracket and 1 × M5 × 6 screw, Stainless steel V2A (1.4301)                                                                                                                                                                                                                                                                                                                                                                            | BEF-WN-FBM-SET1    | 2082322  |

## 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.

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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.”

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