



Advanced automation light grids  
MLG, MLG Analog Output

MLG5-0100N812



**Model Name** > [MLG5-0100N812](#)  
**Part No.** > [1055187](#)



**At a glance**

- Two analog outputs: voltage to current
- 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 of
- Teach algorithm for optimal sensitivity settings in difficult applications, such as measuring translucent objects
- Easy-to-use setup software for customized applications with new features
- Software tools, such as height measurement, zoning, hole detection, and presence control make implementation of complex solutions achievable

**Your benefits**

- Intelligent evaluation software saves costs by quickly and easily turning a standard sensor into a custom problem solver, reducing the number of sensors, PLCs and programming required
- Easy-to-see status information helps avoid interrupting operation
- Different beam separation options, detection heights and output configurations ensure a reliable solution
- Integrated analog outputs reduce integration costs for measuring applications, because no additional software is necessary
- Discrete outputs for custom solutions without a PLC
- Tough metal housing stands up to harsh environments and reduces downtime



**Features**

|                                  |  |
|----------------------------------|--|
| Technology:                      | Sender/receiver                        |
| Task:                            | Measurement light grid                 |
| Minimum detectable object (MDO): | Parallel beam: $\geq 55$ mm            |
| Beam separation:                 | 50 mm                                  |
| Number of beams:                 | 3                                      |
| Detection height:                | 100 mm                                 |
| Configuration:                   | Parameterization interface (measuring) |

**Performance**

|                               |                               |
|-------------------------------|-------------------------------|
| Maximum range <sup>1)</sup> : | 7 m                           |
| Minimum range:                | Parallel beam: $\geq 0$ mm    |
| Response time <sup>2)</sup> : | Parallel beam: $\geq 1.45$ ms |
| Working range <sup>3)</sup> : | 5 m                           |

1) No reserve for environmental issue and deterioration of the diode 2) With resistive load 3) Aperture  $\pm 3^\circ$

## Interfaces

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|                  |                      |
|------------------|----------------------|
| Output type:     | 1 x NPN, 2 x Analog  |
| Inputs:          | 1 x NPN              |
| Connection type: | Connector M12, 8-pin |
| IO-Link:         | 0                    |

## Mechanics/electronics

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|  |   |
|--|---|
| Wave length:                               | IR 880 nm   |
| Supply voltage $V_s$ <sup>1)</sup> :       | DC 18 V ... 30 V  |
| Power consumption sender <sup>2)</sup> :   | 146 mA  |
| Power consumption receiver <sup>3)</sup> : | 109 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 214 mm x 29 mm  |
| Housing material:                          | Aluminum  |
| Indication:                                | 7-segment display, LED  |
| Synchronization:                           | Cable   |
| Enclosure rating:                          | IP 65   |
| Circuit protection:                        | Output Q short-circuit protected, Interference suppression, VS connections reverse-polarity protected |
| Weight:                                    | 0.73 kg   |
| Power consumption:                         | 146 mA <sup>4)</sup>  |
| Front screen:                              | PMMA  |

1) Without load <sup>2) 3) 4)</sup> Without load with 24 V

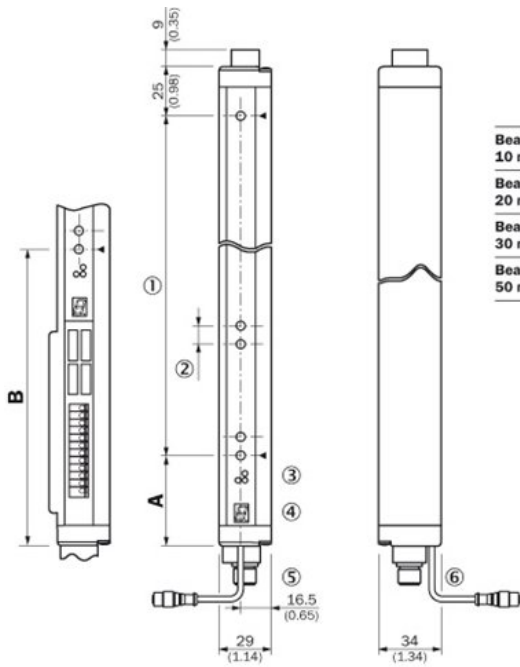
## Ambient data

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|  |  |
|--|--|
| Protection class:                        | III  |
| EMC:                                     | EN 60947-5-2   |
| Ambient temperature:                     | Operation: -25 ... 55 °C, Storage: -40 ... 70 °C     |
| Ambient light safety <sup>1), 2)</sup> : | Direct: $\geq 12,500$ lx, Indirect: $\geq 50,000$ lx |
| Vibration resistance:                    | 5 g, 10 Hz ... 55 Hz (IEC 68-2-6)                    |
| Shock load:                              | 10 g/IEC 68-2-29/16 ms                               |

1) 2) Sunlight

## Dimensional drawing

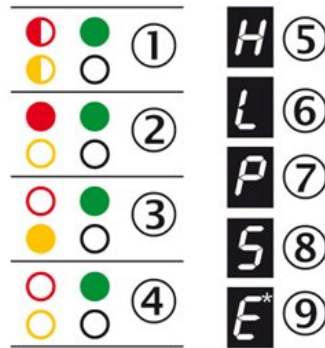
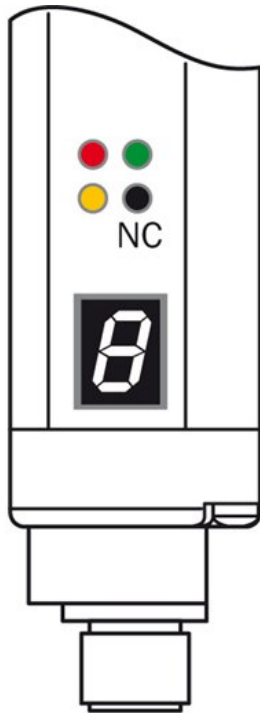


|                                       | A                               | B          |
|---------------------------------------|---------------------------------|------------|
|                                       | Distance: MLG edge - first beam |            |
| <b>Beam separation MLG1<br/>10 mm</b> | 49 (1.93)                       | 160 (6.30) |
| <b>Beam separation MLG2<br/>20 mm</b> | 49 (1.93) <sup>1)</sup>         | 170 (6.69) |
| <b>Beam separation MLG3<br/>30 mm</b> | 69 (2.72)                       | 180 (7.09) |
| <b>Beam separation MLG5<br/>50 mm</b> | 89 (3.50)                       | 200 (7.87) |

<sup>1)</sup> With even number of beams.  
<sup>2)</sup> 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| Terminals: M16 cable entry/connector M12, 12-pin
- |6| Configuration connector M8, 4-pin

## Adjustments receiver



- ☉ blinks with 3 Hz
- on
- out
- ◐ on or out

- |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

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