



MLG05W-0F00H52501

MLG-2 WebChecker

MEASURING AUTOMATION LIGHT GRIDS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
MLG05W-0F00H52501	1113745

Other models and accessories → www.sick.com/MLG-2_WebChecker

Detailed technical data

Features

Device version	Web guiding
Sensor principle	Sender/receiver
Minimum object length	4 mm ¹⁾
Beam separation	5 mm
Resolution	0.1 mm
Cycle time	32 µs per beam
Repeatability	6 µm ²⁾
Accuracy	± 0.3 mm ³⁾
Type of synchronization	Cable
Number of beams	450
Total measuring field width	2,245 mm
Measuring field width detailed	
Measuring field width (connection side)	2,245 mm
Blind zone (medium range)	0 mm
Measuring field width (head side)	0 mm
Software features (default)	
Q ₁	Alarm, general
Application	Standard mode
Included with delivery	1 × sender (in IP69K protective pipes) 1 × receiver (in IP69K protective pipes) 1 × Fieldbus module 1 × IP69K mounting instructions 1 × Quick Start Guide

¹⁾ See graphic: product definition.

²⁾ 1 sigma, 0% object transmission (sensor internal value).

³⁾ 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 ¹⁾
Power consumption sender	77.5 mA ²⁾
Power consumption receiver	210 mA ²⁾
Fieldbus module current consumption	115 mA
Ripple	< 5 V _{pp}
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)	50 mm x 2,480.1 mm x 50 mm
Connection type	Male connector M12, 5-pin, 1.4 m Connector M12, 12-pin, 1.4 m
Housing material	Aluminum (light grid) PMMA Plexiglas XT Food Contact DoC (protective pipe) Polypropylene, stainless steel 1.4404 (cable) VA 1.4305 (pressure compensation element) Stainless steel 1.4404 (end caps) Stainless steel V4A 1.4404 DIN EN 1672-2 (cable gland)
Indication	LED
Enclosure rating	IP69K ³⁾
Circuit protection	U _V connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
Protection class	III
Weight	4.759 kg
Option	Protective housing IP69K
UL File No.	NRKH.E181493

¹⁾ Without load.

²⁾ , Without load with 24 V.

³⁾ Operating in outdoor condition only with a external protection housing.

Performance

Maximum range	3.5 m ¹⁾
Minimum range	≥ 0.2 m
Operating range	2.5 m
Response time	89.9 ms ²⁾

¹⁾ No reserve for environmental issue and deterioration of the diode.

²⁾ With resistive load.

Communication interface

EtherNet/IP™	✓
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Digital output	Q ₁
Number	1

Ambient data

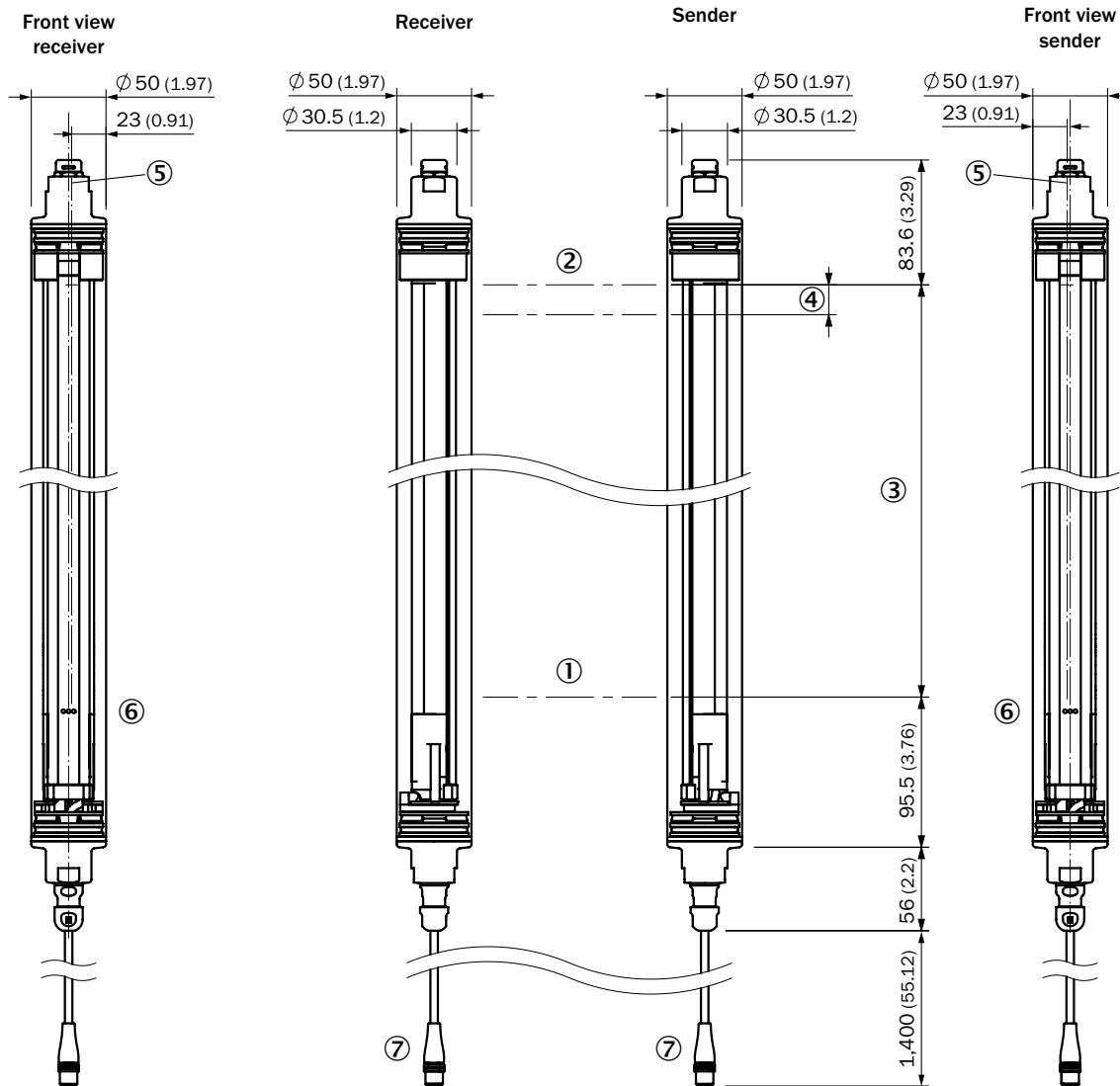
Shock resistance	Continuous shocks 10 g, 16 ms, 1000 shocks Single shocks 15 g, 11 ms 3 per axle
Vibration resistance	Sinusoidal oscillation 10-150 Hz 5 g
Ambient light immunity	100,000 lx
Ambient operating temperature	-20 °C ... +55 °C
Ambient temperature, storage	-40 °C ... +70 °C

Classifications

ECLASS 5.0	27270910
ECLASS 5.1.4	27270910
ECLASS 6.0	27270910
ECLASS 6.2	27270910
ECLASS 7.0	27270910
ECLASS 8.0	27270910
ECLASS 8.1	27270910
ECLASS 9.0	27270910
ECLASS 10.0	27270910
ECLASS 11.0	27270910
ECLASS 12.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549
UNSPSC 16.0901	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

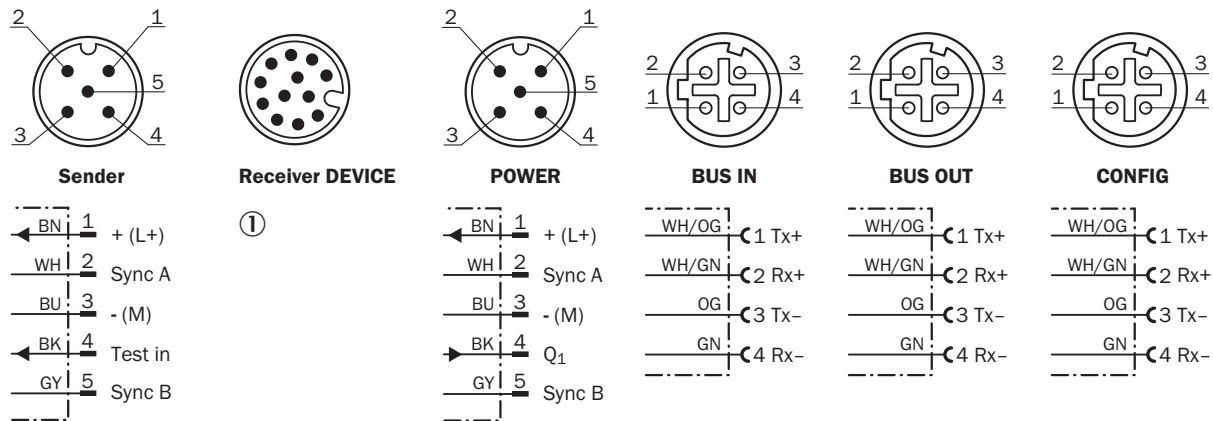
Adjustments



- ① Status indicator: green, yellow, red LEDs

Connection type and diagram

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① Connection to fieldbus module

Pin assignment

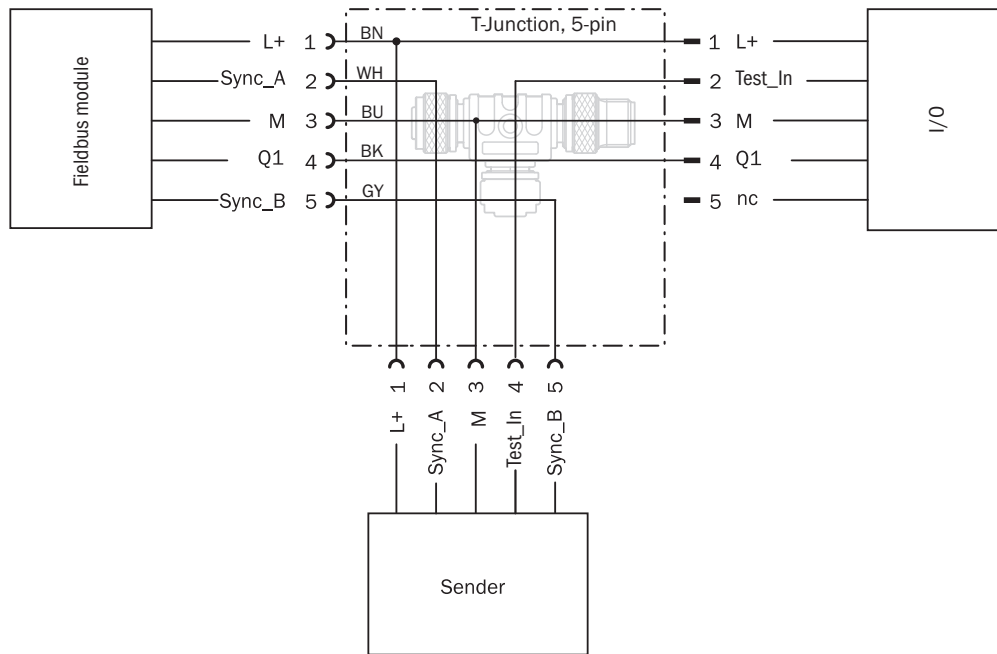
Ethernet



- 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

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

	Brief description	Type	Part no.
Plug connectors and cables			
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 5-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 5 m, 5-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Zones with chemicals 	YF2A15-050VB5XLEAX	2096240
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 5-pin, straight, A-coded • Connection type head B: Male connector, M12, 5-pin, straight, A-coded • Signal type: Sensor/actuator cable • Cable: 5 m, 5-wire, PUR, halogen-free • Description: Sensor/actuator cable, unshielded • Application: Zones with oils and lubricants, Drag chain operation, Robot 	YF2A15-050UB5M2A15	2096010
	<ul style="list-style-type: none"> • Connection type head A: Male connector, M12, 4-pin, D-coded • Connection type head B: Male connector, M12, 4-pin, D-coded • Signal type: Ethernet • Cable: 5 m, 4-wire, PUR, halogen-free • Description: Ethernet, twisted pair, shielded • Permitted cross-section: $\geq 0.25 \text{ mm}^2$ • Application: Zones with oils and lubricants 	YM2D24-050EA2M2D24	6034422
	<ul style="list-style-type: none"> • Connection type head A: Male connector, M12, 4-pin, straight, D-coded • Connection type head B: Male connector, RJ45, 4-pin, straight • Signal type: Ethernet, PROFINET • Cable: 5 m, 4-wire, PUR, halogen-free • Description: Ethernet, PROFINET, shielded • Application: Drag chain operation, Zones with oils and lubricants 	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

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For us, that is “Sensor Intelligence.”

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