



MLG05S-1045D10501

MLG-2

MEASURING AUTOMATION LIGHT GRIDS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
MLG05S-1045D10501	1219043

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



Detailed technical data

Features

Device version	Prime - Standard functionality
Sensor principle	Sender/receiver
Minimum detectable object (MDO)	9 mm ¹⁾
Beam separation	5 mm
Number of beams	210
Detection height	1,045 mm
Software features (default)	Q₁ Auto-define height classification Q₂ / IN Auto-define height classification Q₃ Auto-define height classification inverted — Teach — key lock off
Operating mode	Standard ✓
Function	Cross beam ✓ Beam blanking ✓
Applications	Switching output Object recognition Object recognition Height classification

¹⁾ Depending on beam separation without cross beam setting.

	Data interface	Object recognition Object height measurement
Included with delivery		1 × sender 1 × receiver 4/6 x QuickFix brackets (6 x QuickFix brackets for monitoring heights above 2 m) 1 × Quick Start Guide

¹⁾ Depending on beam separation without cross beam setting.

Mechanics/electronics

Light source	LED, Infrared light
Wave length	850 nm
Supply voltage V_s	DC 18 V ... 30 V ¹⁾
Power consumption sender	65.5 mA ²⁾
Power consumption receiver	162 mA ²⁾
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
Connection type	Male connector M12, 5-pin, 0.22 m Male connector M12, 5-pin, 0.22 m
Housing material	Aluminum
Indication	LED
Enclosure rating	IP65, IP67 ³⁾
Circuit protection	U _V connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
Protection class	III
Weight	2.349 kg
Front screen	PMMA
Option	None

¹⁾ Without load.

²⁾ , Without load with 24 V.

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

Performance

Maximum range	7 m ¹⁾
Minimum range	≥ 0.2 m
Operating range	5 m
Response time	23.3 ms

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

Communication interface

IO-Link	✓, IO-Link V1.1
Data transmission rate	38,4 kbit/s (COM2)
Maximum cable length	20 m
Cycle time	6 ms
VendorID	26
DeviceID HEX	800067
DeviceID DEC	8388711
Process data length	6 Byte (TYPE_2_V) ¹⁾
Digital output	Q ₁ ... Q ₃
Number	3
Digital input	In ₁
Number	1

¹⁾ With an IO-Link master with V1.0, fall back to interleaved mode (consisting of TYPE_1_1 (ProcessData) and TYPE_1_2 (On-request Data)).

Ambient data

EMC	EN 60947-5-2
Ambient operating temperature	-30 °C +55 °C
Ambient storage temperature	-40 °C +70 °C
Ambient light immunity	Direct: 12,000 lx ¹⁾ Indirect: 50,000 lx ²⁾
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

¹⁾ Outdoor mode.

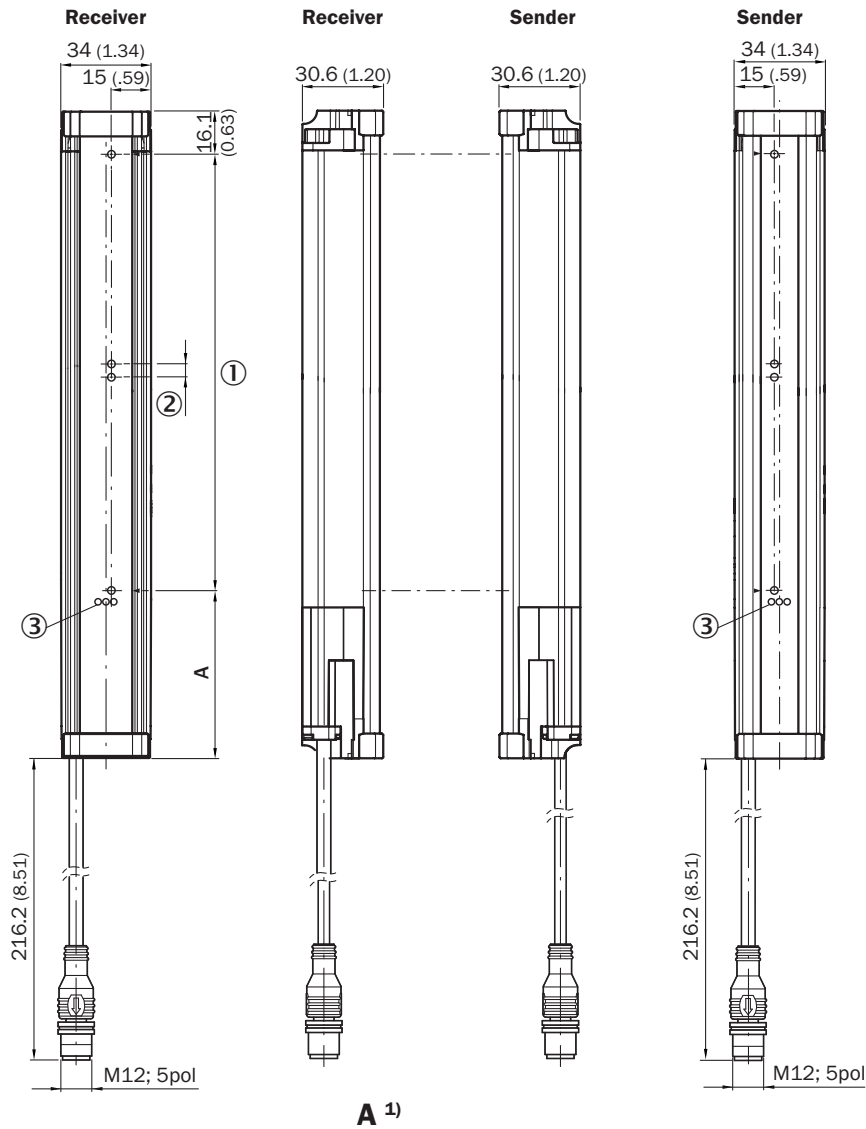
²⁾ Light resistance indirect.

Classifications

ECl@ss 5.0	27270910
ECl@ss 5.1.4	27270910
ECl@ss 6.0	27270910
ECl@ss 6.2	27270910
ECl@ss 7.0	27270910
ECl@ss 8.0	27270910
ECl@ss 8.1	27270910
ECl@ss 9.0	27270910
ECl@ss 10.0	27270910
ECl@ss 11.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
UNSPSC 16.0901	39121528

Dimensional drawing (Dimensions in mm (inch))

Dimensional drawing



Beam separation 5 mm	63.3 (2.49)
Beam separation 10 mm	68.3 (2.69)
Beam separation 20 mm	68.3 (2.69)/78.3 (3.08) ⁽²⁾
Beam separation 25 mm	83.3 (3.28)
Beam separation 30 mm	88.3 (3.48)
Beam separation 50 mm	108.3 (4.26)

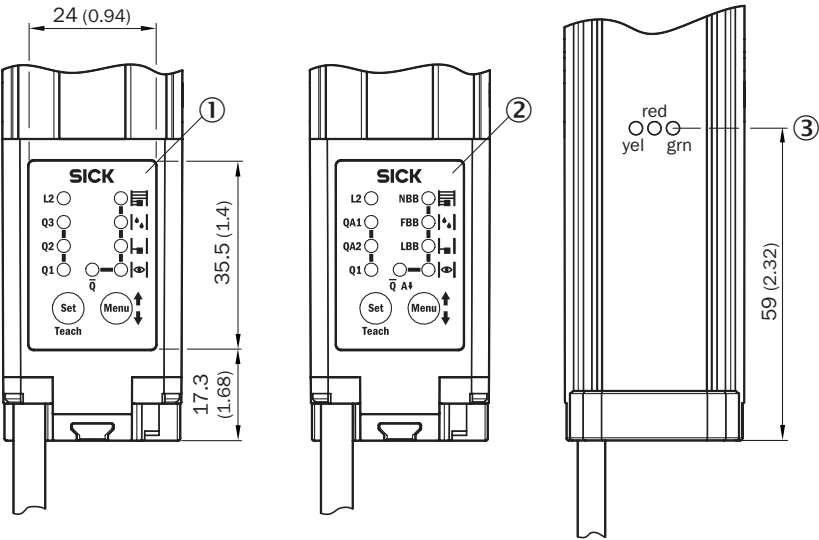
¹⁾ Distance: MLG edge - first beam

2) 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

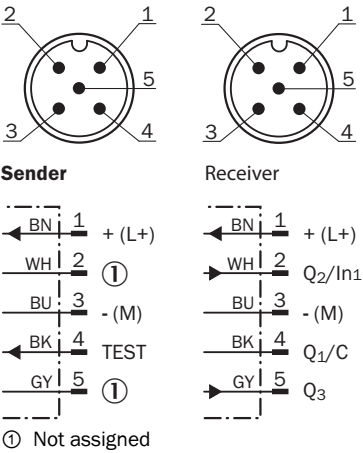
Adjustments



- ① MLG-2 with switching outputs Q
- ② MLG-2 with analog outputs Q_A
- ③ Status indicator: green, yellow, red LEDs

Connection type and diagram

Connector M12, 5-pin, switching outputs Q



Recommended accessories

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

	Brief description	Type	Part no.
SIG200			
	SIG200-0A0412200	SIG200-0A0412200	1089794
	SIG200-0A0G12200	SIG200-0A0G12200	1102605
Plug connectors and cables			
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF2A15-050VB5XLEAX	2096240

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