

MLG10S-0740D10501

MLG-2

MEASURING AUTOMATION LIGHT GRIDS





Ordering information

Туре	Part no.
MLG10S-0740D10501	1213539

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

Illustration may differ



Detailed technical data

Features

Device version	Prime - Standard functionality
Sensor principle	Sender/receiver
Minimum detectable object (MDO)	14 mm ¹⁾
Beam separation	10 mm
Type of synchronization	Optical
Number of beams	75
Detection height	740 mm
Software features (default)	
Q_1	Auto-define height classification
Q2 / IN	Auto-define height classification
Q ₃	Auto-define height classification
inverted	_
Teach	_
key lock	off
Operating mode	
Standard	✓
Function	
Cross beam	✓
Beam blanking	✓
Applications	
Switching output	Object detection

 $^{^{1\!\!/}}$ Depending on beam separation without cross beam setting.

Data interface	Object recognition Height classification Object detection Object height measurement
Included with delivery	$1\times$ sender $1\times$ receiver $4/6$ x QuickFix brackets for monitoring heights above 2 m) $1\times$ 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 19.2 V 28.8 V ¹⁾
Power consumption sender	58.75 mA ²⁾
Power consumption receiver	135 mA ²⁾
Ripple	< 5 V _{pp}
Output current I _{max.}	100 mA
Output load, capacitive	100 nF
Output load, Inductive	1H
Initialization time	<1s
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
Circuit protection	U _V connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
Protection class	III
Weight	1.749 kg
Front screen	PMMA
Option	None
UL File No.	NRKH.E181493

¹⁾ Without load.

Performance

Maximum range	7 m ¹⁾
Minimum range	≥ 0.2 m
Operating range	5 m
Response time	9.7 ms

 $^{^{1)}}$ No reserve for environmental issue and deterioration of the diode.

²⁾ Without load with 24 V.

 $^{^{\}rm 3)}$ Operating in outdoor condition only with a external protection housing.

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)
Inputs/outputs	3 x Q (IO-Link)
Digital output	$Q_1 \dots Q_3$
Number	3
Digital input	ln_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

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

¹⁾ Outdoor mode.

Smart Task

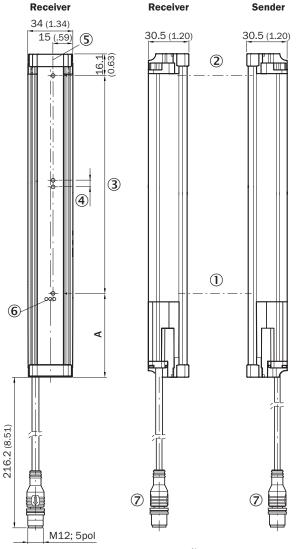
Smart Task name	Base logics
Classifications	
ECLASS 5.0	27270910
ECLASS 5.1.4	27270910
ECLASS 6.0	27270910
ECLASS 6.2	27270910
ECLASS 7.0	27270910
ECLASS 8.0	27270910
ECLASS 8.1	27270910
ECLASS 9.0	27270910
ECLASS 10.0	27270910
ECLASS 11.0	27270910
ECLASS 12.0	27270910
ETIM 5.0	EC002549

²⁾ Light resistance indirect.

ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549
UNSPSC 16.0901	39121528

Dimensional drawing (Dimensions in mm (inch))

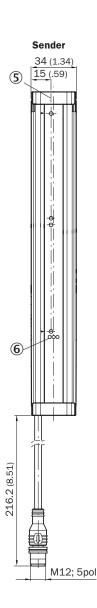
Dimensional drawing



7	7
A 1)	
63.3 (2.49)	
68.3 (2.69)	
68.3 (2.69)/78.3	3 (3.08) (2)
83.3 (3.28)	
88.3 (3.48)	
108.3 (4.26)	
	63.3 (2.49) 68.3 (2.69) 68.3 (2.69)/78.3 83.3 (3.28) 88.3 (3.48)

¹⁾ Distance: MLG edge - first beam ²⁾ MLG20x-xx**40**: 68.3 mm

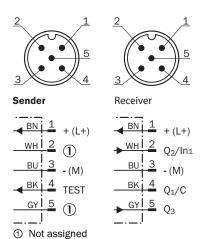
- ① First beam
- ② Last beam
- 3 Detection height (see technical data)
- ④ Beam separation
- ⑤ Optical axis
- ⑥ Status indicator: green, yellow, red LEDs
- ⑦ Connection



²⁾ MLG20x-xx**40**: 68.3 mm MLG20x-xx**80**: 78.3 mm

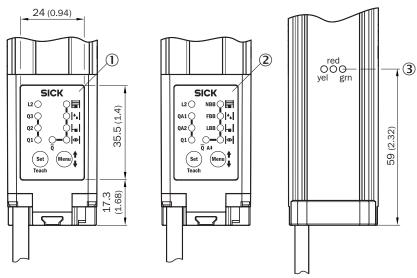
Connection type and diagram

Connector M12, 5-pin, switching outputs Q



Adjustments

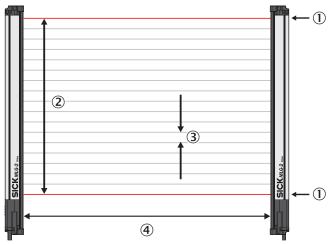
Adjustments



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

Functional principle

Optical synchronisation



The transmitter and receiver synchronize optically, so no electrical connection is required. For this reason, either the first or the last beam of the automation light grid must remain unobstructed. If both beams are interrupted, measurement is no longer possible.

- ① Optical synchronisation
- ② Detection height
- 3 Beam separation
- 4 Scanning range

Recommended accessories

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

	Brief description	Туре	Part no.		
Others					
	 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		
Sensor Integra	Sensor Integration Gateway				
GLEBENS.	 Further functions: Web server integrated, IIoT interface available (dual talk) Logic editor: no Communication interface: IO-Link, Ethernet, PROFINET, REST API, MQTT, OPC UA Product category: IO-Link Master 	SIG350-0004AP100	6076871		
	Further functions: Web server integrated, IIoT interface available (dual talk) Logic editor: no Communication interface: IO-Link, Ethernet, EtherNet/IP™, REST API, MQTT, OPC UA Product category: IO-Link Master	SIG350-0005AP100	6076923		
	Further functions: Web server integrated, IIoT interface available (dual talk) Logic editor: no Communication interface: IO-Link, Ethernet, EtherCAT®, REST API, MQTT, OPC UA Product category: IO-Link Master	SIG350-0006AP100	6076924		

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