SICK.COM

DATA SHEET

MLG05W-0700I12501

MLG-2 WebChecker
Automation light grids

SICK Sensor Intelligence

Illustration may differ

AUTOMATION LIGHT GRIDS

MLG05W-0700I12501

ORDERING INFORMATION

Type	part no.
MLG05W-0700I12501	1122951

Further device versions and accessories at 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	≥ 0.01 mm
Cycle time	32 µs per beam
Repeatability	6 µm [2]
Accuracy	± 0.3 mm [3]
Type of synchronization	Cable
Number of beams	210
Total measuring field width	1,045 mm
Measuring field width detailed	
Measuring field width (connection side)	1,045 mm
Blind zone (medium range)	0 mm
Measuring field width (head side)	0 mm
Software features (default)	
Q_1/C	Alarm, general
Q_2	Standard teach-in
Interface RS-485	System status, edge 1 ... 10, function 1 ... 5
Baud rate RS-485	115.2 kBaud
Application	Standard mode
Included with delivery	1 × sender 1 × receiver
Part number of individual components	2125619 MLGR05W-0700I10201, 2109554 MLGT05W-0700F10201

[1] See graphic: product definition.

[2] 1 Sigma, 0% object transmission (internal sensor value).

[3] Typically 0.1 mm. 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	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
Dimensions (W x H x D)	34 mm x 1,129.4 mm x 30.6 mm
Connection type	Plug, M12, 5-pin, 0.22 m Male connector M12, 8-pin, 0.27 m M12 female connector, 4-pin, D-coded, 0.19 m
Housing material	Aluminum
Display	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	2.359 kg
Front screen	PMMA
Option	None
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	42.6 ms [2]

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

[2] With resistive load.

INTERFACES

IO-Link		✓ , IO-Link V1.1
	Data transmission rate	230,4 kbit/s (COM3)
	Maximum cable length	20 m
	Cycle time	3 ms
	VendorID	26
	DeviceID HEX	80022F
	DeviceID DEC	8389167

[1] For an IO-Link master with V1.0, reverts to interleaved mode (consisting of TYPE_1_1 (ProcessData) and TYPE_1_2 (on-request data)).

Process data length	32 Byte (TYPE_2_V) [1]
Serial	✓ , RS-485
Data transmission rate	1.2 kbit/s ...921.6 kbit/s
Inputs/outputs	RS-485 + 2 x Q (IO-Link)
Digital output	Q_1, Q_2
Number	2
Digital input	Q_2
Number	1

[1] For an IO-Link master with V1.0, reverts 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
Ambient light immunity	100,000 lx
Ambient operating temperature	–30 °C ... +55 °C
Ambient temperature, storage	–40 °C ... +70 °C

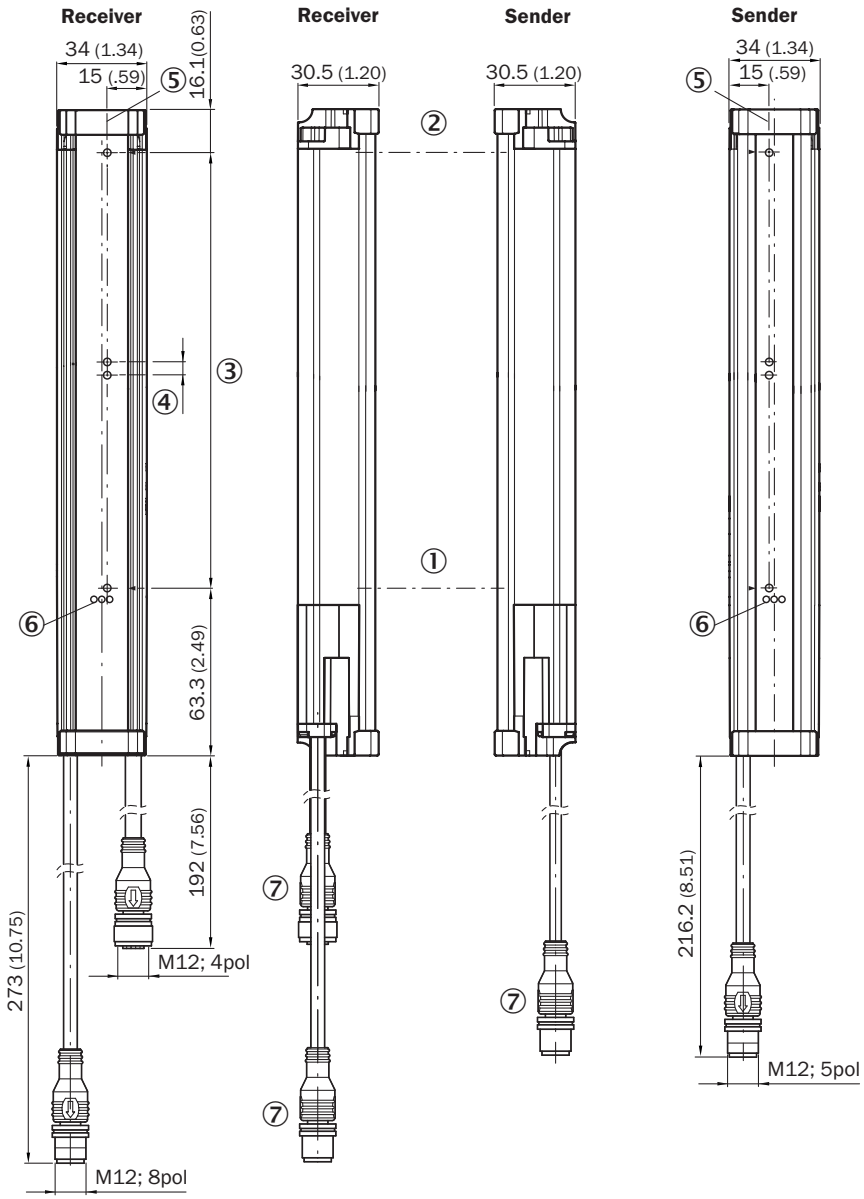
SMART TASK

Smart Task name	Base logics

CERTIFICATES

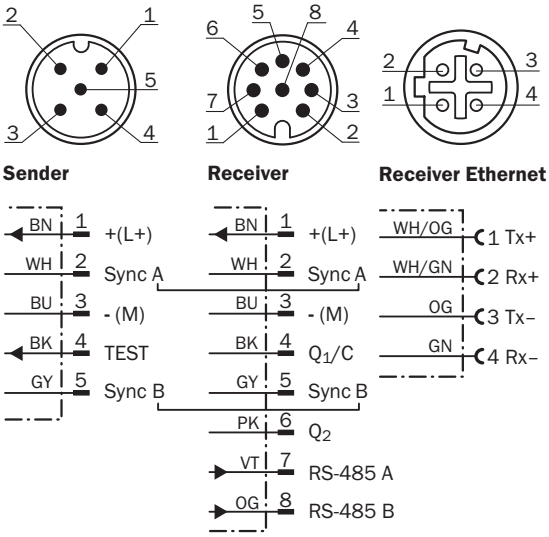
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
cULus certificate	✓
IO-Link certificate	✓
Photobiological safety (IEC EN 62471)	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

DIMENSIONAL DRAWING

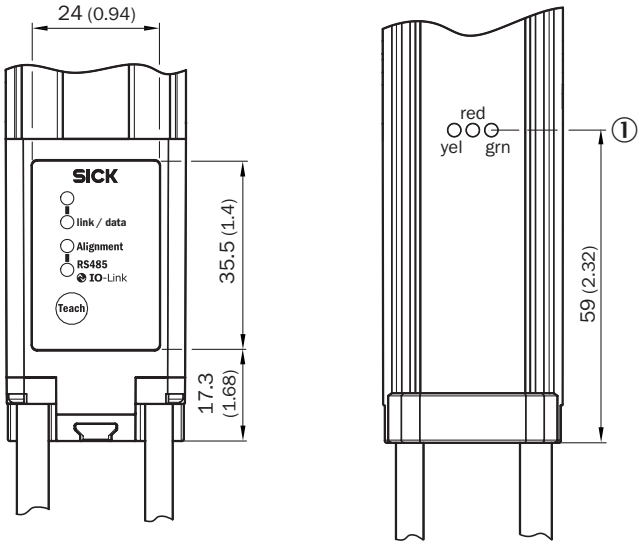


Dimensions in mm (inch)
① First beam
② last beam
③ total measuring field width (see technical data)
④ Beam separation
⑤ Optical axis
⑥ status indicator: green, yellow, red LEDs
⑦ Connection

CONNECTION TYPE AND DIAGRAM MLG-2 WEBCHECKER

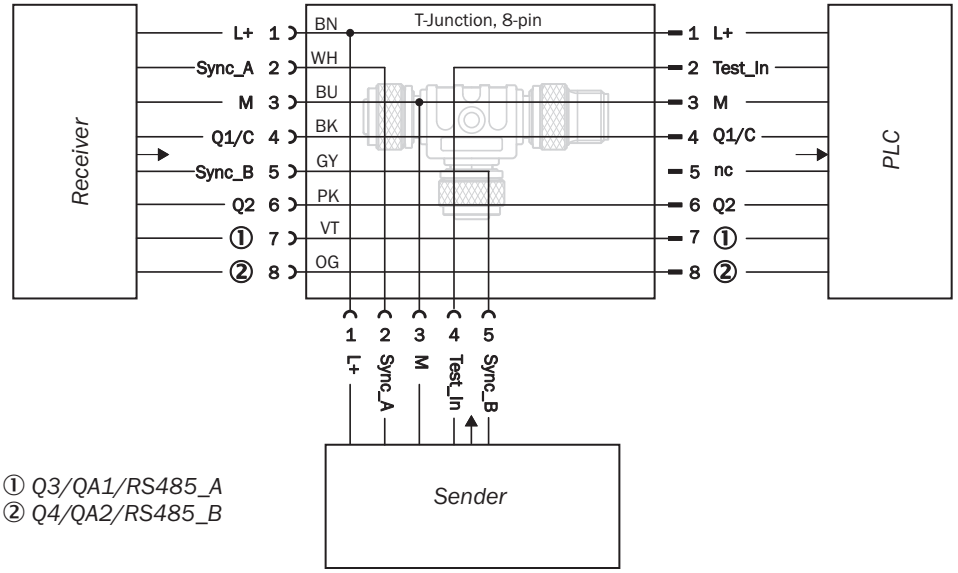


ADJUSTMENTS



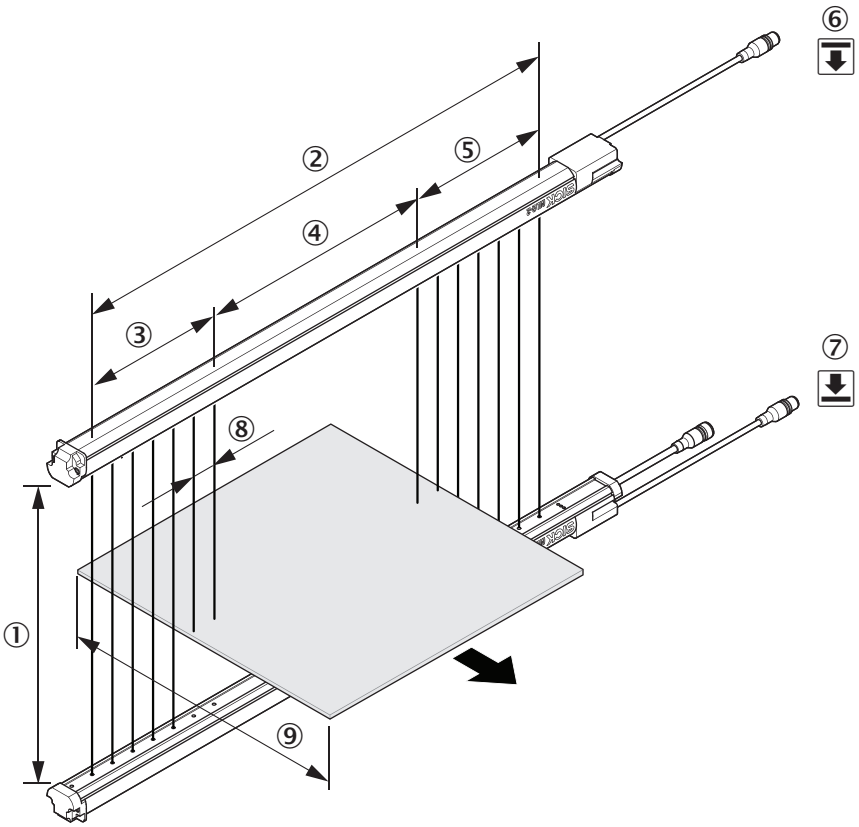
① status indicator: green, yellow, red LEDs

CONNECTION DIAGRAM T-PIECE



① *Q3/QA1/RS485_A*
② *Q4/QA2/RS485_B*

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

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/1122951

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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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