Online data sheet

MLG5-1900F511

MLG

MEASURING AUTOMATION LIGHT GRIDS

SICK
Sensor Intelligence.

Ordering information

Type	Part no.
MLG5-1900F511	1029193

Other models and accessories → www.sick.de/MLG

Detailed technical data

Features

Technology	Sender/receiver
Minimum detectable object (MDO)	Parallel beam, 55 mm [1]
Beam separation	50 mm
Number of beams	≥ 39
Detection height	1,900 mm
Configuration	Standard (switching)

[1] MDO min. detectable object.

Performance

Maximum range	7 m [1]
Minimum range	Parallel beam: ≥ 0 mm
Working range	5 m
Response time	Parallel beam ≥ 6.85 ms [2]

[1] No reserve for environmental issue and deterioration of the diode.
[2] With resistive load.

Interfaces

Switching output	1 x PNP
Connection type	Male connector M12, 5-pin
Fieldbus, industrial network	-
Type of fieldbus integration	-

Mechanics/electronics

Wave length	Infrared light, 880 nm
Supply voltage V_s	DC 18 V ... 30 V [1]

[1] Without load.
[2] Without load with 24 V.
[3] Typical value.

Power consumption sender	≥ 218 mA [2]
Power consumption receiver	≥ 217 mA [2]
Ripple	< 5 V_{pp}
Output current $I_{max.}$	≤ 100 mA [3]
Output load capacitive	100 nF
Output load inductive	1 H
Initialization time	1 s
Dimensions (W x H x D)	34 mm x 2,014 mm x 29 mm
Housing material	Aluminum
Indication	7-segment display, 7-segment display
Synchronization	Cable
Enclosure rating	IP 65
Circuit protection	U_V connections, reverse polarity protected, Output Q short-circuit protected, Interference pulse suppression
Weight	≥ 4.87 kg
Front screen	PMMA

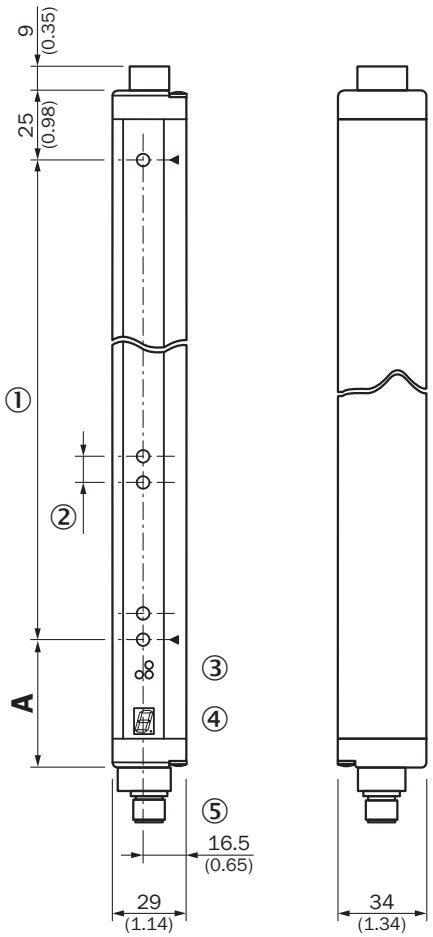
[1] Without load.
[2] Without load with 24 V.
[3] Typical value.

Ambient data

Protection class	III
EMC	EN 60947-5-2
Ambient temperature	Operation: –25 °C ... +55 °C Storage: –40 °C ... +70 °C
Ambient light immunity	Direct: 12,500 lx [1] Indirect: 50,000 lx [1]
Vibration resistance	5 g, 10 Hz ... 55 Hz (IEC 68-2-6)
Shock load	10 g / IEC 68-2-29 / 16 ms

[1] Sunlight.

Dimensional drawing (Dimensions in mm (inch))



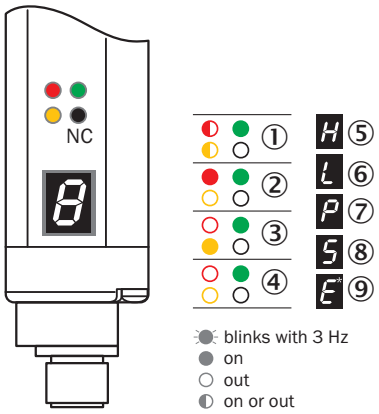
	A Distance: MLG edge – first beam
Beam separation 10 mm	49 (1.93)
Beam separation 20 mm	49 (1.93) [1] / 59 (2.32) [2]
Beam separation 30 mm	69 (2.72)
Beam separation 50 mm	89 (3.50)

[1] With even number of beams.
[2] With odd number of beams.

① Detection height (see optical performance)
② Beam separation (10, 20, 30, 50 mm)
③ Status indicator: green, yellow, red LEDs
④ Indicator panel, 7-segment display
⑤ Male connector M12, 5-pin

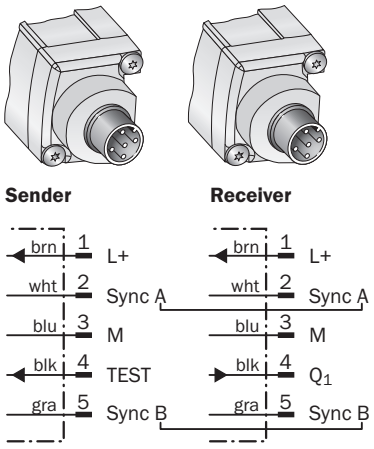
Adjustments

LED indicator



① Supply voltage
② Device error
③ No object in the light path
④ Contamination control
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

Connection type and diagram



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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.”

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