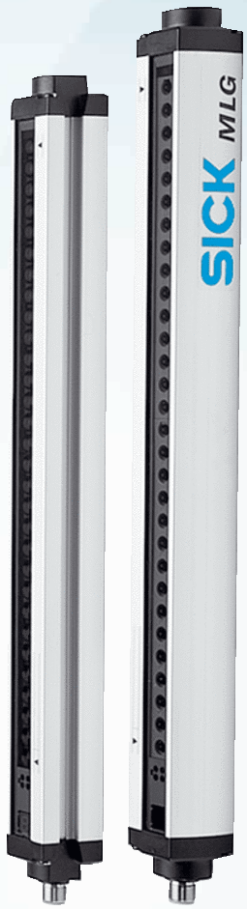
Online data sheet



MLG5-2050F513

MLG

MEASURING AUTOMATION LIGHT GRIDS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
MLG5-2050F513	1022653

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

Detailed technical data

Features

Technology	Sender/receiver
Minimum detectable object (MDO)	Cross beam, 30 mm
Beam separation	50 mm
Number of beams	≥ 42
Detection height	2,050 mm
Configuration	Triple cross beam

Performance

Maximum range	7 m [1]
Minimum range	Cross beam: ≥ 840 mm
Working range	5 m
Response time	Cross beam ≥ 21.9 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]
Power consumption sender	≥ 224 mA [2]

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

Power consumption receiver	≥ 226 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 2,164 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	≥ 5.215 kg
Front screen	PMMA

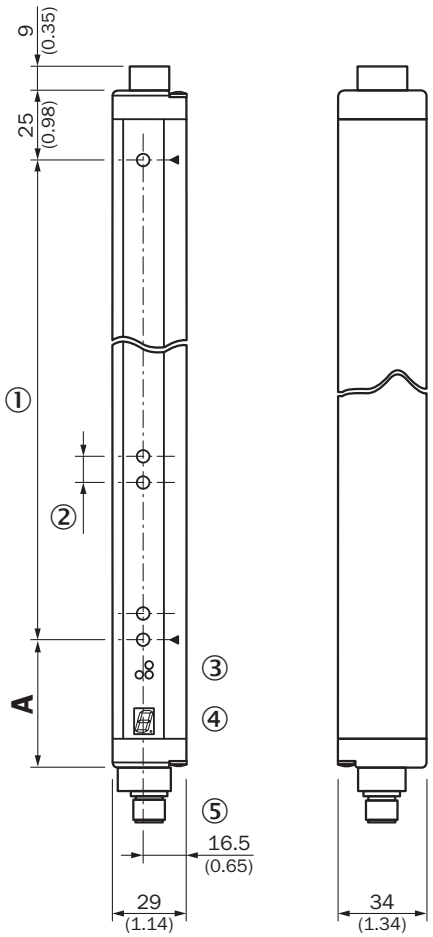
[1] Without load.
[2] Without load with 24 V.
[3] Typical value.

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

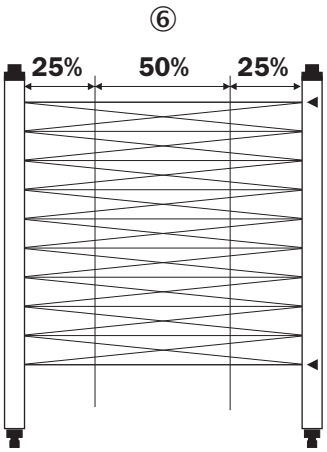
[1] Sunlight.

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)

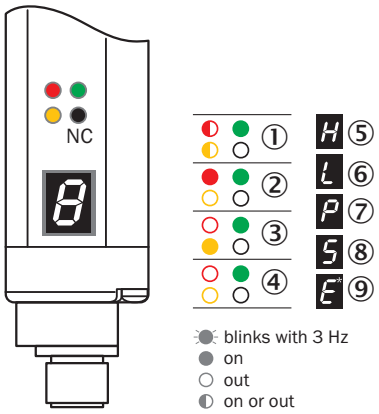
[1] With even number of beams.
[2] With odd number of beams.



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
⑥ Kreuzstrahl*

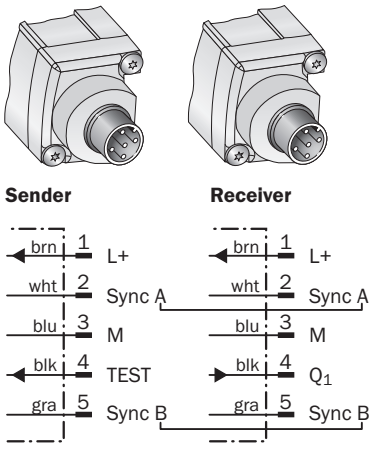
Adjustments

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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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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