

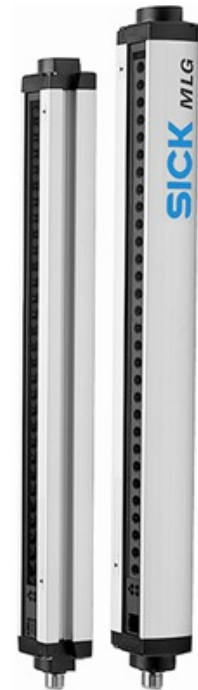


Advanced automation light grids MLG, MLG Standard

MLG1-2090F821



Model Name > [MLG1-2090F821](#)
Part No. > [1044505](#)



At a glance

- Up to 3 x PNP or NPN switching outputs
- Resolutions of 10 / 20 / 30 / 50 mm and customer-specific resolutions
- Working range up to 8.5 m
- Detection heights of over 3 m and up to 240 beams possible
- Short response time
- Automatic teach during power on

Your benefits

- Easy-to-see status information helps avoid interrupting operation, saves costs
- Different beam separation options, detection heights and output configurations ensure a reliable solution
- Integrated interfaces reduce cabling time and costs
- A fully modular system guarantees the optimal solution for the customer



Features

Technology:	Sender/receiver
Task:	Measurement light grid
Minimum detectable object (MDO) ¹⁾ :	Parallel beam: ≥20 mm
Beam separation:	10 mm
Number of beams:	210
Detection height:	2,090 mm
Configuration:	Standard (switching)

¹⁾ MDO min. detectable object

Performance

Maximum range ¹⁾ :	12 m
Minimum range:	Parallel beam: ≥0 mm
Response time ²⁾ :	Parallel beam: ≥32.5 ms
Working range ³⁾ :	8.5 m

¹⁾ No reserve for environmental issue and deterioration of the diode ²⁾ With resistive load ³⁾ Aperture ± 3°

Interfaces

Output type:	3 x PNP
Inputs:	1 x PNP

Connection type: Connector M12, 8-pin
IO-Link: 0

Mechanics/electronics

Wave length: IR 880 nm
Supply voltage V_s ¹⁾: DC 18 V ... 30 V
Power consumption sender ²⁾: 560 mA
Power consumption receiver ³⁾: 730 mA
Ripple: < 5 Vpp
Output current $I_{max.}$: 100 mA
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, LED
Synchronization: Cable
Enclosure rating: IP 65
Circuit protection: Output Q short-circuit protected, Interference suppression, VS connections reverse-polarity protected
Weight: 5.307 kg
Power consumption: 560 mA ⁴⁾
Front screen: PMMA

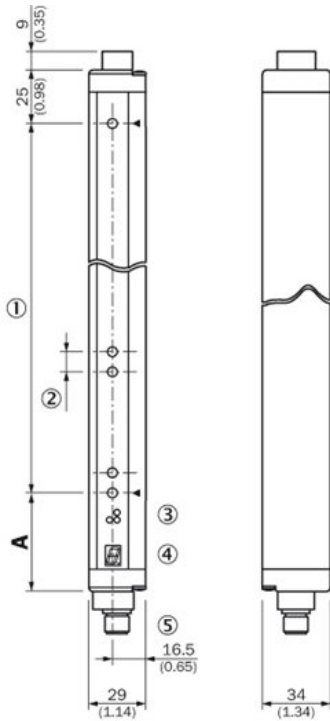
¹⁾ Without load ^{2) 3) 4)} Without load with 24 V

Ambient data

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

^{1) 2)} Sunlight

Dimensional drawing



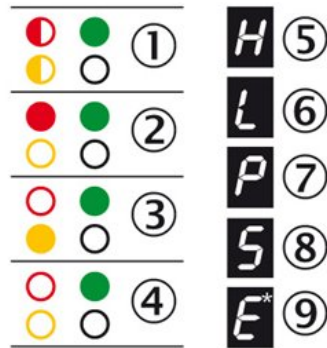
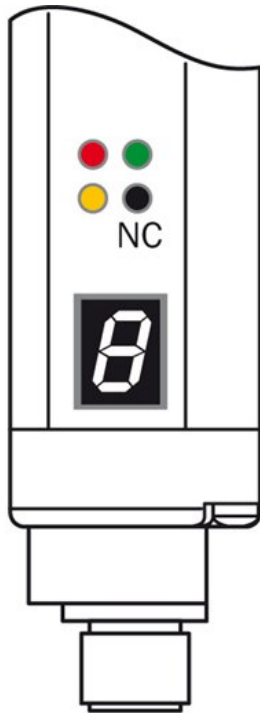
A
Distance: MLG edge - first beam

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: LEDs green, yellow, red
- |4| Indicator panel, 7-segment display
- |5| Connector M12, 5-pin

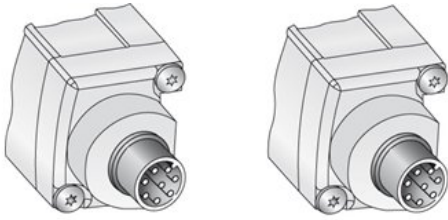
Adjustments receiver



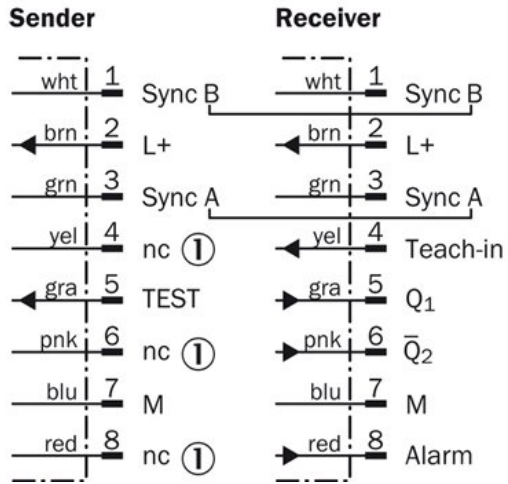
- ☉ blinks with 3 Hz
- on
- out
- ◐ on or out

- |1| Supply voltage
- |2| Device error
- |3| No object in the light path
- |4| Pollution indication
- |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

Anschlussart und -schema



[1] not connected



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