

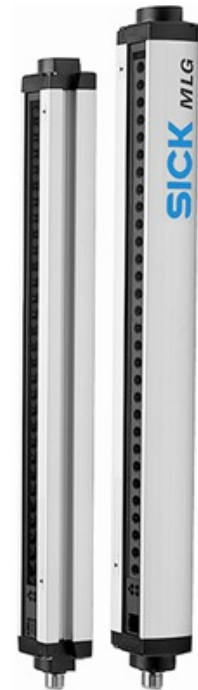


Advanced automation light grids MLG, MLG Standard

MLG5-1900F51L



Model Name > [MLG5-1900F51L](#)
Part No. > [1023629](#)



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⁾ :	Multiple scan: ≥30 mm
Beam separation:	50 mm
Number of beams:	39
Detection height:	1,900 mm
Configuration:	3-times cross beam and Q inv.

¹⁾ MDO min. detectable object

Performance

Maximum range ¹⁾ :	7 m
Minimum range:	Multiple scan: ≥840 mm
Response time ²⁾ :	Multiple scan: ≥20.55 ms
Working range ³⁾ :	5 m

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

Interfaces

Output type:	1 x PNP
Connection type:	Connector M12, 5-pin

IO-Link: 0

Mechanics/electronics

Wave length:	IR 880 nm
Supply voltage Vs ¹⁾ :	DC 18 V ... 30 V
Power consumption sender ²⁾ :	218 mA
Power consumption receiver ³⁾ :	217 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 2,014 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:	4.87 kg
Power consumption:	218 mA ⁴⁾
Front screen:	PMMA

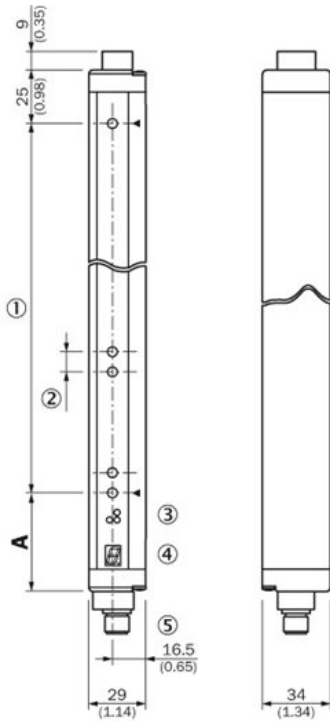
¹⁾ Without load ^{2) 3) 4)} Without load with 24 V

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: ≥12,500 lx, Indirect: ≥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

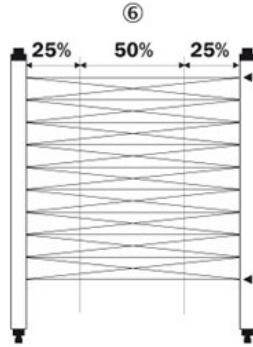
Dimensional drawing



A
Distance: MLG edge - first beam

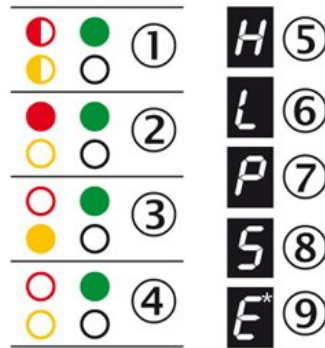
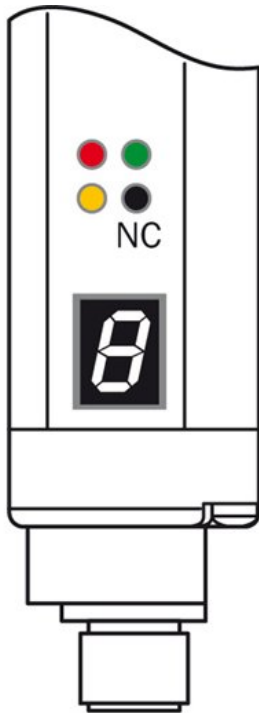
Beam separation 10 mm	49 (1.93)
Beam separation 20 mm	49 (1.93) ¹⁾ / 59 (2.32) ²⁾
Beam separation 30 mm	69 (2.72)
Beam separation 50 mm	89 (3.50)

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
- [6] Cross beam function

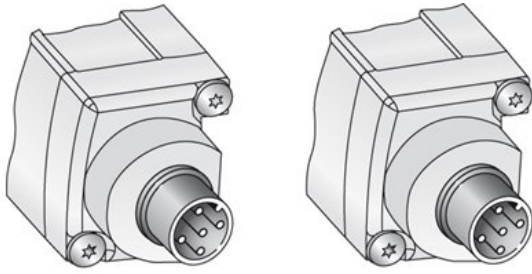
Adjustments receiver



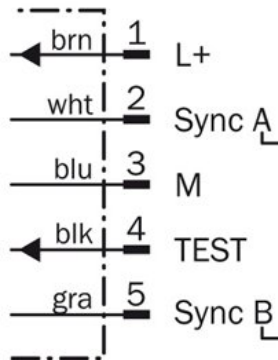
- ☉ blinks with 3 Hz
- on
- out
- ◐ on or out

- [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

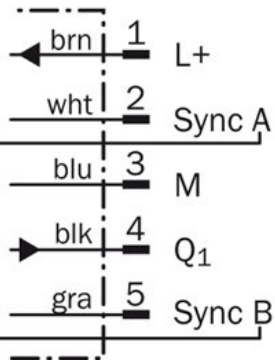
Connection type and diagram



Sender



Receiver



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