



Advanced automation light grids MLG, MLG CANopen, CANopen

MLG1-2090C811



Model Name > [MLG1-2090C811](#)
Part No. > [1056339](#)



At a glance

- Integrated CANopen interface
- 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 of
- Teach algorithm for optimal sensitivity settings in difficult applications

Your benefits

- The CANopen software is 2.0 CIA/DS-301 for easy integration in the control system
- Low cabling requirement reduces installation costs
- Easy-to-see light grid status information via the bus system helps avoid interrupting operation
- Different beam separation options, detection heights and output configurations ensure a reliable solution
- Robust metal housing stands up to tough environments and reduces downtime



Features

Technology:	Sender/receiver
Task:	Measurement light grid
Minimum detectable object (MDO):	Parallel beam: ≥ 15 mm
Beam separation:	10 mm
Number of beams:	210
Detection height:	2,090 mm
Configuration:	ESD file

Performance

Maximum range ¹⁾ :	7 m
Minimum range:	Parallel beam: ≥ 0 mm
Response time ²⁾ :	Parallel beam: ≥ 32.5 ms
Working range:	5 m

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

Interfaces

Output type:	1 x PNP
Inputs:	1 x PNP

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

Mechanics/electronics

Wave length:	IR 880 nm
Supply voltage Vs:	DC 18 V ... 30 V
Power consumption sender ¹⁾ :	560 mA
Power consumption receiver ²⁾ :	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 ³⁾
Front screen:	PMMA

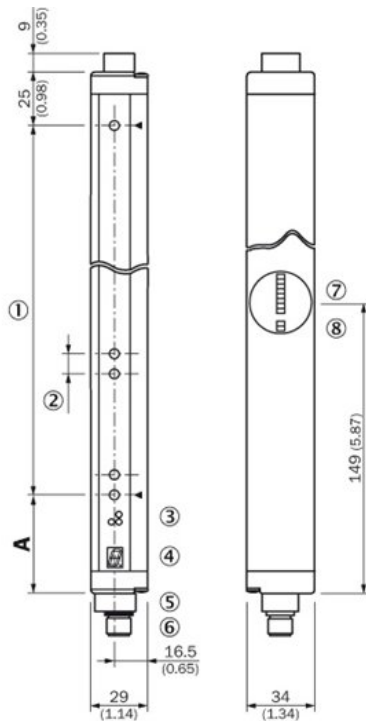
1) 2) 3) Without load with 24 V

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

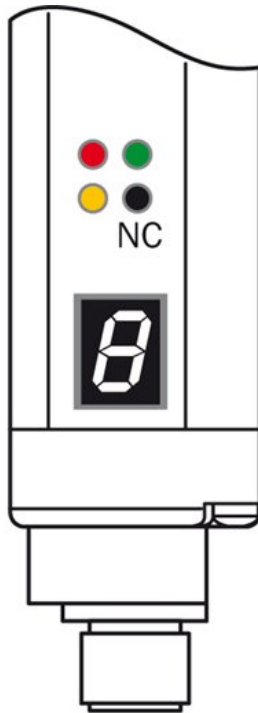


A	
Distance: MLG edge - first beam	
Beam separation 10 mm	49 (1.93)
Beam separation 20 mm	49 (1.93) ¹⁾ / 59 (2.32) ²⁾
Beam separation 30 mm	69 (2.72)
Beam separation 50 mm	89 (3.50)

¹⁾ With even number of beams.
²⁾ With odd number of beams.

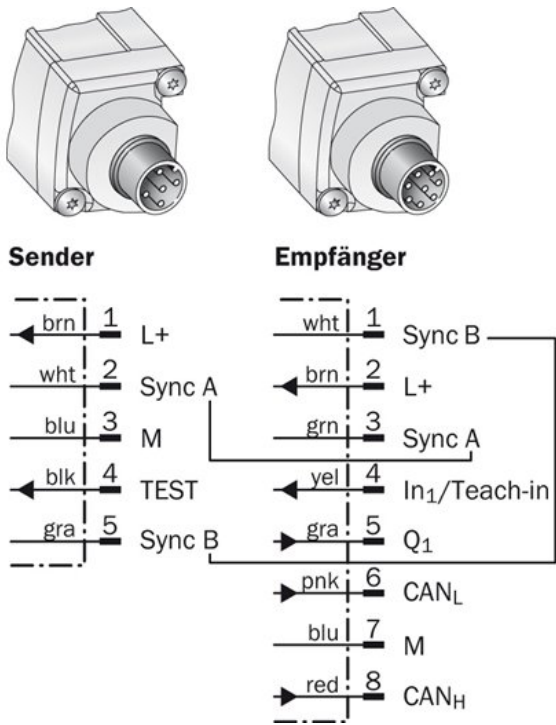
- |1| Detection height (see optical performance)
- |2| Beam separation (10, 20, 30, 50 mm)
- |3| Status indicator: LEDs green, yellow, red
- |4| Indicator panel, 7-segment display
- |5| Ground
- |6| Connector M12, 8-pin (for CANopen adapter)
- |7| Address setting
- |8| Sensitivity baud rate

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



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