



Measuring automation light grids CANopen , MLG, MLG CANopen

MLG1-2390C821



Model Name > [MLG1-2390C821](#)
Part No. > [1055171](#)



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
- East-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, 20 mm
Beam separation:	10 mm
Number of beams:	240
Detection height:	2,390 mm
Configuration:	ESD file

Performance

Maximum range ¹⁾ :	12 m
Minimum range:	Parallel beam: ≥0 mm
Response time ²⁾ :	Parallel beam 37 ms
Working range:	8.5 m

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

Interfaces

Data interface:	CANopen
Output type:	1 x PNP

Inputs: 1 x PNP
Connection type: Male connector M12, 8-pin
IO-Link: -

Mechanics/electronics

Wave length: Infrared light 880 nm
Supply voltage V_s ¹⁾: DC 18 V ... 30 V
Power consumption sender²⁾: 620 mA
Power consumption receiver³⁾: 820 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 2,464 mm x 29 mm
Housing material: Aluminum
Indication: 7-segment display
Enclosure rating: IP 65
Circuit protection: Output Q short-circuit protected, Interference suppression, VS connections reverse-polarity protected
Weight: 5.997 kg
Front screen: PMMA
Synchronization: Cable

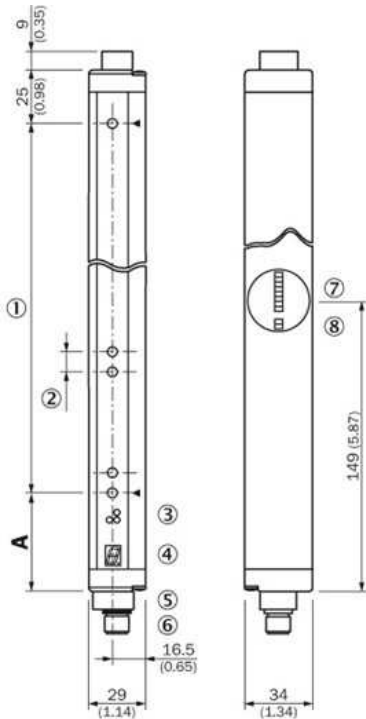
¹⁾ Without load ^{2) 3)} Without load with 24 V

Ambient data

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

^{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

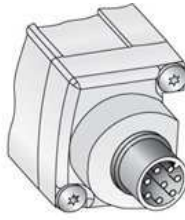
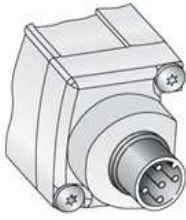
Adjustments receiver



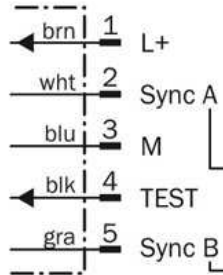
- ☉ blinks with 3 Hz
- on
- out
- ◐ on or out

- |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

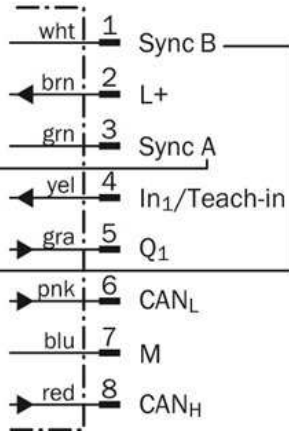
Connection type and diagram



Sender



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