ONLINE DATA SHEET
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Advanced automation light grids
MLG, MLG Programmable, RS485

MLG1-2090I812

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Model Name > MLG1-2090I812
Part No. > 1048009

At a glance

- 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
- External teach-in for optimal sensitivity settings
- Easy-to-use setup software for customized application

Your benefits

- Intelligent evaluation software saves costs by quickly and easily turning a standard sensor into a custom problem solver, reducing the number of sensors, PLCs and programming required
- Easy-to-see status information helps avoid interrupting operation
- Different beam separation options, detection heights and output configurations ensure a reliable solution
- 6 discrete outputs for custom solutions
- Robust metal housing stands up to tough environments and reduces downtime

Features

Technology:	Sender/receiver
Task:	Measurement light grid
Minimum detectable object (MDO) [1]:	Parallel beam: ≥15 mm
Beam separation:	10 mm
Number of beams:	210
Detection height:	2,090 mm
Configuration:	Parameterization interface (measuring)

[1] MDO min. detectable object

Performance

Maximum range [1]:	7 m
Minimum range:	Parallel beam: ≥0 mm
Response time [2]:	Parallel beam: ≥32.5 ms
Working range [3]:	5 m

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

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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 [1]:	DC 18 V ... 30 V
Power consumption sender [2]:	560 mA
Power consumption receiver [3]:	730 mA
Ripple:	< 5 Vpp
Output current Imax.:	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: ≥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

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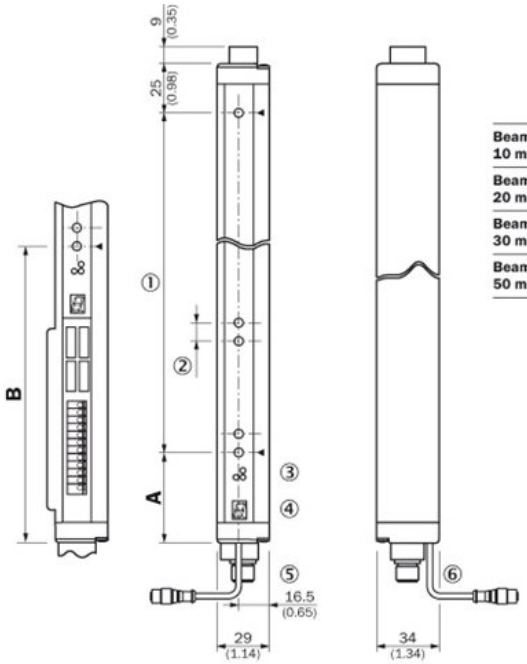
Dimensional drawing

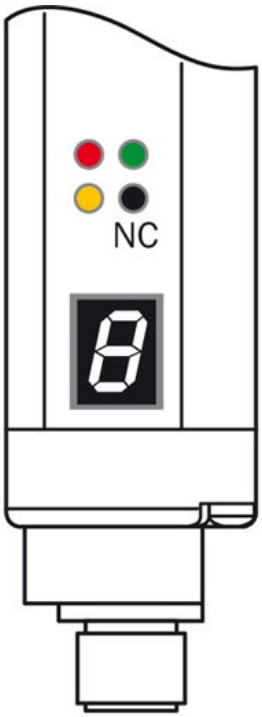


	A Distance: MLG edge – first beam	B
Beam separation MLG1 **10 mm**	49 (1.93)	160 (6.30)
Beam separation MLG2 **20 mm**	49 (1.93) [1] 59 (2.32) [2]	170 (6.69)
Beam separation MLG3 **30 mm**	69 (2.72)	180 (7.09)
Beam separation MLG5 **50 mm**	89 (3.50)	200 (7.87)

[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| Terminals: M16 cable entry/connector M12, 12-pin
|6| Configuration connector M8, 4-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

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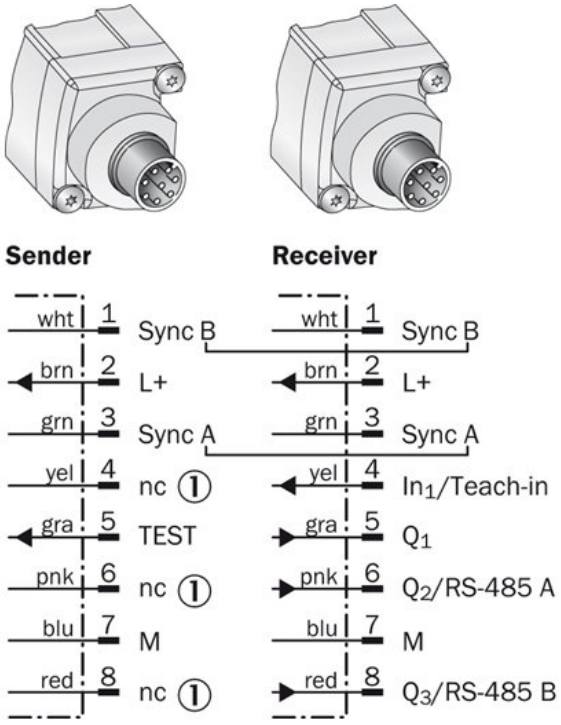
Connection type and diagram



|1| not connected

· USmod 4c int40

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