



Measuring automation light grids MLG, MLG Analog Output

MLG1-0290A812



Model Name > [MLG1-0290A812](#)
Part No. > [1053489](#)



At a glance

- Two analog outputs: voltage to current
- 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, such as measuring translucent objects
- Easy-to-use setup software for customized applications with new features
- Software tools, such as height measurement, zoning, hole detection, and presence control make implementation of complex solutions achievable

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
- Integrated analog outputs reduce integration costs for measuring applications, because no additional software is necessary
- Discrete outputs for custom solutions without a PLC
- Tough metal housing stands up to harsh 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:	30
Detection height:	290 mm
Configuration:	Parameterization interface (measuring)

Performance

Maximum range ¹⁾ :	7 m
Minimum range:	Parallel beam: ≥0 mm
Response time ²⁾ :	Parallel beam 5.5 ms
Working range:	5 m

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

Interfaces

Output type:	2 x Analog 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 sender ²⁾ :	200 mA
Power consumption receiver ³⁾ :	190 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 364 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:	1.167 kg
Front screen:	PMMA
Synchronization:	Cable

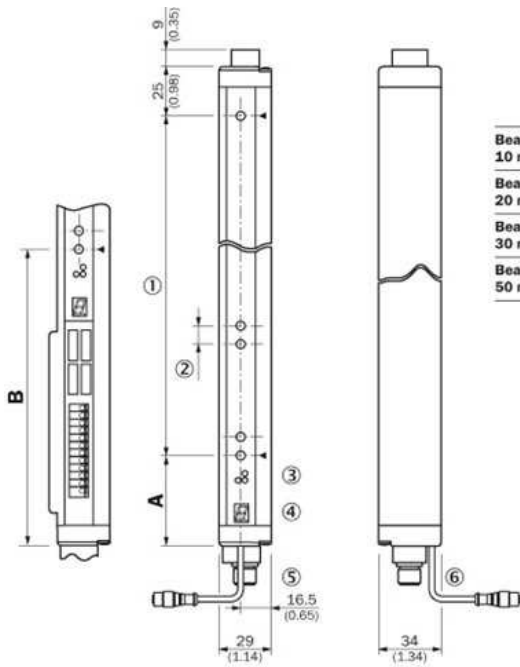
1) Without load ^{2) 3)} Without load with 24 V

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

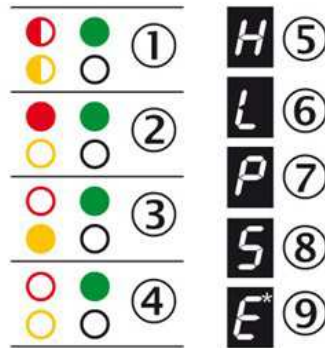
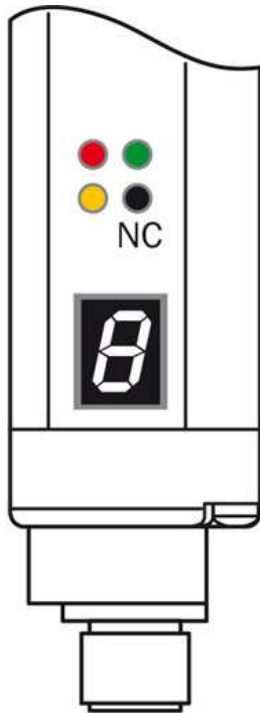


	A	B
	Distance: MLG edge - first beam	
Beam separation MLG1 10 mm	49 (1.93)	160 (6.30)
Beam separation MLG2 20 mm	49 (1.93) ¹⁾	170 (6.69)
Beam separation MLG3 30 mm	69 (2.72)	180 (7.09)
Beam separation MLG5 50 mm	89 (3.50)	200 (7.87)

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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