



Advanced automation light grids MLG, MLG Programmable

MLG1-1790F212



Model Name > **MLG1-1790F212**
Part No. > **1027556**



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:	180
Detection height:	1,790 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: ≥ 28 ms
Working range ³⁾ :	5 m

¹⁾ No reserve for environmental issue and deterioration of the diode ²⁾ With resistive load ³⁾ Aperture $\pm 3^\circ$

Interfaces

Output type:	6 x PNP
Inputs:	2 x PNP
Connection type:	Terminals
IO-Link:	0

Mechanics/electronics

Wave length:	IR 880 nm
Supply voltage V_s ¹⁾ :	DC 18 V ... 30 V
Power consumption sender ²⁾ :	500 mA
Power consumption receiver ³⁾ :	640 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 1,975 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:	4.617 kg
Power consumption:	500 mA ⁴⁾
Front screen:	PMMA

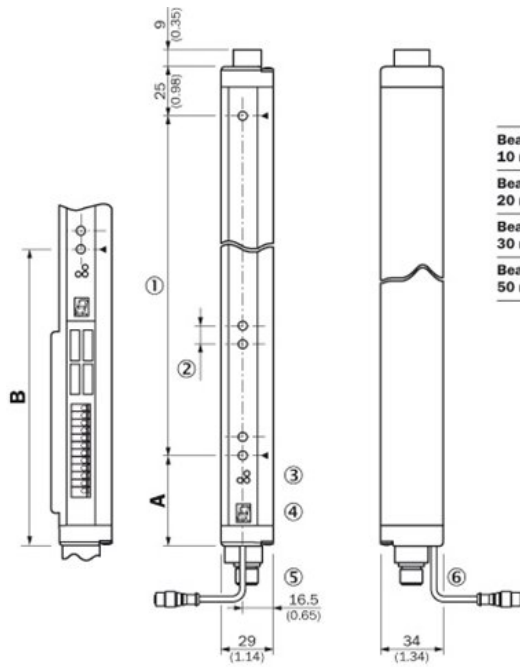
¹⁾ Without load ²⁾ ³⁾ ⁴⁾ Without load with 24 V

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

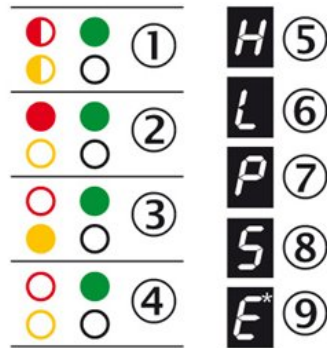
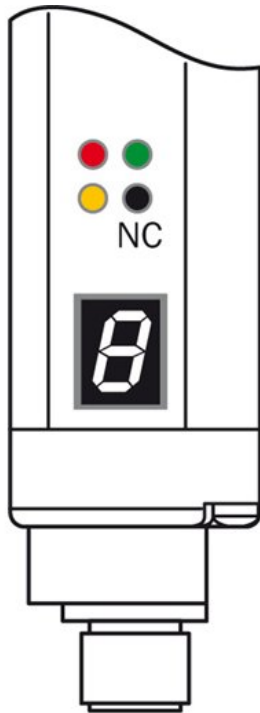


	A	B
Distance: MLG edge - first beam		
Beam separation MLG1 10 mm	49 (1.93)	160 (6.30)
Beam separation MLG2 20 mm	49 (1.93) ¹⁾	170 (6.69)
Beam separation MLG3 30 mm	59 (2.32) ²⁾	180 (7.09)
Beam separation MLG5 50 mm	89 (3.50)	200 (7.87)

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

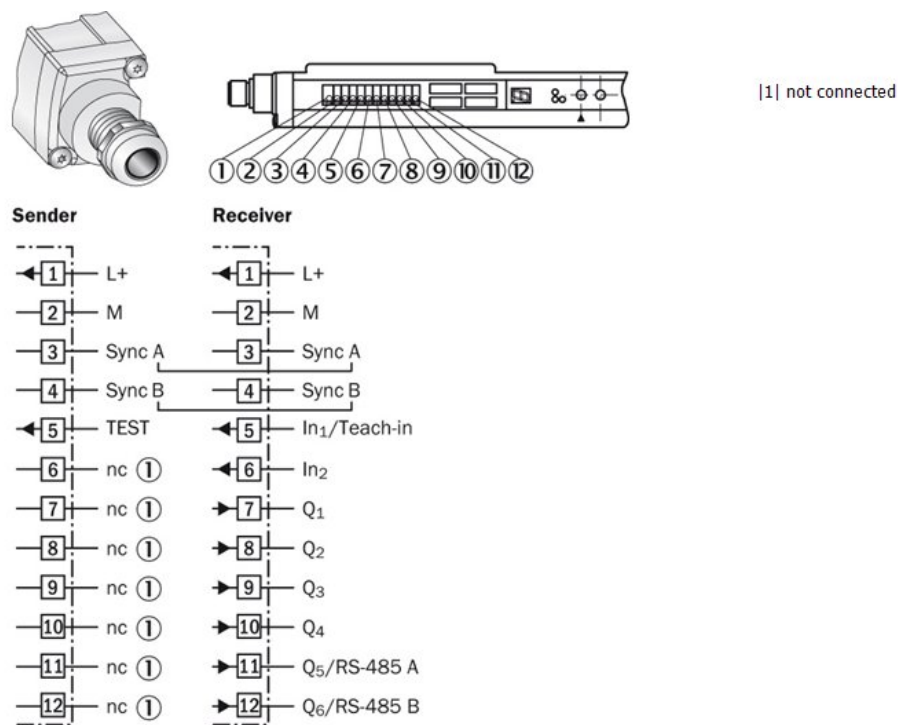
Adjustments receiver



- ☼ 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

Connection type and diagram



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