



## Switching automation light grids HLG

HLG2-050F811



**Model Name** > [HLG2-050F811](#)  
**Part No.** > [1029853](#)



#### At a glance

- 2 mm resolution
- Response time 3 ms
- Detection height 50 mm
- Cable synchronization
- PNP or NPN with both Q and Qnot outputs (NO/NC)
- 1 x test, 1 x teach-in input
- Connector M12, 8-pin

#### Your benefits

- Reliable object detection throughout the entire working range ensures consistent and reliable operation
- High availability thanks to its ability to detect very flat objects
- The HLG's short response time allows the use of higher conveyor speeds directly leading to higher throughput
- Cable synchronization provides more reliable use and higher machine uptime
- Highest measurement resolution provides smallest minimum detectable object size, for exact counting and true leading edge detection of conveyed objects, for more machine control and increased throughput



#### Features

Technology:	Sender/receiver
Task:	Switching light grid
Minimum detectable object (MDO):	Parallel beam, 2 mm
Beam separation:	2 mm
Number of beams:	26
Detection height:	50 mm

#### Performance

Maximum range:	2 m
Minimum range:	≥0 mm
Working range:	1.5 m
Response time <sup>1)</sup> :	Parallel beam: 3 ms

<sup>1)</sup> With resistive load

#### Interfaces

Output type: 2 x PNP (Q and /Q)  
Connection type: Male connector M12, 8-pin

### Mechanics/electronics

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Wave length: 950 nm  
Supply voltage  $V_s$  <sup>1)</sup>: DC 15 V ... 30 V  
Power consumption sender <sup>2)</sup>: < 100 mA  
Power consumption receiver <sup>3)</sup>: > 100 mA  
Ripple: < 5 Vpp  
Output current  $I_{max.}$ : 100 mA  
Output load capacitive: 100 nF  
Output load inductive: 1 H  
Initialization time: 0.8 s  
Dimensions (W x H x D): 34 mm x 123 mm x 29 mm  
Housing material: Aluminum  
Indication: LED  
Synchronization: Cable  
Enclosure rating: IP 54  
Circuit protection: Output Q short-circuit protected  
Interference suppression  
VS connections reverse-polarity protected  
  
Weight: 135 g  
Front screen: PMMA  
Output mode <sup>4)</sup>: Q dark switching  
Teach input: PNP

1) 2) 3) Typical value 4) Q = active in case one beam is interrupted, /Q = active in case all beam are free

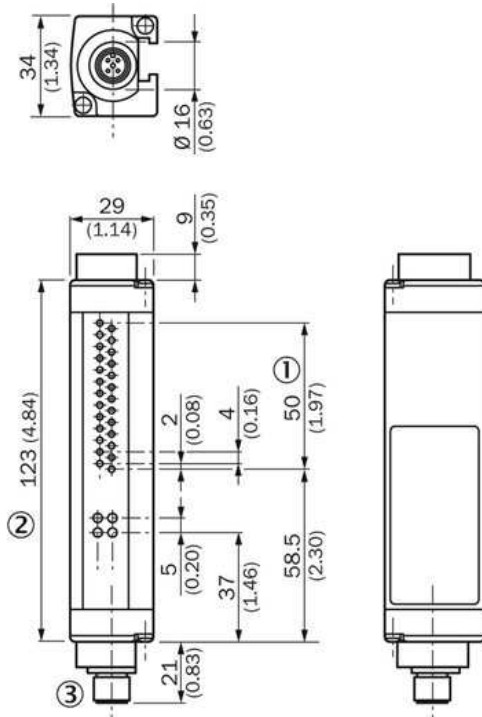
### Ambient data

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Protection class: III  
EMC: EN 60947-5-2  
Ambient temperature: Operation: -25 ... +55 °C  
Storage: -40 ... +70 °C  
Ambient light safety <sup>1)</sup>: Indirect: ≤ 50,000 lx  
Vibration resistance: 5 g, 10 Hz ... 55 Hz (IEC 68-2-6)  
Shock load: 10 g/DIN EN 60068-2-29/16 ms

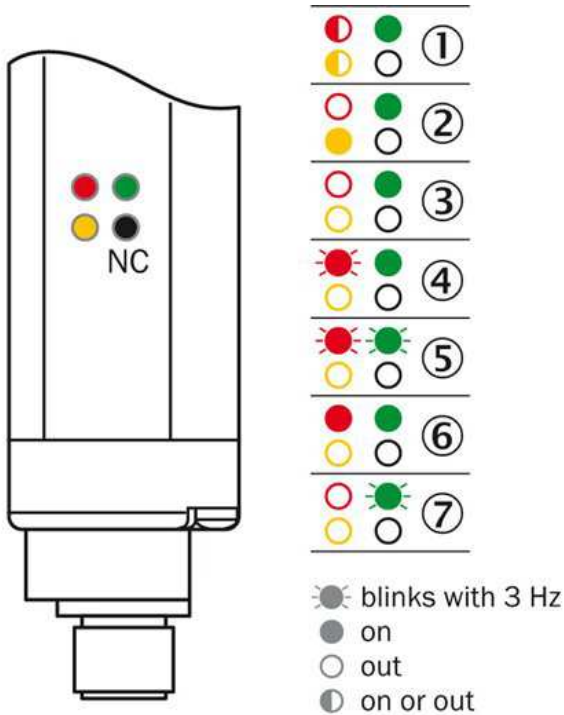
<sup>1)</sup> Sunlight

## Dimensional drawing



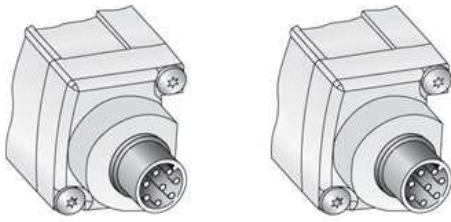
- |1| Detection height: 50 mm
- |2| Status indicator/power on
- |3| Connector M12, 8-pin

## Adjustments receiver

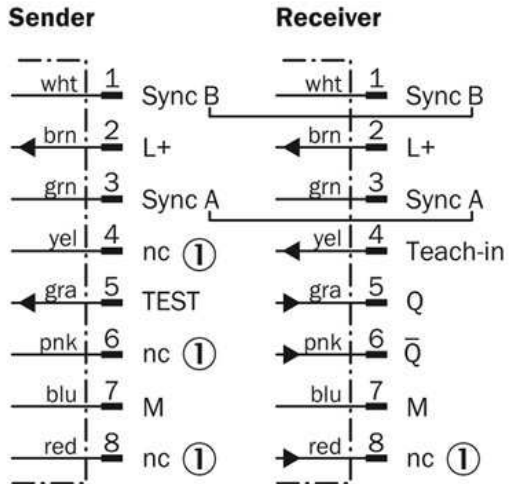


- |1| Supply voltage
- |2| No object in the light path
- |3| Light path interrupted
- |4| Synchronization error
- |5| Less received signal during teach-in
- |6| Device error
- |7| Activated teach-in procedure

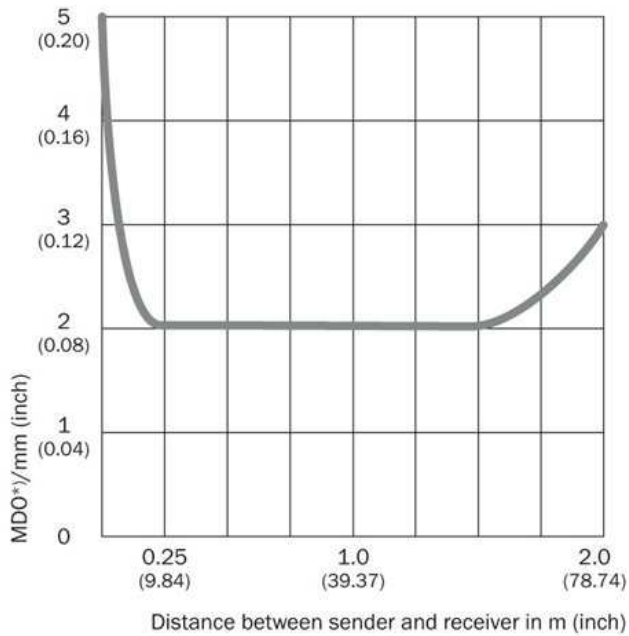
Connection type and diagram



|1| not connected



Characteristic curve: MDO



\*) MDO: Minimum detectable object size measured in a direction parallel to the HLG

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