



# HLG2-050F811

HLG

SWITCHING AUTOMATION LIGHT GRIDS

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

Type	Part no.
HLG2-050F811	1029853

Other models and accessories → [www.sick.com/HLG](http://www.sick.com/HLG)

### Detailed technical data

#### Features

<b>Sensor principle</b>	Sender/receiver
<b>Minimum detectable object (MDO)</b>	Parallel beam, 2 mm
<b>Beam separation</b>	2 mm
<b>Number of beams</b>	26
<b>Detection height</b>	50 mm

#### Mechanics/electronics

<b>Wave length</b>	950 nm
<b>Supply voltage <math>V_s</math></b>	DC 15 V ... 30 V <sup>1)</sup>
<b>Power consumption sender</b>	56.3 mA <sup>2)</sup>
<b>Power consumption receiver</b>	125.2 mA <sup>2)</sup>
<b>Ripple</b>	< 5 V <sub>pp</sub>
<b>Output current <math>I_{max}</math></b>	≤ 100 mA
<b>Output load, capacitive</b>	100 nF
<b>Output load, Inductive</b>	1 H
<b>Initialization time</b>	0.8 s
<b>Switching output</b>	2 x PNP <sup>3)</sup>
<b>Output mode</b>	Q dark switching <sup>4)</sup>
<b>Teach-in input</b>	PNP
<b>Dimensions (W x H x D)</b>	34 mm x 123 mm x 29 mm
<b>Connection type</b>	Male connector M12, 8-pin
<b>Housing material</b>	Aluminum

<sup>1)</sup> Typical value.

<sup>2)</sup> , Typical value.

<sup>3)</sup> Q /  $\bar{Q}$ .

<sup>4)</sup> Q = active, if at least one beam is interrupted, /Q = active, if all of the beams are free.

<b>Indication</b>	LED
<b>Synchronization</b>	Cable
<b>Enclosure rating</b>	IP54
<b>Circuit protection</b>	U <sub>V</sub> connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
<b>Protection class</b>	III
<b>Weight</b>	135 g
<b>Front screen</b>	PMMA

<sup>1)</sup> Typical value.

<sup>2)</sup> , Typical value.

<sup>3)</sup> Q /  $\bar{Q}$ .

<sup>4)</sup> Q = active, if at least one beam is interrupted, /Q = active, if all of the beams are free.

## Performance

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

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

## Ambient data

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

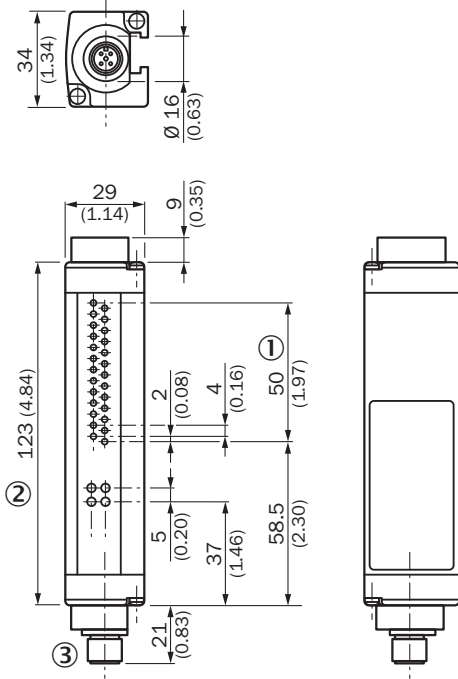
<sup>1)</sup> Sunlight.

## Classifications

<b>ECLASS 5.0</b>	27270910
<b>ECLASS 5.1.4</b>	27270910
<b>ECLASS 6.0</b>	27270910
<b>ECLASS 6.2</b>	27270910
<b>ECLASS 7.0</b>	27270910
<b>ECLASS 8.0</b>	27270910
<b>ECLASS 8.1</b>	27270910
<b>ECLASS 9.0</b>	27270910
<b>ECLASS 10.0</b>	27270910
<b>ECLASS 11.0</b>	27270910
<b>ECLASS 12.0</b>	27270910
<b>ETIM 5.0</b>	EC002549
<b>ETIM 6.0</b>	EC002549

<b>ETIM 7.0</b>	EC002549
<b>ETIM 8.0</b>	EC002549
<b>UNSPSC 16.0901</b>	39121528

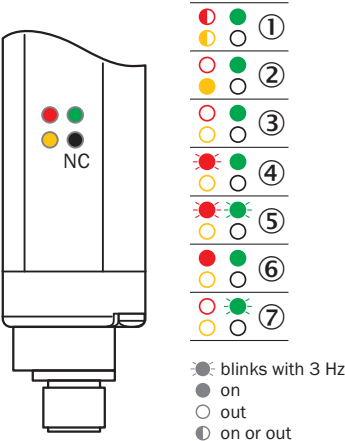
### Dimensional drawing (Dimensions in mm (inch))



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

### Adjustments

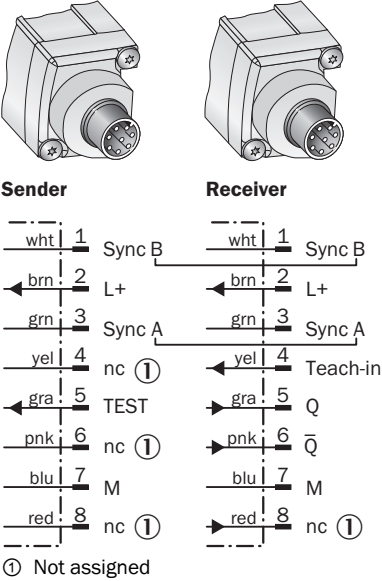
Setting options, receiver



- ① Supply voltage
- ② No object in the light path
- ③ Object in the light path
- ④ Sync error
- ⑤ Weak received signal during teach-in
- ⑥ Device error
- ⑦ Teach-in process active

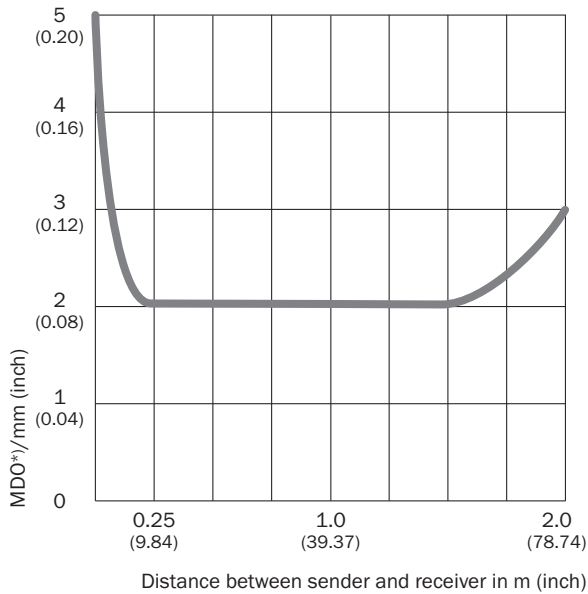
### Connection type and diagram

Connection type and diagram



## Diagramm





Characteristic curve: MDO




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

## Recommended accessories

Other models and accessories → [www.sick.com/HLG](http://www.sick.com/HLG)

	Brief description	Type	Part no.
<b>Optics cloths</b>			
	Cloth for cleaning optical surfaces	Lens cloth	4003353
<b>Distributors</b>			
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 8-pin, A-coded</li> <li><b>Connection type head B:</b> Female connector, M12, 8-pin, A-coded</li> <li><b>Connection type head C:</b> Male connector, M12, 8-pin, A-coded</li> <li><b>Note:</b> Male connector M12, 8-pin, straight, to 1 x female connector M12, 8-pin, straight and 1 x female connector M12, 8-pin, straight</li> </ul>	SBO-02F12-SM	6029306
<b>Terminal and alignment brackets</b>			
	4 pieces, Mounting kit 1, rotatable, swivel mount, plastic	BEF-2SMKEAKU4	2019649
<b>Others</b>			
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 8-pin, straight, A-coded</li> <li><b>Connection type head B:</b> Male connector, M12, 8-pin, straight, A-coded</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 1 m, 8-wire, PUR, halogen-free</li> <li><b>Description:</b> Sensor/actuator cable, shielded</li> <li><b>Application:</b> Zones with oils and lubricants, Drag chain operation</li> </ul>	YF2A28-010UA6M2A28	2096108

	Brief description	Type	Part no.
	<ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Female connector, M12, 8-pin, straight, A-coded</li> <li>• <b>Connection type head B:</b> Flying leads</li> <li>• <b>Signal type:</b> Sensor/actuator cable</li> <li>• <b>Cable:</b> 5 m, 8-wire, PVC</li> <li>• <b>Description:</b> Sensor/actuator cable, shielded</li> <li>• <b>Application:</b> Zones with chemicals</li> </ul>	<p>YF2A28-050VA6XLEAX</p>	<p>2096244</p>

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)