

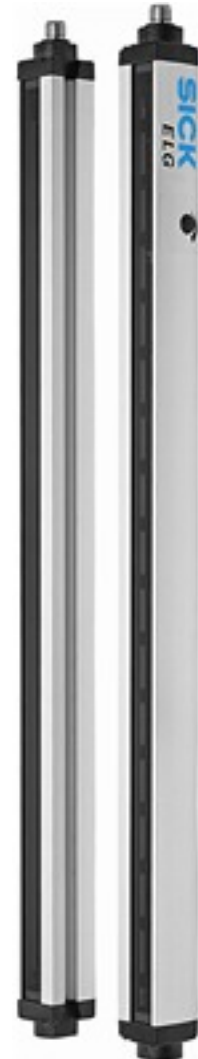


## Standard automation light grids ELG, ELG Long Range

ELG3-0150N521



**Model Name** > [ELG3-0150N521](#)  
**Part No.** > [1047932](#)



**At a glance**

- Up to 128 beams
- Different beam separations 30 mm and 60 mm
- High functional reserve (gain) for ranges up to 12 m
- Potentiometer for sensitivity setting
- Ambient light up to 150,000 lux
- Tough, aluminum housing
- PNP/NPN/relay output and a test input
- Optical synchronization

**Your benefits**

- Insensitive to ambient light when exposed to direct sunlight, strobe lights, and highly reflective objects, eliminating false trips
- High functional reserve (excess gain) ensures operation even if it gets dirty, dusty, or misaligned, reducing maintenance costs
- Efficient and effective way to combine multiple sensors in one housing with one connector
- Simple commissioning thanks to a larger optical aperture angle and manual fine adjustment option
- Optical synchronization enables quick installation and cost-effective connection
- The sensitivity adjustment can be used to detect or ignore translucent materials to reduce production problems



**Features**

Technology:	Sender/receiver
Task:	Switching light grid
Minimum detectable object (MDO):	≤Parallel beam: ≥ 35 mm ... 65 mm
Beam separation:	30 mm
Number of beams:	6
Detection height:	150 mm
Evaluation beams:	Parallel beam

**Performance**

Maximum range:	17 m
Minimum range:	≥0 mm
Working range:	12 m

Response time <sup>1)</sup>:

Parallel beam:  $\geq 28$  ms

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

## Interfaces

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Output type: 2 x NPN (Q and /Q)  
Connection type: Connector M12, 4-pin  
Test input: PNP

## Mechanics/electronics

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Wave length: 880 nm  
Supply voltage  $V_s$  <sup>1)</sup>: DC 15 V ... 30 V  
Power consumption <sup>2)</sup>: < 100 mA  
Power consumption sender <sup>3)</sup>: < 100 mA  
Power consumption receiver <sup>4)</sup>: < 100 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 226 mm x 29 mm  
Housing material: Aluminum  
Indication: LED  
Synchronization: Optical  
Enclosure rating: IP 65  
Circuit protection: Output Q short-circuit protected  
Interference suppression  
VS connections reverse-polarity protected  
  
Weight: 800 g  
Front screen: PMMA  
Pulse rate: 250 kHz  
Output mode <sup>5)</sup>: Q dark switching

<sup>1) 2) 3) 4)</sup> Typical value <sup>5)</sup> Q = active in case one beam is interrupted, /Q = active in case all beam are free

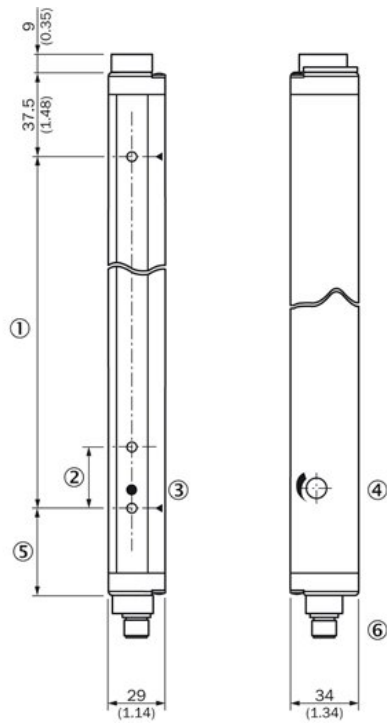
## Ambient data

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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:  $\leq 150,000$  lx  
Vibration resistance: 5 g, 10 Hz ... 55 Hz (IEC 68-2-6)  
Shock load: 10 g/DIN EN 60068-2-29/16 ms

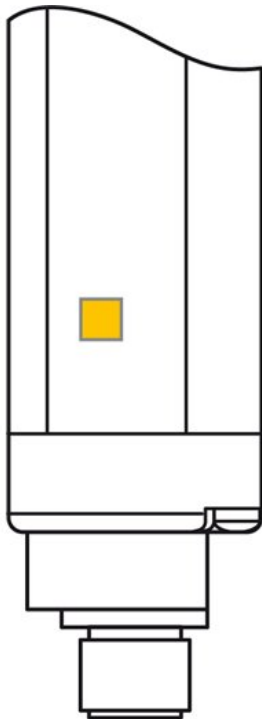
<sup>1)</sup> Sunlight

## Dimensional drawing

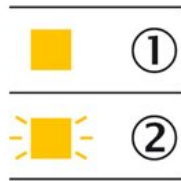


- |1| Detection height
- |2| Beam spacing ELG3: 30 mm/ELG6: 60 mm
- |3| Status indicator (ELGE)/Power on (ELGS)
- |4| Sensitivity adjustment
- |5| Distance to first beam ELG3: 38,5 mm/ELG6: 68,5 mm
- |6| Connector M12, 4-pin

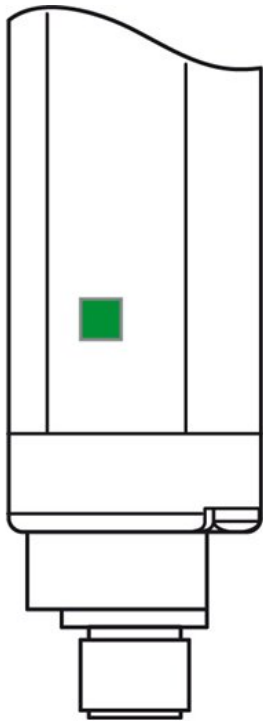
## LED display receiver



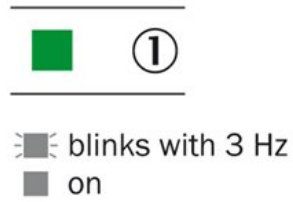
- |1| No object in the light path
- |2| Pollution indication



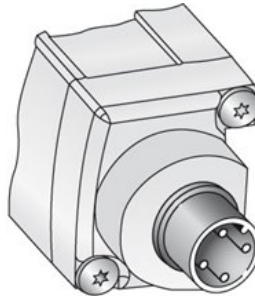
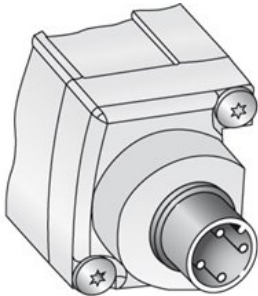
LED display sender



|1| Supply voltage

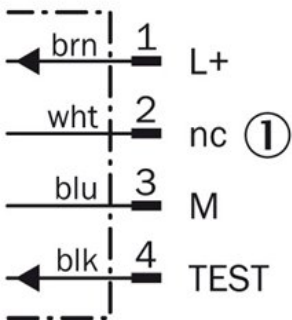


Connection type and diagram

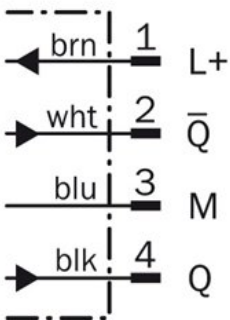


|1| not connected

Sender



Receiver



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