



## Standard automation light grids WLG

WLG12-G137



**Model Name** > [WLG12-G137](#)  
**Part No.** > [1016046](#)



*Illustration may differ*

**At a glance**

- The direct output of individual beams for measuring and switching
- Response time 0.6 ms
- Eight visible transmission LEDs
- Eight PNP switching outputs and one alarm output
- Sensitivity can be set via a potentiometer
- Polarizing filter for reflective surfaces

**Your benefits**

- The WLG's fast response time keeps up with increased conveyor speeds, increasing throughput
- Detects translucent and semi-transparent objects for consistent detection of most objects
- Retro-reflective sensor saves space, installation time and cost
- Polarized retro-reflective light grids are designed to detect difficult reflective targets, such as stretch wrap and other thin films
- Visible red light reduces assembly time
- Multiple output versions indicate detection position and size of the object for closed loop process feedback and inspection



**Features**

Technology:	Reflex light grid
Task:	Switching light grid
Minimum detectable object (MDO) <sup>1)</sup> :	Parallel beam: ≤6 mm to 12,5 mm
Beam separation:	12.5 mm
Number of beams:	8
Detection height:	87.5 mm
Resolution (adjustable) <sup>2)</sup> :	6 mm to 12,5 mm

<sup>1)</sup> MDO min. detectable object    <sup>2)</sup> Dependence of the range

**Performance**

Maximum range:	1.5 m
Minimum range:	≥100 mm
Working range:	1.5 m
Response time <sup>1)</sup> :	Parallel beam: ≥0.6 ms

1) With resistive load

## Interfaces

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Switching output: 8 x PNP Q und Alarm  
Connection type: Leitung 12 adrig

## Mechanics/electronics

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Wave length: 650 nm  
Supply voltage  $V_s$  <sup>1)</sup>: DC 15 V ... 30 V  
Power consumption <sup>2)</sup>: 80 mA  
Power consumption sender <sup>3)</sup>: 80 mA  
Power consumption receiver <sup>4)</sup>: 80 mA  
Residual ripple: > 5 Vpp  
Output current  $I_{max}$ : 100 mA  
Output load capacitive: 100  $\mu$ F  
Output load inductive: 1 H  
Initialization time: 0.6 s  
Dimensions (W x H x D): 62 mm x 106 mm x 46.6 mm  
Housing material: Aluminum  
Indication: LED  
Enclosure rating: IP 67  
Circuit protection: Output Q short-circuit protected, Interference suppression, VS connections reverse-polarity protected  
Weight: 230 g  
Front screen: PMMA  
Output mode <sup>5)</sup>: Q dark switching  
Teach input: PNP

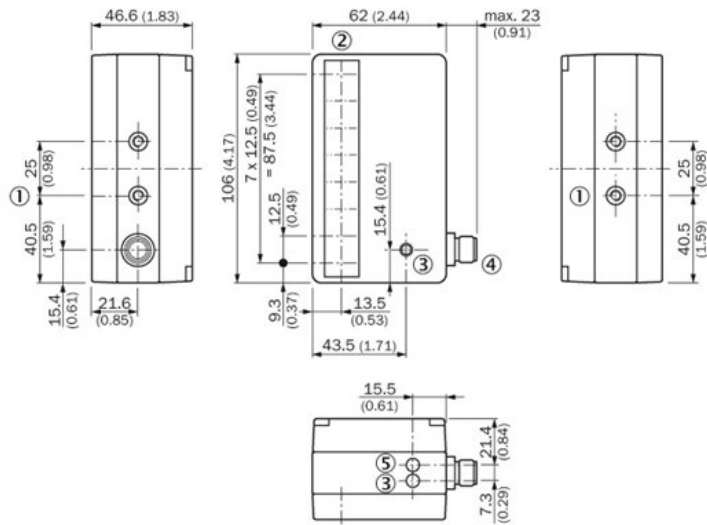
1) 2) 3) 4) Typical value <sup>5)</sup> Q = active in case one beam is interrupted, /Q = active in case all beam are free

## Ambient data

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Protection class: II  
EMC: EN 60947-5-2  
Ambient temperature: Operation: -25 ... 55 °C  
Storage: -20 ... 70 °C  
Vibration resistance: 5 g, 10 Hz ... 55 Hz, IEC 68-2-6  
Shock load: 10 g/IEC 68-2-29/16 ms

## Dimensional drawing



- |1| M5 threaded mounting hole, 6 mm deep
- |2| Optic
- |3| Multi-function indicators at front and top:  
reception indicator, contamination indicator, teach-in err
- |4| Connector M12, 5-pin or cable 2m
- |5| Operating indicator

All dimensions in mm (inch)

## Adjustments



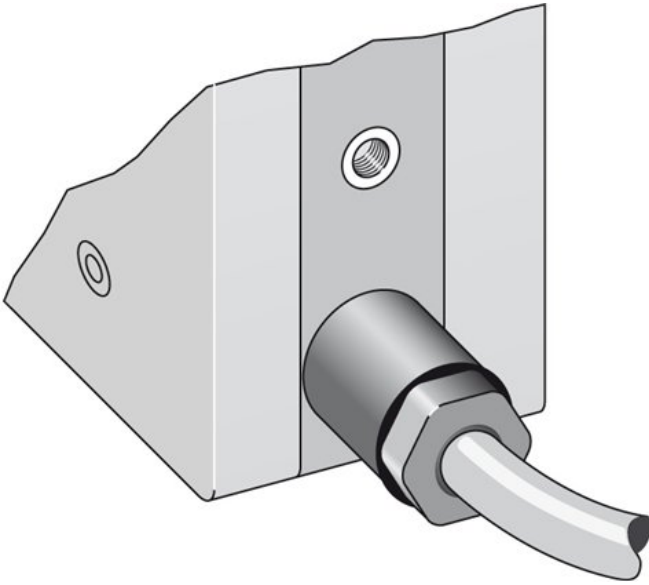
### Choice of sensitivity range, dimensions in mm/m (inch)

Potentiometer setting	Resolution	Working range	Reflector
1	> 12.5 mm (0.49)	1.5 m (59.06)	2 x PL80A/PL40A
2	> 10 mm (0.39)	1.2 m (47.24)	2 x PL80A/PL40A
3	> 9 mm (0.35)	1.0 m (39.37)	PL180E01
4	> 7 mm (0.28)	0.8 m (31.50)	PL180E01
5	> 6 mm (0.24)	0.4 m (15.75)	PL180E01

|1| Potentiometer for sensitivity adjustment

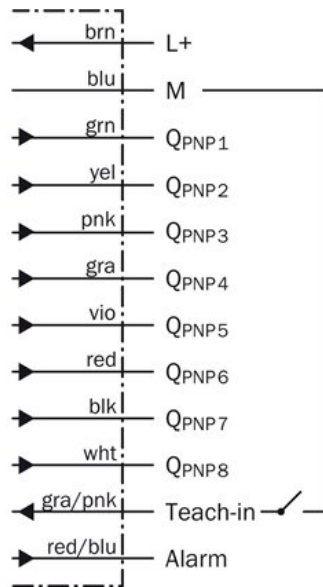
## Connection type

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## Connection diagram

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