# WLG12-V537

## WLG

**AUTOMATION LIGHT GRIDS**

**SICK**
Sensor Intelligence.

# WLG12-V537 | WLG

## AUTOMATION LIGHT GRIDS

Illustration may differ

## Ordering information

| Type | part no. |
|------|----------|
| WLG12-V537 | 1016045 |

Other models and accessories ➜ www.sick.com/WLG

## Detailed technical data

### Features

| | |
|---|---|
| **Sensor principle** | Photoelectric retro-reflective sensor |
| **Minimum detectable object (MDO)** | Parallel beam, 6 mm ... 12.5 mm |
| **Beam separation** | 12.5 mm |
| **Number of beams** | 8 |
| **Detection height** | 87.5 mm |
| **Resolution (adjustable)** | 6 mm ... 12.5 mm [1] |

[1] Dependence of the range.

### Mechanics/electronics

| | |
|---|---|
| **Wave length** | 650 nm |
| **Supply voltage $V_s$** | DC 18 V ... 30 V [1] |
| **Power consumption sender** | 80 mA |
| **Ripple** | < 5 $V_{pp}$ |
| **Output current $I_{max.}$** | ≤ 100 mA |
| **Output load, capacitive** | 100 nF |
| **Output load, Inductive** | 1 H |
| **Initialization time** | 0.6 s |
| **Switching output** | PNP [2] |
| **Output mode** | Q dark switching [3] |
| **Teach-in input** | PNP |
| **Dimensions (W x H x D)** | 62 mm x 106 mm x 46.6 mm |

[1] Typical value.

[2] $\bar{Q}$.

[3] Q = active, if at least one beam is interrupted, /Q = active, if all of the beams are free.

| | |
|---|---|
| Connection type | Male connector M12, 5-pin |
| Housing material | Plastic |
| Indication | LED |
| Enclosure rating | IP67 |
| Circuit protection | $U_V$ connections, reverse polarity protected<br>Output Q short-circuit protected<br>Interference pulse suppression |
| Protection class | II |
| Weight | 230 g |
| Front screen | PMMA |

[1] Typical value.

[2] Q̄.

[3] Q = active, if at least one beam is interrupted, /Q = active, if all of the beams are free.

## Performance

| | |
|---|---|
| Maximum range | 1.5 m |
| Minimum range | ≥ 100 mm |
| Operating range | 1.5 m |
| Response time | Parallel beam, 0.6 ms [1] |

[1] With resistive load.

## Ambient data

| | |
|---|---|
| Shock resistance | 10 g / DIN EN 60068-2-29 / 16 ms |
| Vibration resistance | 5 g, 10 Hz ... 55 Hz (IEC 68-2-6) |
| EMC | EN 60947-5-2 |
| Ambient operating temperature | −25 °C ... +55 °C |
| Ambient temperature, storage | −20 °C ... +70 °C |

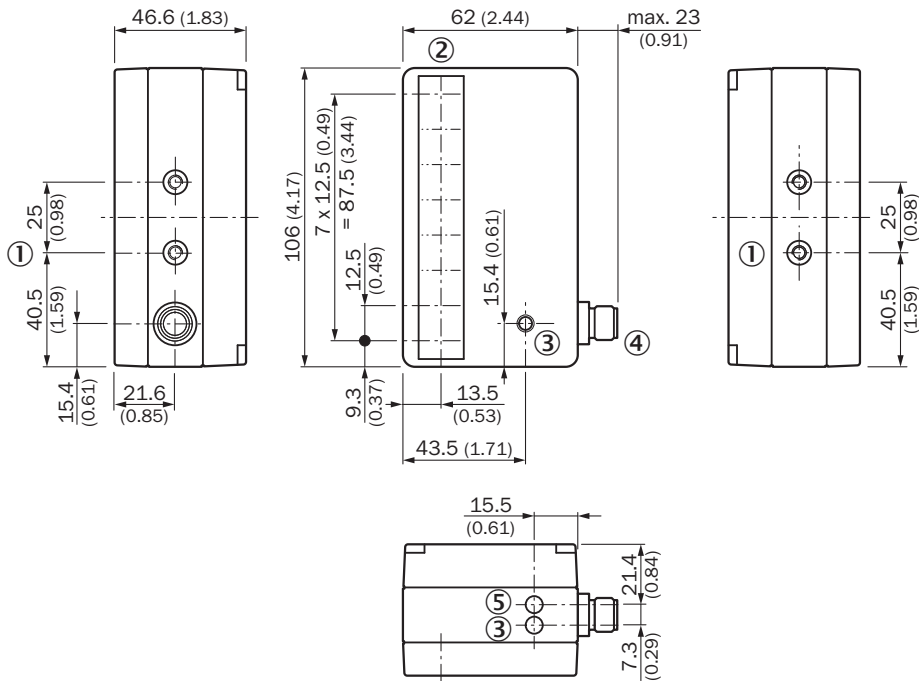## Certificates

| | |
|---|---|
| EU declaration of conformity | ✓ |
| UK declaration of conformity | ✓ |
| ACMA declaration of conformity | ✓ |
| Moroccan declaration of conformity | ✓ |
| China RoHS | ✓ |

## Classifications

| | |
|---|---|
| ECLASS 5.0 | 27270910 |
| ECLASS 5.1.4 | 27270910 |
| ECLASS 6.0 | 27270910 |
| ECLASS 6.2 | 27270910 |
| ECLASS 7.0 | 27270910 |
| ECLASS 8.0 | 27270910 |
| ECLASS 8.1 | 27270910 |
| ECLASS 9.0 | 27270910 |
| ECLASS 10.0 | 27270910 |

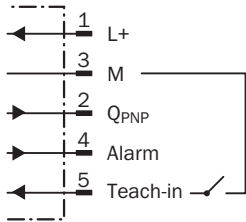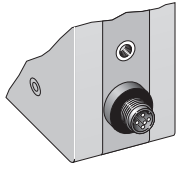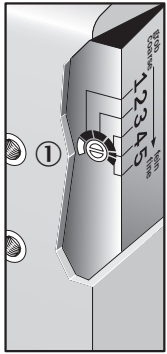| ECLASS 11.0 | 27270910 |
| --- | --- |
| ECLASS 12.0 | 27270910 |
| ETIM 5.0 | EC002549 |
| ETIM 6.0 | EC002549 |
| ETIM 7.0 | EC002549 |
| ETIM 8.0 | EC002549 |
| UNSPSC 16.0901 | 39121528 |

## Dimensional drawing



Dimensions in mm (inch)
① M5 threaded mounting hole, 6 mm deep
② Optic
③ multifunctional display front and top: receive indicator, output weak signal, error during teach-in
④ M12 male connector, 5-pin or 2 m cable
⑤ Operating indicator

## Connection type and diagram

```
1  L+
3  M
2  Q_PNP
4  Alarm
5  Teach-in
```

## 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

## Recommended accessories

Other models and accessories ➜ www.sick.com/WLG

| Brief description | Type | part no. |
|---|---|---|
| **connectors and cables** | | |
| • **Connection type head A:** Female connector, M12, 5-pin, straight, A-coded<br>• **Description:** Unshielded<br>• **Connection systems:** Screw-type terminals<br>• **Permitted cross-section:** ≤ 0.75 mm² | DOS-1205-G | 6009719 |
| • **Connection type head A:** Female connector, M12, 5-pin, angled, A-coded<br>• **Connection type head B:** Flying leads<br>• **Signal type:** Sensor/actuator cable<br>• **Cable:** 5 m, 5-wire, PVC<br>• **Description:** Sensor/actuator cable, unshielded<br>• **Application:** Zones with chemicals, Uncontaminated zones | YG2A15-050VB5XLEAX | 2096216 |

| Brief description | Type | part no. |
|---|---|---|
| **Mounting systems** | | |
| • **Description:** Mounting bracket<br>• **Material:** Steel<br>• **Details:** Steel, zinc coated<br>• **Items supplied:** Mounting hardware included | BEF-WN-WLG12 | 2017567 |
| **reflectors and optics** | | |
| • **Description:** Reflector, rectangular, screw connection<br>• **Dimensions:** 40 mm 180 mm<br>• **Ambient operating temperature:** –20 °C … +65 °C | PL180E01 | 1013289 |

## 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**

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