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Product data sheet



WLG12-V537

WLG

SWITCHING AUTOMATION LIGHT GRIDS

SICK
Sensor Intelligence.

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SWITCHING 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
Connection type	Male connector M12, 5-pin
Housing material	Plastic

[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.

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Indication	LED
Enclosure rating	IP67
Circuit protection	U_V connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
Protection class	II
Weight	230 g
Front screen	PMMA

[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.

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

Enclosure rating	IP67
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

Classifications

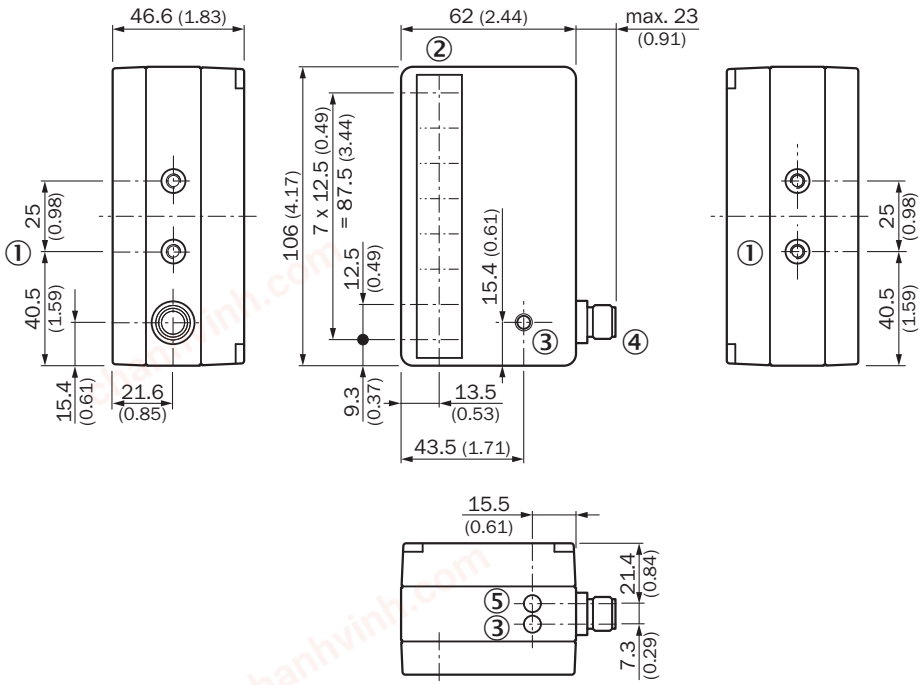
ECl@ss 5.0	27270910
ECl@ss 5.1.4	27270910
ECl@ss 6.0	27270910
ECl@ss 6.2	27270910
ECl@ss 7.0	27270910
ECl@ss 8.0	27270910
ECl@ss 8.1	27270910
ECl@ss 9.0	27270910
ECl@ss 10.0	27270910
ECl@ss 11.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
UNSPSC 16.0901	39121528

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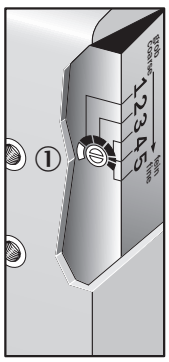
SWITCHING AUTOMATION LIGHT GRIDS

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

Adjustments



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

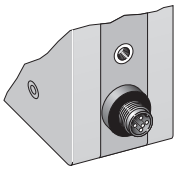
Potentiometer setting	Resolution	Working range	Reflector
1	> 12.5 mm (0.49)	1.5 m (59.06)	2 x PL80A/PL40A
2	> 10 mm (0.39)	1.2 m (47.24)	2 x PL80A/PL40A
3	> 9 mm (0.35)	1.0 m (39.37)	PL180E01
4	> 7 mm (0.28)	0.8 m (31.50)	PL180E01
5	> 6 mm (0.24)	0.4 m (15.75)	PL180E01

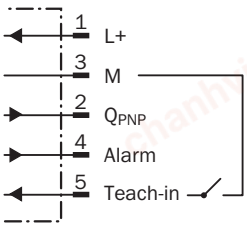
① Potentiometer for sensitivity adjustment

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Connection type and diagram

Connection type and diagram





Recommended accessories

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

	Brief description	Type	Part no.
Mounting brackets and plates			
	• **Description:** Mounting bracket • **Material:** Steel • **Items supplied:** Mounting hardware included	BEF-WN-WLG12	2017567
Plug connectors and cables			
	• **Connection type head A:** Female connector, M12, 5-pin, angled, A-coded • **Connection type head B:** Flying leads • **Authorizations:** CE, UL • **Signal type:** Sensor/actuator cable • **Cable:** 5 m, 5-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals	YG2A15-050VB5XLEAX	2096216
	• **Connection type head A:** Female connector, M12, 5-pin, straight • **Authorizations:** UL • **Description:** Unshielded, Head A: female connector, M12, 5-pin, straight, unshielded, for cable diameter 4 mm ... 6 mm Head B: - • **Connection systems:** Screw-type terminals • **Permitted cross-section:** ≤ 0.75 mm²	DOS-1205-G	6009719
Reflectors			
	• **Description:** Reflector, rectangular, screw connection • **Dimensions:** 40 mm 180 mm • **Ambient operating temperature:** –20 °C ... +65 °C	PL180E01	1013289

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