



WL4SLG-3P2232

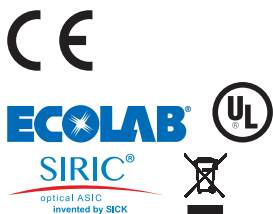
W4SLG-3

MINIATURE PHOTOELECTRIC SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

Type	Part no.
WL4SLG-3P2232	1058243

Other models and accessories → [www.sick.com/W4SLG-3](http://www.sick.com/W4SLG-3)

### Detailed technical data

#### Features

<b>Sensor/ detection principle</b>	Photoelectric retro-reflective sensor, autocollimation
<b>Dimensions (W x H x D)</b>	12.2 mm x 41.8 mm x 17.3 mm
<b>Housing design (light emission)</b>	Rectangular
<b>Mounting hole</b>	M3
<b>Sensing range max.</b>	0 m ... 4.5 m <sup>1)</sup>
<b>Sensing range</b>	0 m ... 2 m <sup>1)</sup>
<b>Type of light</b>	Visible red light
<b>Light source</b>	Laser <sup>2)</sup>
<b>Light spot size (distance)</b>	Ø 1 mm (500 mm)
<b>Wave length</b>	650 nm
<b>Laser class</b>	1 (EN 60825-1:2014, IEC 60825-1:2014 / CDRH 21 CFR 1040.10 & 1040.11)
<b>Adjustment</b>	Single teach-in button
<b>AutoAdapt</b>	✓
<b>Special applications</b>	Detecting transparent objects, Detecting small objects

<sup>1)</sup> Reflective tape REF-AC1000.

<sup>2)</sup> Average service life: 50,000 h at T<sub>U</sub> = +25 °C.

## Mechanics/electronics

<b>Supply voltage</b>	10 V DC ... 30 V DC <sup>1)</sup>
<b>Ripple</b>	< 5 V <sub>pp</sub> <sup>2)</sup>
<b>Power consumption</b>	30 mA <sup>3)</sup>
<b>Switching output</b>	PNP <sup>4)</sup>
<b>Output function</b>	Complementary
<b>Switching mode</b>	Light/dark switching <sup>4)</sup>
<b>Output current I<sub>max.</sub></b>	≤ 100 mA
<b>Response time</b>	≤ 0.5 ms <sup>5)</sup>
<b>Switching frequency</b>	1,000 Hz <sup>6)</sup>
<b>Connection type</b>	Male connector M8, 4-pin
<b>Circuit protection</b>	A <sup>7)</sup> B <sup>8)</sup> C <sup>9)</sup>
<b>Protection class</b>	III
<b>Weight</b>	100 g
<b>Polarisation filter</b>	✓
<b>Housing material</b>	Plastic, Novodur
<b>Optics material</b>	Plastic, PMMA
<b>Enclosure rating</b>	IP66 IP67
<b>Special feature</b>	Detecting transparent objects
<b>Ambient operating temperature</b>	-10 °C ... +50 °C
<b>Ambient operating temperature extended</b>	-30 °C ... +55 °C <sup>10) 11)</sup>
<b>Ambient storage temperature</b>	-30 °C ... +70 °C

<sup>1)</sup> Limit values when operated in short-circuit protected network: max. 8 A.

<sup>2)</sup> May not exceed or fall below U<sub>y</sub> tolerances.

<sup>3)</sup> Without load.

<sup>4)</sup> Q = light switching.

<sup>5)</sup> Signal transit time with resistive load.

<sup>6)</sup> With light/dark ratio 1:1.

<sup>7)</sup> A = V<sub>S</sub> connections reverse-polarity protected.

<sup>8)</sup> B = inputs and output reverse-polarity protected.

<sup>9)</sup> C = interference suppression.

<sup>10)</sup> As of T<sub>a</sub> = 50 °C, a max. supply voltage V<sub>max.</sub> = 24 V and a max. load current I<sub>max.</sub> = 50 mA is permitted.

<sup>11)</sup> Operation below Tu -10 °C is possible if the sensor is already switched on at Tu > -10 °C, then cools down, and the supply voltage is subsequently not switched off. Switching on below Tu -10 °C is not permissible.

## Safety-related parameters

<b>MTTF<sub>D</sub></b>	655 years (EN ISO 13849-1) <sup>1)</sup>
<b>DC<sub>avg</sub></b>	0%

<sup>1)</sup> Mode of calculation: Parts-Count-calculation.

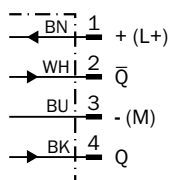
## Classifications

<b>ECI@ss 5.0</b>	27270902
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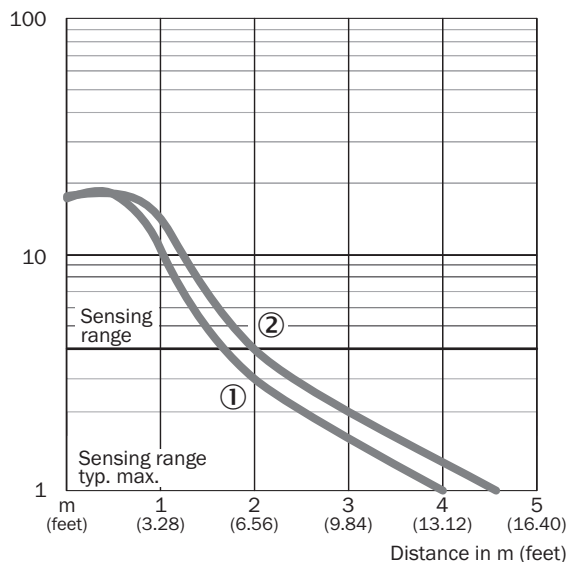
<b>ECl@ss 5.1.4</b>	27270902
<b>ECl@ss 6.0</b>	27270902
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<b>ECl@ss 8.1</b>	27270902
<b>ECl@ss 9.0</b>	27270902
<b>ECl@ss 10.0</b>	27270902
<b>ECl@ss 11.0</b>	27270902
<b>ETIM 5.0</b>	EC002717
<b>ETIM 6.0</b>	EC002717
<b>ETIM 7.0</b>	EC002717
<b>UNSPSC 16.0901</b>	39121528

### Connection diagram

Cd-083



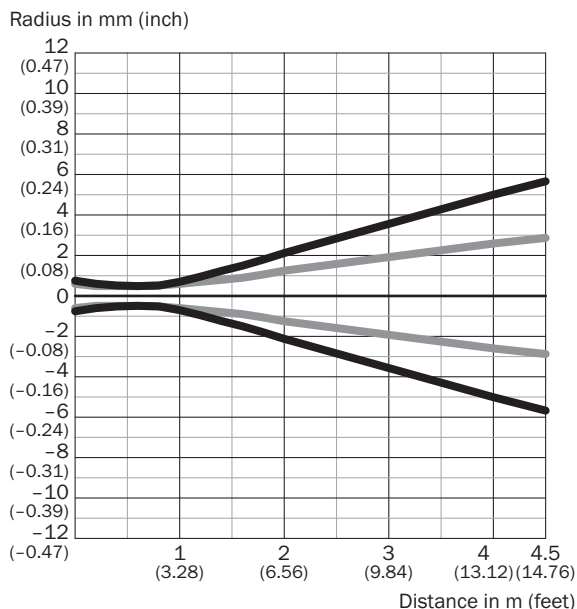
### Characteristic curve



- ① Reflector PLV14-A / PLH25-M12 / PLH25-D12
- ② Reflector P41F / reflective tape REF-AC1000

## Light spot size

### Overview

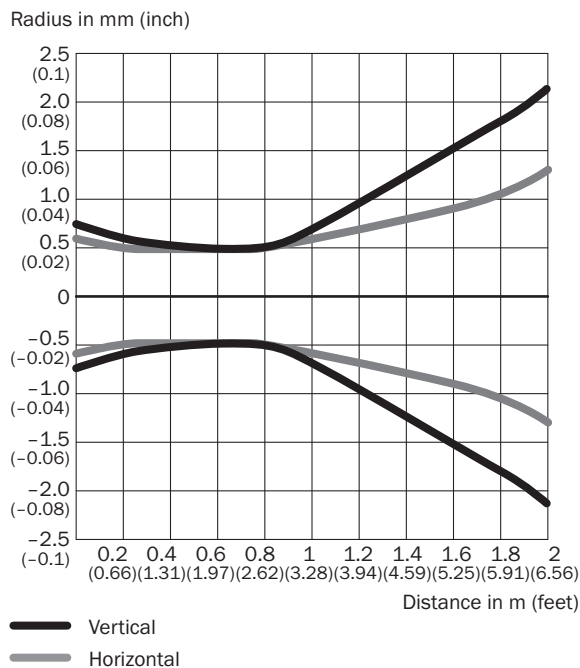


### Dimensions in mm (inch)

Sensing range	Vertical	Horizontal
<b>0.5 m</b> <b>(1.64 feet)</b>	< 1.0 (0.04)	< 1.0 (0.04)
<b>1 m</b> <b>(3.28 feet)</b>	1.5 (0.06)	1.2 (0.05)
<b>2 m</b> <b>(6.56 feet)</b>	4.3 (0.17)	2.6 (0.10)
<b>4.5 m</b> <b>(14.76 feet)</b>	11.3 (0.44)	5.6 (0.22)

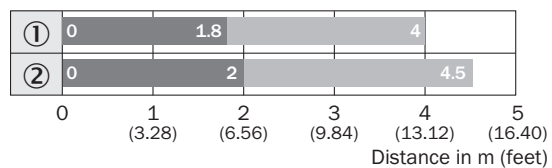
— Vertical  
 — Horizontal

## Light spot size (detailed view)



— Vertical  
 — Horizontal

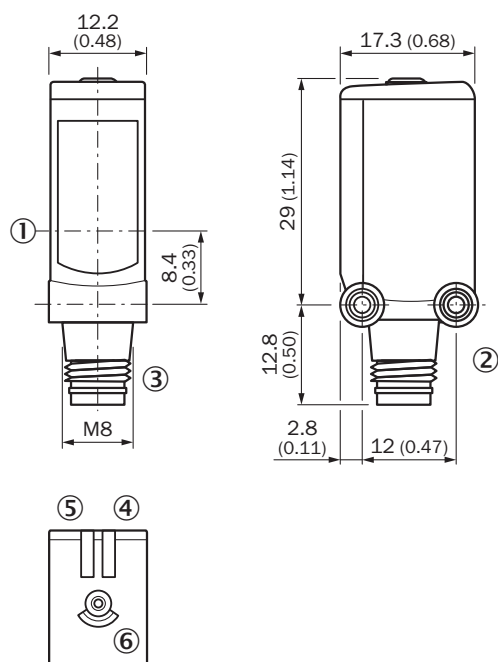
### Sensing range diagram



- Sensing range    ■ Sensing range max.
- ① Reflector PLV14-A / PLH25-M12 / PLH25-D12  
 ② Reflector P41F / reflective tape REF-AC1000

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

WL4SL-3, WL4SLG-3, WSE4SL-3, plug




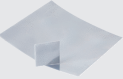


- ① Center of optical axis  
 ② Threaded mounting hole M3  
 ③ Connection  
 ④ LED indicator green: Supply voltage active  
 ⑤ LED indicator yellow: Status of received light beam  
 ⑥ Single teach-in button

### Recommended accessories

Other models and accessories → [www.sick.com/W4SLG-3](http://www.sick.com/W4SLG-3)

	Brief description	Type	Part no.
Mounting brackets and plates			
	Mounting bracket for floor mounting, Stainless steel 1.4571, mounting hardware included	BEF-W4-B	2051630

	Brief description	Type	Part no.
	Universal mounting bracket for reflectors, steel, zinc coated	BEF-WN-REFX	2064574
<b>Plug connectors and cables</b>			
	Head A: female connector, M8, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF8U14-050VA3XLEAX	2095889
	Head A: male connector, M8, 4-pin, straight Head B: - Cable: unshielded	STE-0804-G	6037323
<b>Reflectors</b>			
	Suitable for laser sensors, self-adhesive, cut, see alignment note, 56.3 mm x 56.3 mm, self-adhesive	REF-AC1000-56	4063030

## 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)