



# WLG4S-3P2234VS06

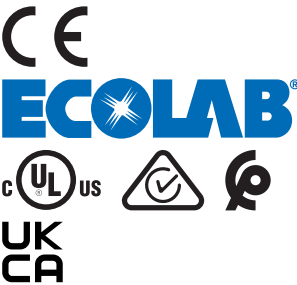
W4

PHOTOELECTRIC SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ



Ordering information

Type	part no.
WLG4S-3P2234VS06	1069434

Other models and accessories → [www.sick.com/W4](http://www.sick.com/W4)

Detailed technical data

Features

<b>Functional principle</b>		Photoelectric retro-reflective sensor
<b>Functional principle detail</b>		Without reflector minimum distance (autocollimation/coaxial optics)
<b>Sensing range max.</b>		0 m ... 5 m <sup>1)</sup>
<b>Sensing range</b>		0 m ... 3 m <sup>1)</sup>
<b>Polarisation filters</b>		Yes
<b>Emitted beam</b>		
	Light source	PinPoint LED <sup>2)</sup>
	Type of light	Visible red light
	Light spot size (distance)	Ø 45 mm (1.5 m)
<b>Key LED figures</b>		
	Wave length	650 nm
<b>Adjustment</b>		Cable, Single teach-in button <sup>3)</sup>
<b>Special features</b>		With external teach (ET) on PIN 2
<b>Special applications</b>		Hygienic and washdown zones, Detecting transparent objects
<b>Housing design</b>		Washdown
<b>AutoAdapt</b>		✓

<sup>1)</sup> Reflector PL80A.

<sup>2)</sup> Average service life: 100,000 h at T<sub>U</sub> = +25 °C.

<sup>3)</sup> External teach-in: pulse > 2 s with voltage U<sub>v</sub> with PNP and M with NPN.

## Safety-related parameters

<b>MTTF<sub>D</sub></b>	1,232 years
<b>DC<sub>avg</sub></b>	0 %

## Electronics

<b>Supply voltage U<sub>B</sub></b>	10 V DC ... 30 V DC <sup>1)</sup>
<b>Ripple</b>	< 5 V <sub>pp</sub> <sup>2)</sup>
<b>Current consumption</b>	30 mA <sup>3)</sup>
<b>Protection class</b>	III
<b>Digital output</b>	
Type	PNP
Switching mode	Light/dark switching
Output current I <sub>max.</sub>	≤ 100 mA
Response time	< 0.5 ms <sup>4)</sup>
Switching frequency	1,000 Hz <sup>5)</sup>
<b>Attenuation along light beam</b>	> 8 %
<b>Circuit protection</b>	A <sup>6)</sup> B <sup>7)</sup> C <sup>8)</sup>

<sup>1)</sup> Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8 A.

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

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

<sup>4)</sup> Signal transit time with resistive load.

<sup>5)</sup> With light/dark ratio 1:1.

<sup>6)</sup> A = V<sub>S</sub> connections reverse-polarity protected.

<sup>7)</sup> B = inputs and output reverse-polarity protected.

<sup>8)</sup> C = interference suppression.

## Mechanics

<b>Housing</b>	Rectangular
<b>Design detail</b>	Slim
<b>Dimensions (W x H x D)</b>	15.25 mm x 44.9 mm x 22.2 mm
<b>Connection</b>	Male connector M8, 4-pin <sup>1)</sup>
<b>Material</b>	
Housing	Metal, Stainless steel V4A (1.4404, 316L)
Front screen	Plastic, PMMA
<b>Weight</b>	40 g

<sup>1)</sup> Max. tightening torque: 0.6 Nm.

## Ambient data

<b>Enclosure rating</b>	IP66 IP67 IP68 IP69K <sup>1)</sup>
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<sup>1)</sup> Only in case of correctly mounted IP69K connecting cable.

<sup>2)</sup> At U<sub>V</sub> ≤ 24 V and I<sub>A</sub> < 30 mA.

<b>Ambient operating temperature</b>	-30 °C ... +60 °C <sup>2)</sup>
<b>Ambient temperature, storage</b>	-30 °C ... +75 °C
<b>UL File No.</b>	NRKH.E181493 & NRKH7.E181493

<sup>1)</sup> Only in case of correctly mounted IP69K connecting cable.

<sup>2)</sup> At UV ≤ 24 V and IA < 30 mA.

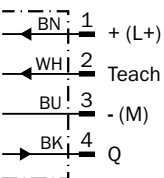
### Certificates

<b>EU declaration of conformity</b>	✓
<b>UK declaration of conformity</b>	✓
<b>ACMA declaration of conformity</b>	✓
<b>Moroccan declaration of conformity</b>	✓
<b>China-RoHS</b>	✓
<b>ECOLAB certificate</b>	✓
<b>cULus certificate</b>	✓
<b>Photobiological safety (DIN EN 62471) certificate</b>	✓

### Classifications

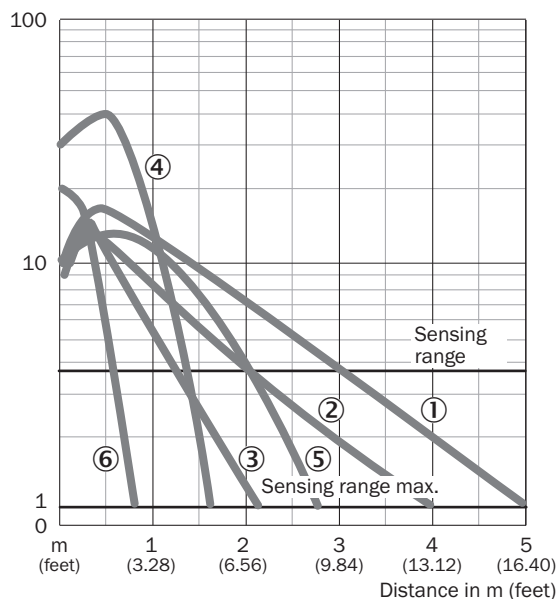
<b>ECLASS 5.0</b>	27270902
<b>ECLASS 5.1.4</b>	27270902
<b>ECLASS 6.0</b>	27270902
<b>ECLASS 6.2</b>	27270902
<b>ECLASS 7.0</b>	27270902
<b>ECLASS 8.0</b>	27270902
<b>ECLASS 8.1</b>	27270902
<b>ECLASS 9.0</b>	27270902
<b>ECLASS 10.0</b>	27270902
<b>ECLASS 11.0</b>	27270902
<b>ECLASS 12.0</b>	27270902
<b>ETIM 5.0</b>	EC002717
<b>ETIM 6.0</b>	EC002717
<b>ETIM 7.0</b>	EC002717
<b>ETIM 8.0</b>	EC002717
<b>UNSPSC 16.0901</b>	39121528

### Connection diagram Cd-092



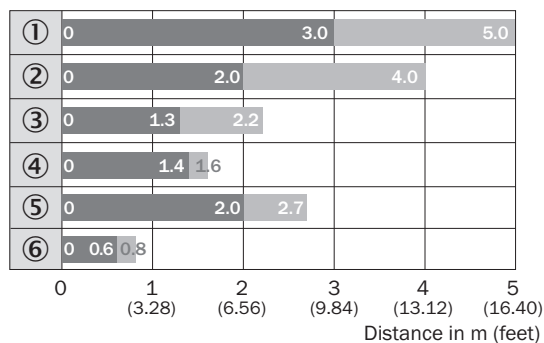
## Characteristic curve WL4S-3, WLG4S-3, 5 m

Operating reserve



- ① Reflector PL80A
- ② Reflector PL40A
- ③ Reflector PL20A
- ④ PL10F reflector
- ⑤ Reflector P250 CHEM
- ⑥ Reflective tape REF-IRF-56

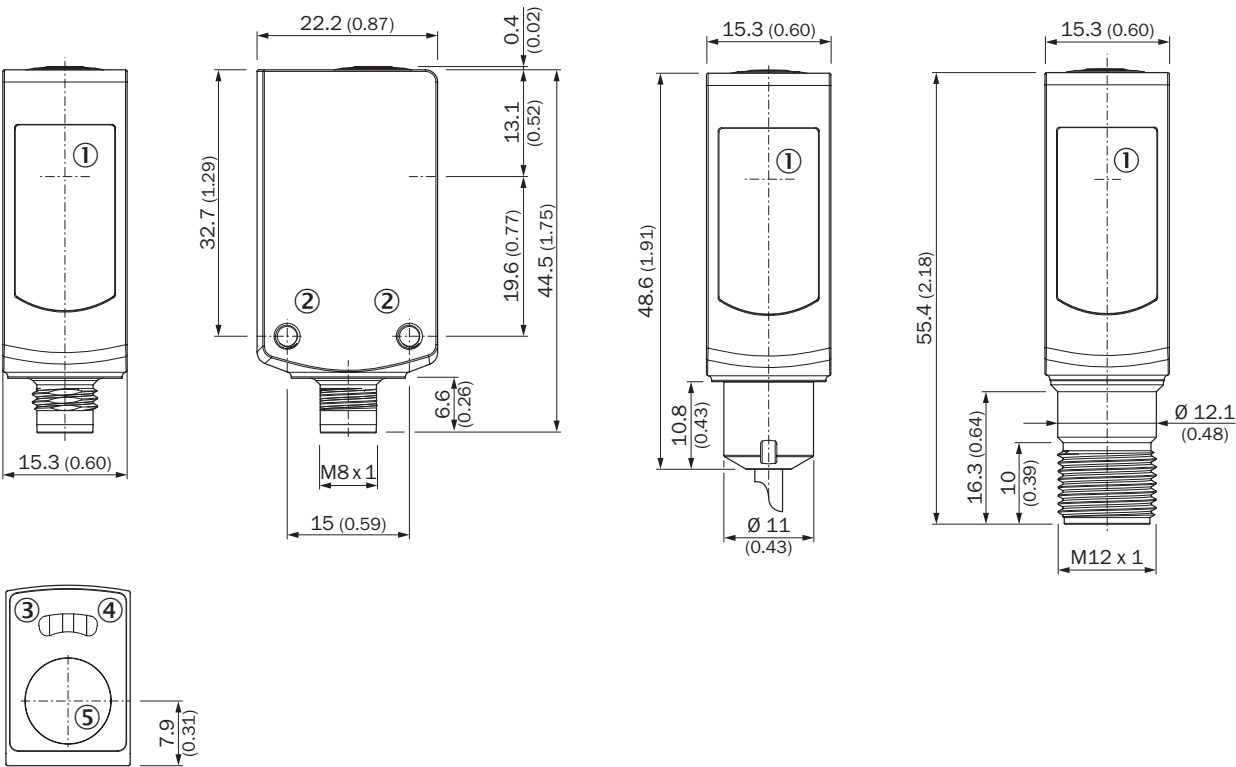
## Sensing range diagram WL4S-3, WLG4S-3, 5 m



■ Sensing range ■ Sensing range max.

- ① Reflector PL80A
- ② Reflector PL40A
- ③ Reflector PL20A
- ④ PL10F reflector
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Dimensional drawing WL4S-3V, WLG4S-3V, with single teach-in button





- Dimensions in mm (inch)
- ① Center of optical axis
  - ② Threaded mounting hole M3
  - ③ LED indicator yellow: Status of received light beam
  - ④ LED indicator green: Supply voltage active
  - ⑤ Teach-in button

Recommended accessories

Other models and accessories → [www.sick.com/W4](http://www.sick.com/W4)

	Brief description	Type	part no.
Mounting systems			
	<ul style="list-style-type: none"> <li><b>Description:</b> Mounting bracket for floor mounting</li> <li><b>Material:</b> Stainless steel</li> <li><b>Details:</b> Stainless steel 1.4571</li> <li><b>Items supplied:</b> Mounting hardware included</li> <li><b>Suitable for:</b> W4S, W4F, W4S</li> </ul>	BEF-W4-B	2051630

	Brief description	Type	part no.
reflectors and optics			
	<ul style="list-style-type: none"> <li>• <b>Description:</b> Chemically resistant, screw connection</li> <li>• <b>Dimensions:</b> 52 mm 61 mm</li> <li>• <b>Ambient operating temperature:</b> -20 °C ... +140 °C</li> </ul>	P250 CHEM	5321097
connectors and cables			
	<ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Female connector, M8, 4-pin, straight</li> <li>• <b>Connection type head B:</b> Flying leads</li> <li>• <b>Signal type:</b> Sensor/actuator cable</li> <li>• <b>Cable:</b> 5 m, 4-wire, PVC</li> <li>• <b>Description:</b> Sensor/actuator cable, unshielded</li> <li>• <b>Connection systems:</b> Flying leads</li> <li>• <b>Note:</b> This product is generally resistant to chemical cleaning agents (see ECOLAB). Please do not use cleaning agents of any other Kind., Not resistant against lactic acid &amp; hydrogen peroxide (H2O2)</li> <li>• <b>Application:</b> Hygienic and washdown zones</li> </ul>	DOL-0804-G05MNI	6059194

## 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)