



**WLG4S-3P5234HS06**

W4

PHOTOELECTRIC SENSORS

**SICK**  
Sensor Intelligence.



## Ordering information

Type	part no.
WLG4S-3P5234HS06	1102183

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

Illustration may differ



## 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 filter</b>	Yes						
<b>Emitted beam</b>	<table border="0"> <tr> <td>Light source</td><td>PinPoint LED <sup>2)</sup></td></tr> <tr> <td>Type of light</td><td>Visible red light</td></tr> <tr> <td>Light spot size (distance)</td><td>Ø 45 mm (1.5 m)</td></tr> </table>	Light source	PinPoint LED <sup>2)</sup>	Type of light	Visible red light	Light spot size (distance)	Ø 45 mm (1.5 m)
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>	Light/dark switching via teach-in and ET (when switched off) With external teach (ET) on PIN 2						
<b>Special applications</b>	Hygienic and washdown zones, Detecting transparent objects						
<b>Housing design</b>	Hygiene						
<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
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<b>DC<sub>avg</sub></b>	0 %
<b>Electronics</b>	
<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 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>
<b>Special feature</b>	D12 adapter shaft

<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>y</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 63.2 mm x 22.15 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>	50 g

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

## Ambient data

<b>Enclosure rating</b>	IP66 IP67 IP68 IP69K
<b>Ambient operating temperature</b>	-30 °C ... +70 °C <sup>1)</sup> -30 °C ... +60 °C

<sup>1)</sup> At UV ≤ 24 V and IA < 30 mA.

<b>Ambient temperature, storage</b>	-30 °C ... +75 °C
<b>UL File No.</b>	FDA, UL No. NRKH.E181493 & cUL No. NRKH7.E181493

<sup>1)</sup> At UV ≤ 24 V and IA < 30 mA.

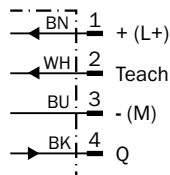
## Certificates

<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>Photobiological safety (DIN EN 62471) certificate</b>	✓

## Classifications

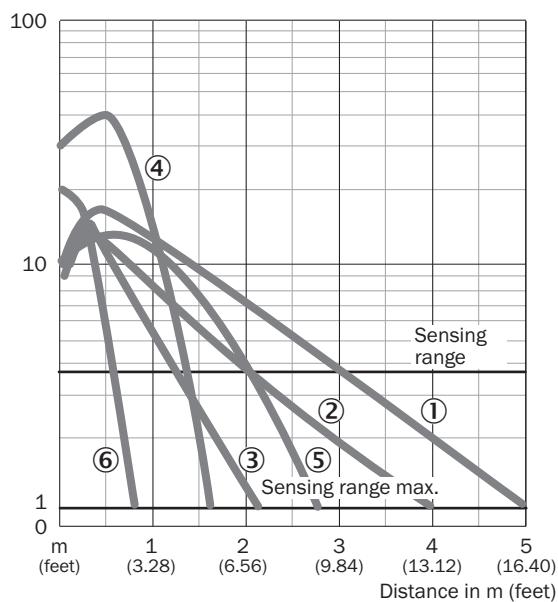
<b>ECLASS 5.0</b>	27270902
<b>ECLASS 5.1.4</b>	27270902
<b>ECLASS 6.0</b>	27270902
<b>ECLASS 6.2</b>	27270902
<b>ECLASS 7.0</b>	27270902
<b>ECLASS 8.0</b>	27270902
<b>ECLASS 8.1</b>	27270902
<b>ECLASS 9.0</b>	27270902
<b>ECLASS 10.0</b>	27270902
<b>ECLASS 11.0</b>	27270902
<b>ECLASS 12.0</b>	27270902
<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



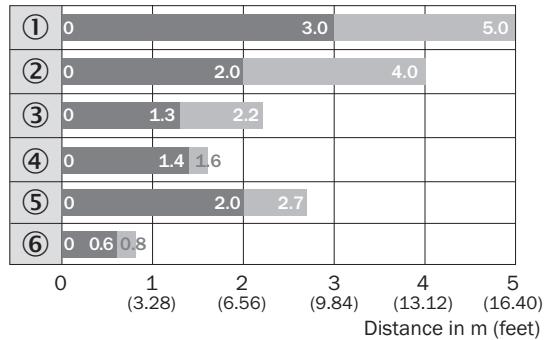
## Characteristic curve WL4S-3, WLG4S-3, 5 m

Operating reserve



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

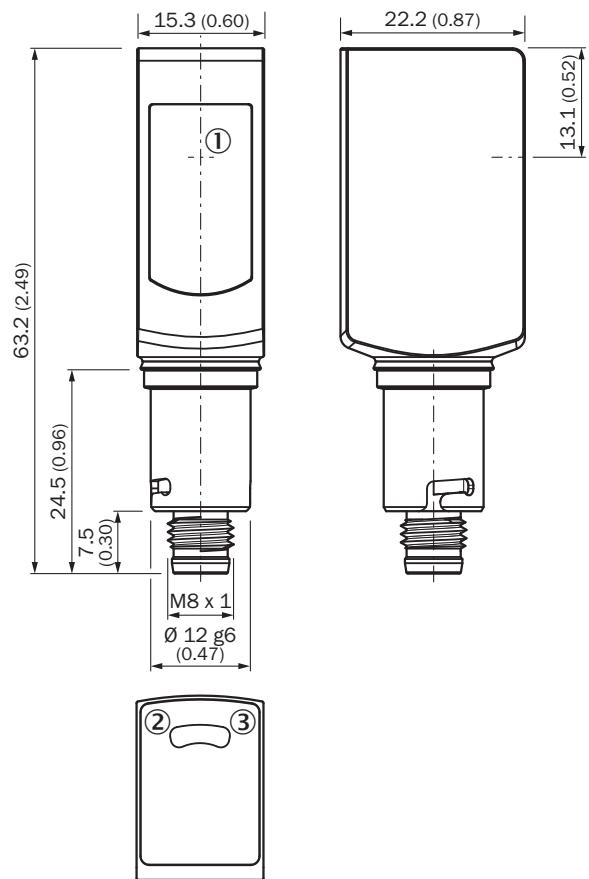
## Sensing range diagram WL4S-3, WLG4S-3, 5 m



■ Sensing range      ■ Sensing range max.

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

Dimensional drawing WL4S-3H, WLG4S-3H, without single teach-in button, D12 adapter shaft, I-adaption



Dimensions in mm (inch)

① Center of optical axis

② LED indicator green: Supply voltage active

③ LED indicator yellow: Status of received light beam

## Recommended accessories

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

Brief description	Type	part no.
connectors and cables		



- **Connection type head A:** Female connector, M8, 4-pin, straight
- **Connection type head B:** Flying leads
- **Signal type:** Sensor/actuator cable
- **Cable:** 5 m, 4-wire, PVC
- **Description:** Sensor/actuator cable, unshielded
- **Connection systems:** Flying leads
- **Note:** 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 & hydrogen peroxide (H2O2)
- **Application:** Uncontaminated zones, Hygienic and washdown zones, Zones with chemicals

DOL-0804-G05MNI

6059194

	<b>Brief description</b>	<b>Type</b>	<b>part no.</b>
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

## 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)