



# WLG4S-3P2432V

W4S-3 Inox Glass

MINIATURE PHOTOELECTRIC SENSORS

**SICK**  
Sensor Intelligence.



### Ordering information

| Type          | Part no. |
|---------------|----------|
| WLG4S-3P2432V | 1054725  |

Other models and accessories → [www.sick.com/W4S-3\\_Inox\\_Glass](http://www.sick.com/W4S-3_Inox_Glass)

Illustration may differ



### Detailed technical data

#### Features

|  |  |
|--|--|
| <b>Dimensions (W x H x D)</b>          | 15.25 mm x 49.2 mm x 22.2 mm                               |
| <b>Housing design (light emission)</b> | Rectangular  |
| <b>Sensing range max.</b>              | 0 m ... 5 m <sup>1)</sup>                                  |
| <b>Sensing range</b>                   | 0 m ... 3 m <sup>1)</sup>                                  |
| <b>Type of light</b>                   | Visible red light  |
| <b>Light source</b>                    | PinPoint LED <sup>2)</sup>                                 |
| <b>Light spot size (distance)</b>      | Ø 45 mm (1.5 m)  |
| <b>Wave length</b>                     | 650 nm   |
| <b>Adjustment</b>                      | Single teach-in button                                     |
| <b>AutoAdapt</b>                       | ✓  |
| <b>Special applications</b>            | Hygienic and washdown zones, Detecting transparent objects |

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

<sup>2)</sup> Average service life: 100,000 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>Current consumption</b>            | 30 mA <sup>3)</sup>                                   |
| <b>Switching output</b>               | PNP   |
| <b>Output function</b>                | Complementary   |
| <b>Switching mode</b>                 | Light/dark switching                                  |
| <b>Output current I<sub>max</sub></b> | ≤ 100 mA  |
| <b>Response time</b>                  | < 0.5 ms <sup>4)</sup>                                |
| <b>Switching frequency</b>            | 1,000 Hz <sup>5)</sup>                                |
| <b>Attenuation along light beam</b>   | > 8 %   |
| <b>Circuit protection</b>             | A <sup>6)</sup><br>B <sup>7)</sup><br>C <sup>8)</sup> |
| <b>Protection class</b>               | III   |
| <b>Weight</b>                         | 45 g  |
| <b>Polarisation filter</b>            | ✓   |
| <b>Housing material</b>               | Stainless steel, Stainless steel V4A (1.4404, 316L)   |
| <b>Optics material</b>                | Plastic, PMMA   |
| <b>Enclosure rating</b>               | IP66<br>IP67<br>IP68<br>IP69K                         |
| <b>Ambient operating temperature</b>  | -30 °C ... +60 °C <sup>9)</sup>                       |
| <b>Ambient temperature, storage</b>   | -30 °C ... +75 °C                                     |

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

<sup>2)</sup> May not exceed or fall below 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.

<sup>9)</sup> At UV ≤ 24 V and IA < 30 mA.

## Safety-related parameters

|                                     |             |
|-------------------------------------|-------------|
| <b>MTTF<sub>D</sub></b>             | 1,215 years |
| <b>DC<sub>avg</sub></b>             | 0 %         |
| <b>T<sub>M</sub> (mission time)</b> | 20 years    |

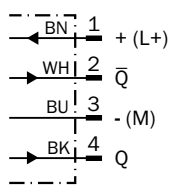
## Classifications

|                     |          |
|---------------------|----------|
| <b>ECl@ss 5.0</b>   | 27270902 |
| <b>ECl@ss 5.1.4</b> | 27270902 |
| <b>ECl@ss 6.0</b>   | 27270902 |
| <b>ECl@ss 6.2</b>   | 27270902 |
| <b>ECl@ss 7.0</b>   | 27270902 |

|                       |          |
|-----------------------|----------|
| <b>ECl@ss 8.0</b>     | 27270902 |
| <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>ETIM 8.0</b>       | EC002717 |
| <b>UNSPSC 16.0901</b> | 39121528 |

### Connection diagram

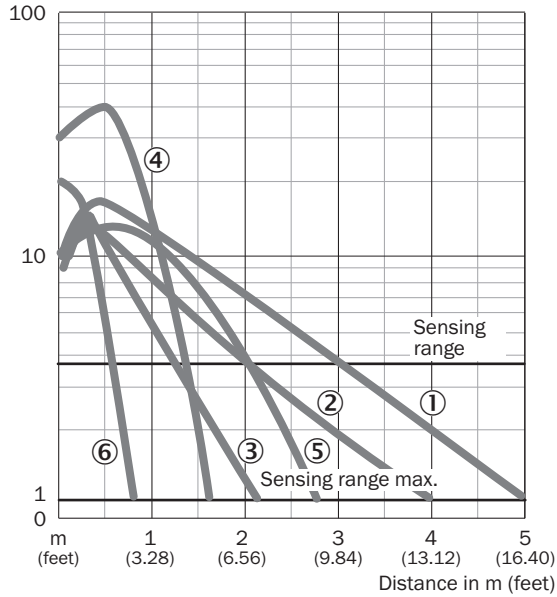
Cd-083



### Characteristic curve

WL4S-3, WLG4S-3, 5 m

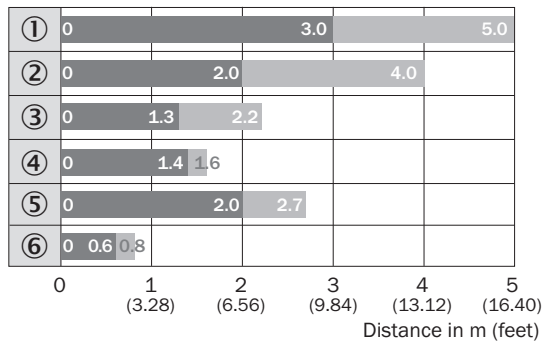
Operating reserve



- 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

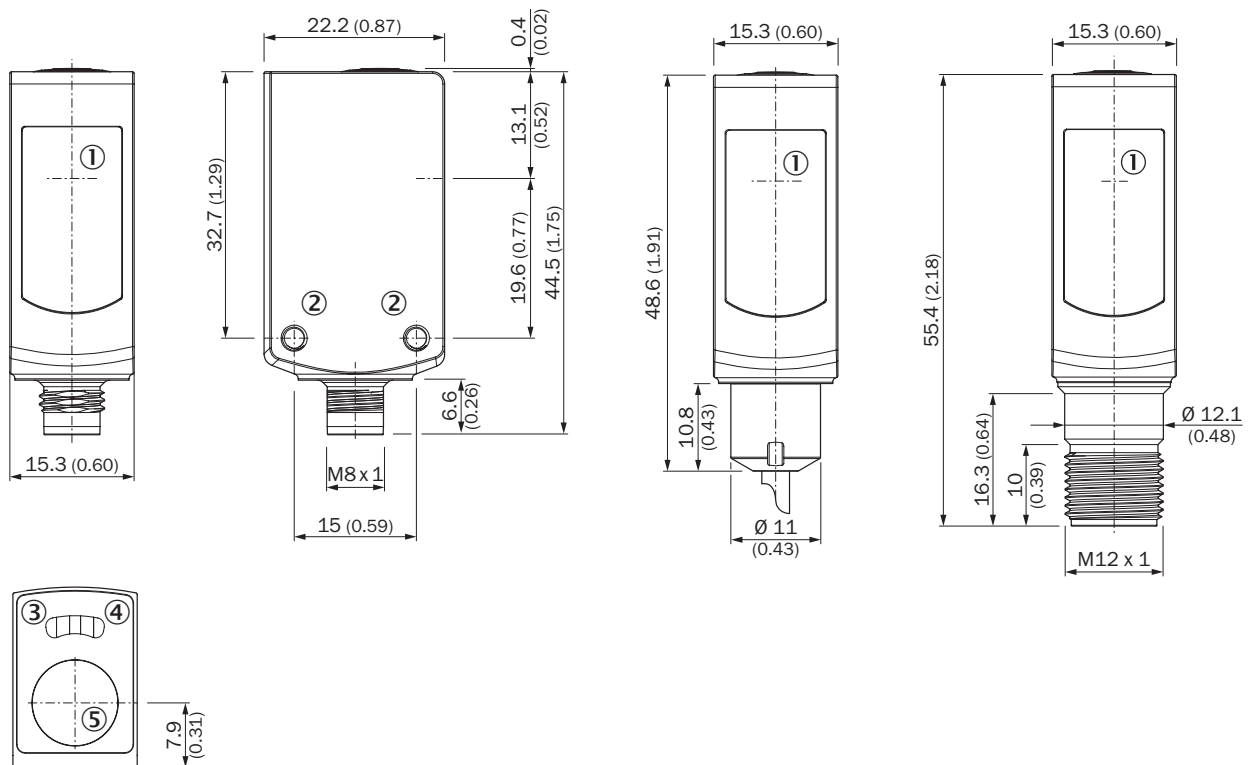


■ Sensing range      ■ Sensing range max.

- ① Reflector PL80A
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### Dimensional drawing (Dimensions in mm (inch))

WL4S-3V, WLG4S-3V, with single teach-in button



- 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

Mounting brackets and plates

Mounting brackets

Plug connectors and cables

Connecting cables

Reflectors

Special reflectors

Other models and accessories → [www.sick.com/W4S-3\\_Inox\\_Glass](http://www.sick.com/W4S-3_Inox_Glass)

| Brief description   | Type     | Part no. |
|---|----------|----------|
| <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> W4-3</li> </ul> | BEF-W4-B | 2051630  |

| Brief description  | Type            | Part no. |
|--|-----------------|----------|
| <ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Female connector, M12, 4-pin, straight</li> <li>• <b>Connection type head B:</b> Flying leads</li> <li>• <b>Authorizations:</b> Ecolab</li> <li>• <b>Signal type:</b> Sensor/actuator cable</li> <li>• <b>Cable:</b> 5 m, 4-wire, PP</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) and other chemical compounds such as H2O2 and CH2O2. Before permanent installation is carried out, the material's resistance to the cleaning agent being used must be checked., Resistant against lactic acid &amp; hydrogen peroxide (H2O2)</li> <li>• <b>Application:</b> Hygienic and washdown zones, Drag chain operation</li> </ul> | DOL-1204-G05MRN | 6058476  |
| Brief description  | Type            | Part no. |
| <ul style="list-style-type: none"> <li>• <b>Description:</b> Chemically resistant, screw connection</li> <li>• <b>Dimensions:</b> 52 mm 62 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)