



**WSE4S-3P2430V**

W4S-3 Inox

**MINIATURE PHOTOELECTRIC SENSORS**

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

| Type          | Part no. |
|---------------|----------|
| WSE4S-3P2430V | 1054784  |

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

### Detailed technical data

#### Features

|  |                                   |
|--|-----------------------------------|
| <b>Sensor/ detection principle</b>     | Through-beam photoelectric sensor |
| <b>Dimensions (W x H x D)</b>          | 15.25 mm x 49.2 mm x 22.2 mm      |
| <b>Housing design</b>                  | Washdown                          |
| <b>Housing design (light emission)</b> | Rectangular                       |
| <b>Sensing range max.</b>              | 0 m ... 5 m                       |
| <b>Sensing range</b>                   | 0 m ... 4.5 m                     |
| <b>Type of light</b>                   | Visible red light                 |
| <b>Light source</b>                    | PinPoint LED <sup>1)</sup>        |
| <b>Light spot size (distance)</b>      | Ø 50 mm (2 m)                     |
| <b>Wave length</b>                     | 650 nm                            |
| <b>Adjustment</b>                      | None                              |
| <b>Special applications</b>            | Hygienic and washdown zones       |

<sup>1)</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>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>3)</sup>                                |
| <b>Switching frequency</b>                  | 200 Hz <sup>4)</sup>                                  |
| <b>Connection type</b>                      | Male connector M12, 4-pin <sup>5)</sup>               |
| <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>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>Test input sender off</b>                | TE to 0 V   |
| <b>Ambient operating temperature</b>        | -30 °C ... +70 °C <sup>9)</sup>                       |
| <b>Ambient temperature, storage</b>         | -30 °C ... +75 °C                                     |
| <b>UL File No.</b>                          | NRKH.E181493 & NRKH7.E181493                          |
| <b>Part number of individual components</b> | 2060942 WS4S-3D2430V 2060945 WE4S-3P2430V             |

<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> Signal transit time with resistive load.

<sup>4)</sup> With light/dark ratio 1:1.

<sup>5)</sup> Max. tightening torque: 0.7 Nm.

<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> | 1,044 years |
| <b>DC<sub>avg</sub></b> | 0 %         |

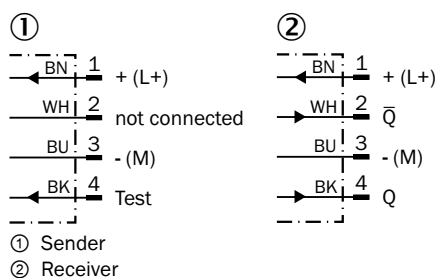
## Classifications

|                     |          |
|---------------------|----------|
| <b>ECl@ss 5.0</b>   | 27270901 |
| <b>ECl@ss 5.1.4</b> | 27270901 |
| <b>ECl@ss 6.0</b>   | 27270901 |
| <b>ECl@ss 6.2</b>   | 27270901 |
| <b>ECl@ss 7.0</b>   | 27270901 |

|                       |          |
|-----------------------|----------|
| <b>ECl@ss 8.0</b>     | 27270901 |
| <b>ECl@ss 8.1</b>     | 27270901 |
| <b>ECl@ss 9.0</b>     | 27270901 |
| <b>ECl@ss 10.0</b>    | 27270901 |
| <b>ECl@ss 11.0</b>    | 27270901 |
| <b>ETIM 5.0</b>       | EC002716 |
| <b>ETIM 6.0</b>       | EC002716 |
| <b>ETIM 7.0</b>       | EC002716 |
| <b>ETIM 8.0</b>       | EC002716 |
| <b>UNSPSC 16.0901</b> | 39121528 |

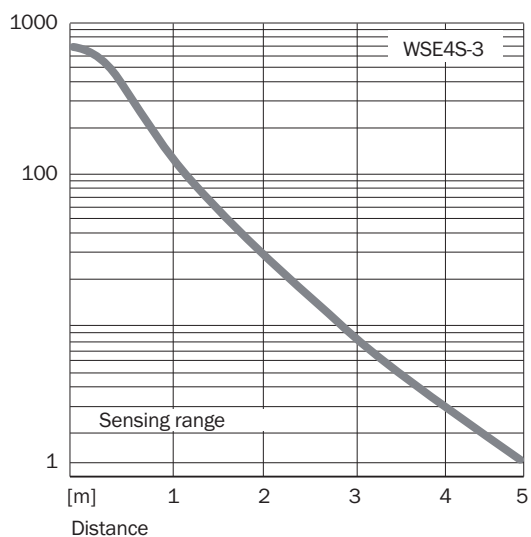
## Connection diagram

Cd-072



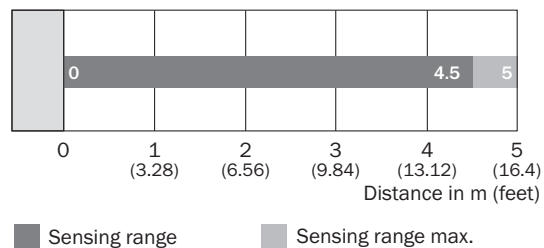
## Characteristic curve

WSE4S-3V, WSE4S-3H



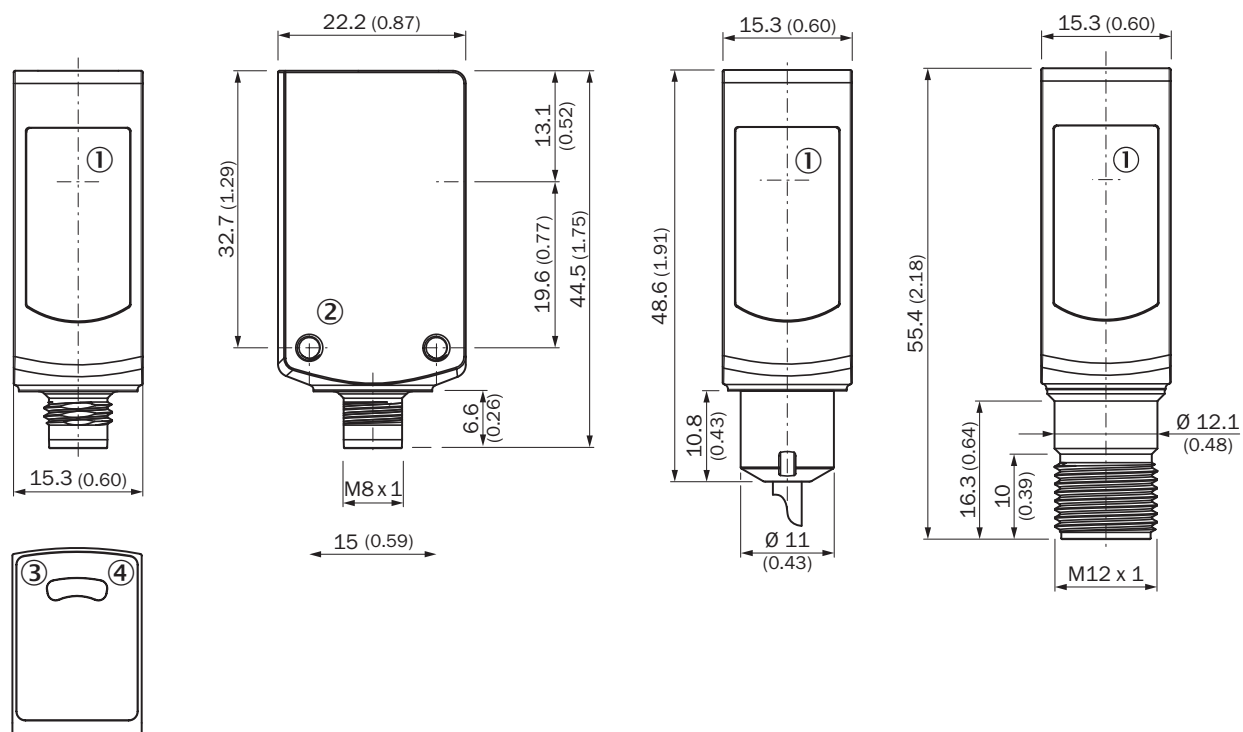
### Sensing range diagram

WSE4S-3





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

WL4S-3V, WLG4S-3V, without single teach-in button



Recommended accessories

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

|   | Brief description  | Type            | Part no. |
|---|--|-----------------|----------|
| <b>Mounting brackets and plates</b>   |  |                 |          |
|  | Mounting bracket for floor mounting, Stainless steel 1.4571, mounting hardware included  | BEF-W4-B        | 2051630  |
| <b>Plug connectors and cables</b>   |  |                 |          |
|  | Head A: female connector, M12, 4-pin, straight<br>Head B: Flying leads<br>Cable: Sensor/actuator cable, PP, unshielded, 5 m<br>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 & hydrogen peroxide (H2O2) | DOL-1204-G05MRN | 6058476  |

## 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.”

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