



# WSE4T-3P1430

W4-3 PTFE

MINIATURE PHOTOELECTRIC SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ

### Ordering information

| Type         | Part no. |
|--------------|----------|
| WSE4T-3P1430 | 1029646  |

Other models and accessories → [www.sick.com/W4-3\\_PTFE](http://www.sick.com/W4-3_PTFE)



### Detailed technical data

#### Features

|  |                                   |
|--|-----------------------------------|
| <b>Sensor/ detection principle</b>     | Through-beam photoelectric sensor |
| <b>Dimensions (W x H x D)</b>          | 22 mm x 42 mm x 21.8 mm           |
| <b>Housing design (light emission)</b> | Rectangular                       |
| <b>Sensing range max.</b>              | 0 m ... 3 m                       |
| <b>Sensing range</b>                   | 0 m ... 2.5 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 75 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>J</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>                    | 20 mA <sup>3) 4)</sup>                                 |
| <b>Switching output</b>                     | PNP  |
| <b>Switching mode</b>                       | Light switching  |
| <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>                      | Cable, 3-wire, 5 m <sup>7)</sup>                       |
| <b>Cable material</b>                       | PVC/PTFE coating                                       |
| <b>Conductor cross-section</b>              | 0.14 mm <sup>2</sup>                                   |
| <b>Cable diameter</b>                       | Ø 3.4 mm   |
| <b>Circuit protection</b>                   | A <sup>8)</sup><br>C <sup>9)</sup><br>D <sup>10)</sup> |
| <b>Protection class</b>                     | III  |
| <b>Weight</b>                               | 30 g   |
| <b>Housing material</b>                     | PTFE coating, PTFE                                     |
| <b>Optics material</b>                      | Plastic, PMMA  |
| <b>Enclosure rating</b>                     | IP68<br>IP69K  |
| <b>Test input sender off</b>                | TE to 0 V  |
| <b>Ambient operating temperature</b>        | -40 °C ... +60 °C                                      |
| <b>Ambient storage temperature</b>          | -40 °C ... +75 °C                                      |
| <b>UL File No.</b>                          | NRKH.E181493 & NRKH7.E181493                           |
| <b>Part number of individual components</b> | 2040565 WS4T-3D1430 2040566 WE4T-3P1430                |

- 1) Limit values.
- 2) May not exceed or fall below U<sub>v</sub> tolerances.
- 3) Sender.
- 4) Receiver.
- 5) Signal transit time with resistive load.
- 6) With light/dark ratio 1:1.
- 7) Do not bend below 0 °C.
- 8) A = V<sub>S</sub> connections reverse-polarity protected.
- 9) C = interference suppression.
- 10) D = outputs overcurrent and short-circuit protected.

Safety-related parameters

|                         |             |
|-------------------------|-------------|
| <b>MTTF<sub>D</sub></b> | 1,008 years |
| <b>DC<sub>avg</sub></b> | 0%          |

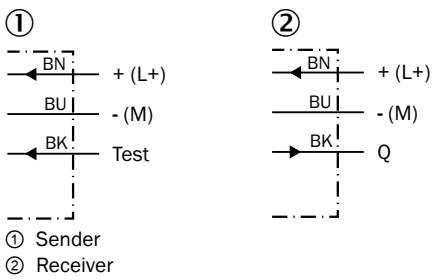
Classifications

|                     |          |
|---------------------|----------|
| <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>UNSPSC 16.0901</b> | 39121528 |

Connection diagram

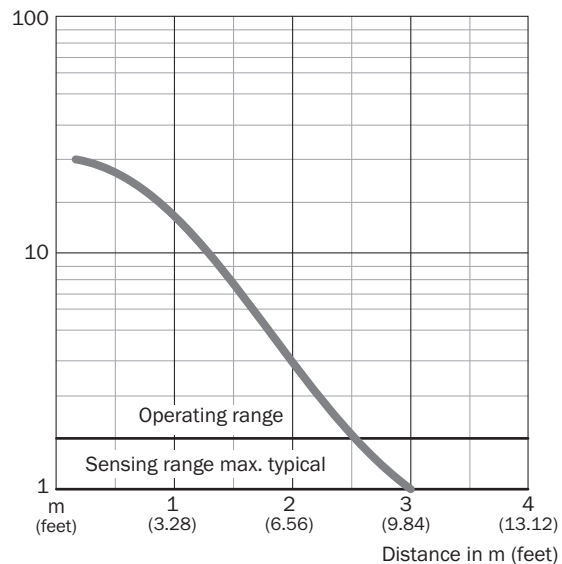
Cd-061



### Characteristic curve

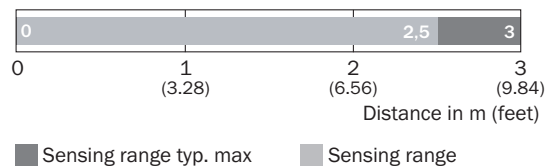
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Operating reserve



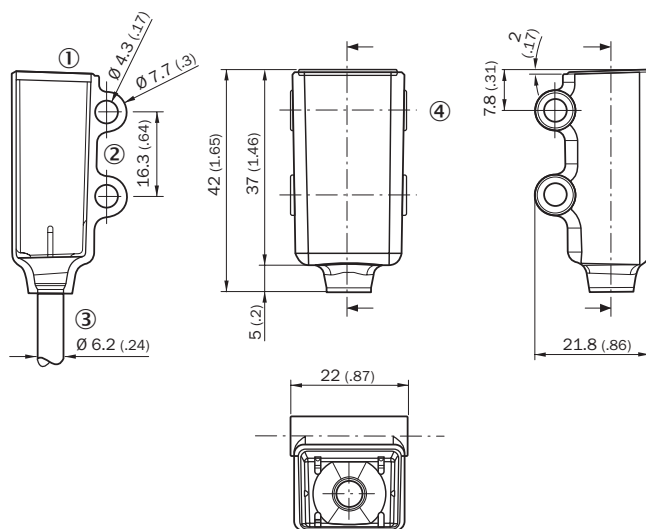
### Sensing range diagram

WSE4-3 PTFE



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


Wx4-3, PTFE



- ① LED signal
- ② Mounting hole,  $\varnothing 4.3$  mm
- ③ Cable 5 m,  $\varnothing 3.4$  mm, 2 m Teflon coated  $\varnothing 6.2$
- ④ Optical axis, receiver
- ⑤ Optical axis, sender

**Recommended accessories**

Other models and accessories → [www.sick.com/W4-3\\_PTFE](http://www.sick.com/W4-3_PTFE)

|   | Brief description   | Type       | Part no. |
|---|---|------------|----------|
| Plug connectors and cables  |   |            |          |
|  | Head A: male connector, M8, 3-pin, straight<br>Head B: -<br>Cable: unshielded | STE-0803-G | 6037322  |

## 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)