# WSE4-3P3130

W4

**PHOTOELECTRIC SENSORS**

**SICK**
Sensor Intelligence.

# WSE4-3P3130 | W4

## PHOTOELECTRIC SENSORS

## Ordering information

| Type | part no. |
|---|---|
| WSE4-3P3130 | 1028161 |

Other models and accessories ➜ www.sick.com/W4

Illustration may differ

## Detailed technical data

### Features

| | |
|---|---|
| **Functional principle** | Through-beam photoelectric sensor |
| **Sensing range max.** | 0 m … 4 m |
| **Sensing range** | 0 m … 3.5 m |
| **Emitted beam** | |
| Light source | PinPoint LED [1] |
| Type of light | Visible red light |
| Light spot size (distance) | Ø 75 mm (2 m) |
| **Key LED figures** | |
| Wave length | 650 nm |
| **Adjustment** | None |
| **Part number of individual components** | 2038952 WS4-3D3130 2038953 WE4-3P3130 |

[1] Average service life: 100,000 h at $T_U$ = +25 °C.

### Safety-related parameters

| | |
|---|---|
| **MTTF$_D$** | 1,103 years |
| **DC$_{avg}$** | 0 % |

## Electronics

| | |
|---|---|
| **Supply voltage $U_B$** | 10 V DC ... 30 V DC [1] |
| **Ripple** | < 5 $V_{pp}$ [2] |
| **Current consumption** | 20 mA [3] |
| **Protection class** | III |
| **Digital output** | |
| Type | PNP |
| Switching mode | Light switching |
| Output current $I_{max.}$ | ≤ 100 mA |
| Response time | < 0.5 ms [4] |
| Switching frequency | 1,000 Hz [5] |
| **Circuit protection** | A [6] <br> C [7] <br> D [8] |
| **Test input sender off** | TE to 0 V |

[1] Limit values.

[2] May not fall below or exceed $U_V$ tolerances.

[3] Sender.

[4] Signal transit time with resistive load.

[5] With light/dark ratio 1:1.

[6] A = $V_S$ connections reverse-polarity protected.

[7] C = interference suppression.

[8] D = outputs overcurrent and short-circuit protected.

## Mechanics

| | |
|---|---|
| **Housing** | Rectangular |
| **Design detail** | Flat |
| **Dimensions (W x H x D)** | 16 mm x 39.5 mm x 12 mm |
| **Connection** | Cable with connector M8, 3-pin [1] |
| **Connection detail** | |
| Conductor size | 0.14 mm² |
| Cable diameter | Ø 3.4 mm |
| Length of cable (L) | 100 mm [1] |
| **Material** | |
| Housing | Plastic, ABS |
| Front screen | Plastic, PMMA |
| Cable | Plastic, PVC |
| **Weight** | 60 g |

[1] Do not bend below 0 °C.

## Ambient data

| | |
|---|---|
| **Enclosure rating** | IP67 <br> IP66 |
| **Ambient operating temperature** | –40 °C ... +60 °C |
| **Ambient temperature, storage** | –40 °C ... +75 °C |

| UL File No. | NRKH.E181493 & NRKH7.E181493 |
|---|---|

## Certificates

| | |
|---|---|
| **EU declaration of conformity** | ✓ |
| **UK declaration of conformity** | ✓ |
| **ACMA declaration of conformity** | ✓ |
| **Moroccan declaration of conformity** | ✓ |
| **China RoHS** | ✓ |
| **ECOLAB certificate** | ✓ |
| **Photobiological safety (DIN EN 62471) certificate** | ✓ |

## Classifications

| | |
|---|---|
| **ECLASS 5.0** | 27270901 |
| **ECLASS 5.1.4** | 27270901 |
| **ECLASS 6.0** | 27270901 |
| **ECLASS 6.2** | 27270901 |
| **ECLASS 7.0** | 27270901 |
| **ECLASS 8.0** | 27270901 |
| **ECLASS 8.1** | 27270901 |
| **ECLASS 9.0** | 27270901 |
| **ECLASS 10.0** | 27270901 |
| **ECLASS 11.0** | 27270901 |
| **ECLASS 12.0** | 27270901 |
| **ETIM 5.0** | EC002716 |
| **ETIM 6.0** | EC002716 |
| **ETIM 7.0** | EC002716 |
| **ETIM 8.0** | EC002716 |
| **UNSPSC 16.0901** | 39121528 |

## Connection type
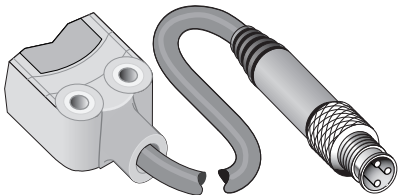
## Connection diagram Cd-069

① sender
② receiver
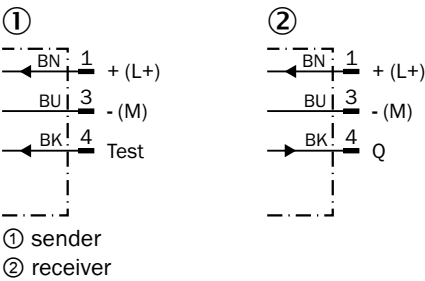
## Characteristic curve WSE4-3

Operating reserve



Distance in m (feet)
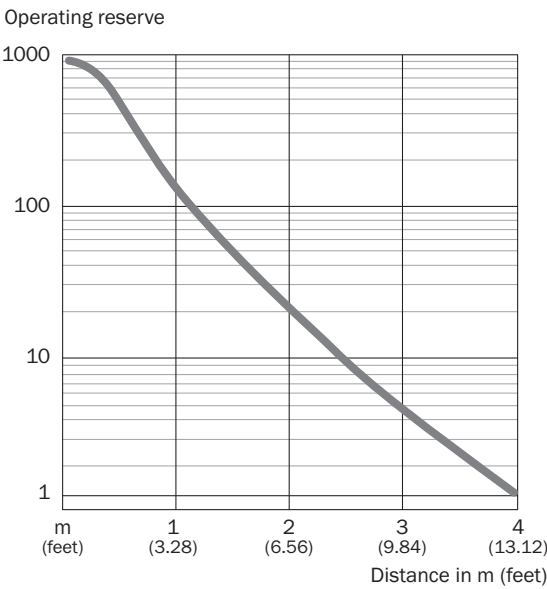
## Sensing range diagram WSE4-3



Distance in m (feet)

■ Sensing range typ. max    ■ Sensing range
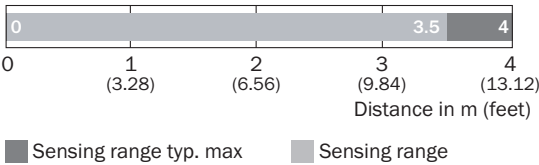
## Dimensional drawing WSE4-3
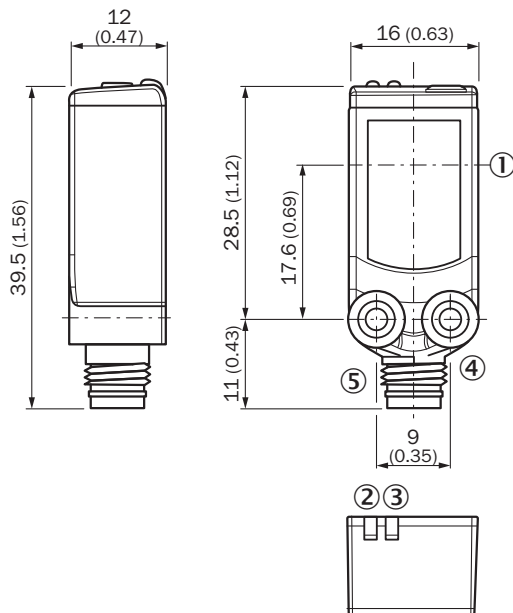
Dimensions in mm (inch)
① Center of optical axis
② Orange LED indicator: status of received light beam
③ LED indicator green: Supply voltage active
④ Threaded mounting hole M3
⑤ Connection

## Recommended accessories

Other models and accessories ➜ www.sick.com/W4

| Brief description | Type | part no. |
|---|---|---|
| **Mounting systems** | | |
| • **Description:** Plate N08 for universal clamp bracket<br>• **Material:** Steel, zinc diecast<br>• **Details:** Zinc plated steel (sheet), Zinc die cast (clamping bracket)<br>• **Items supplied:** Universal clamp (5322626), mounting hardware<br>• **Usable for:** W100, W150, W4S, W4F, W8, W9-3, W8G, W8 Laser, W8 Inox, G6, W100 Laser, W100-2, W10, G6 Inox, RAY10, W4SLG-3, W9, GR18, MultiPulse, Reflex Array, MultiLine, LUT3, KT5, KT8, KT10, CS8 | BEF-KHS-N08 | 2051607 |
| • **Description:** Mounting bracket for wall mounting<br>• **Material:** Stainless steel<br>• **Details:** Stainless steel 1.4571<br>• **Items supplied:** Mounting hardware included<br>• **Suitable for:** W4S, W4F, W4S | BEF-W4-A | 2051628 |
| • **Description:** Mounting bracket for floor mounting<br>• **Material:** Stainless steel<br>• **Details:** Stainless steel 1.4571<br>• **Items supplied:** Mounting hardware included<br>• **Suitable for:** W4S, W4F, W4S | BEF-W4-B | 2051630 |
| • **Description:** Plate N11N for universal clamp bracket<br>• **Material:** Stainless steel<br>• **Details:** Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)<br>• **Items supplied:** Universal clamp (5322627), mounting hardware<br>• **Usable for:** DeltaPac, Glare, WTD20E | BEF-KHS-N11N | 2071081 |
| **connectors and cables** | | |
| • **Connection type head A:** Male connector, M8, 3-pin, straight, A-coded<br>• **Description:** Unshielded<br>• **Connection systems:** Screw-type terminals<br>• **Permitted cross-section:** 0.14 mm² ... 0.5 mm² | STE-0803-G | 6037322 |
| • **Connection type head A:** Female connector, M8, 3-pin, straight, A-coded<br>• **Connection type head B:** Flying leads<br>• **Signal type:** Sensor/actuator cable<br>• **Cable:** 5 m, 3-wire, PVC<br>• **Description:** Sensor/actuator cable, unshielded<br>• **Application:** Zones with chemicals, Uncontaminated zones | YF8U13-050VA1XLEAX | 2095884 |
| • **Connection type head A:** Female connector, M8, 3-pin, straight, A-coded<br>• **Connection type head B:** Flying leads<br>• **Signal type:** Sensor/actuator cable<br>• **Cable:** 5 m, 3-wire, PUR, halogen-free<br>• **Description:** Sensor/actuator cable, unshielded<br>• **Application:** Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation | YF8U13-050UA1XLEAX | 2094788 |

# 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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