



WSE2S-2P3230

W2S-2

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

| Type | Part no. |
|--------------|----------|
| WSE2S-2P3230 | 1063650 |

Other models and accessories → www.sick.com/W2S-2

Detailed technical data

Features

| | |
|--|-----------------------------------|
| Sensor/ detection principle | Through-beam photoelectric sensor |
| Dimensions (W x H x D) | 7.7 mm x 21.8 mm x 13.5 mm |
| Housing design (light emission) | Rectangular |
| Sensing range max. | 0 m ... 2.5 m |
| Sensing range | 0 m ... 2 m |
| Type of light | Visible red light |
| Light source | PinPoint LED ¹⁾ |
| Light spot size (distance) | Ø 65 mm (1,500 mm) |
| Wave length | 640 nm |
| Adjustment | None |

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

Mechanics/electronics

| | |
|-----------------------|-----------------------------------|
| Supply voltage | 10 V DC ... 30 V DC ¹⁾ |
| Ripple | ≤ 5 V _{pp} ²⁾ |

¹⁾ Limit values.

²⁾ May not exceed or fall below U_V tolerances.

³⁾ Without load.

⁴⁾ Signal transit time with resistive load.

⁵⁾ With light/dark ratio 1:1.

⁶⁾ Do not bend below 0 °C.

⁷⁾ A = V_S connections reverse-polarity protected.

⁸⁾ B = output reverse-polarity protected.

⁹⁾ D = outputs overcurrent and short-circuit protected.

| | |
|---|---|
| Power consumption | ≤ 20 mA ³⁾ |
| Switching output | PNP |
| Switching mode | Light/dark switching |
| Output current I_{max} | < 50 mA |
| Response time | < 0.4 ms ⁴⁾ |
| Switching frequency | 1,200 Hz ⁵⁾ |
| Connection type | Cable with M8 male connector, 4-pin, 200 mm ⁶⁾ |
| Cable material | PVC |
| Cable diameter | Ø 3 mm |
| Circuit protection | A ⁷⁾ B ⁸⁾ D ⁹⁾ |
| Housing material | Plastic, ABS/PC |
| Optics material | Plastic, PMMA |
| Enclosure rating | IP67 |
| Ambient operating temperature | -25 °C ... +50 °C |
| Ambient storage temperature | -40 °C ... +75 °C |
| UL File No. | NRKH.E181493 |
| Part number of individual components | 2069152 WS2S-2D3230 2069153 WE2S-2P3230 |

¹⁾ Limit values.

²⁾ May not exceed or fall below U_y tolerances.

³⁾ Without load.

⁴⁾ Signal transit time with resistive load.

⁵⁾ With light/dark ratio 1:1.

⁶⁾ Do not bend below 0 °C.

⁷⁾ A = V_S connections reverse-polarity protected.

⁸⁾ B = output reverse-polarity protected.

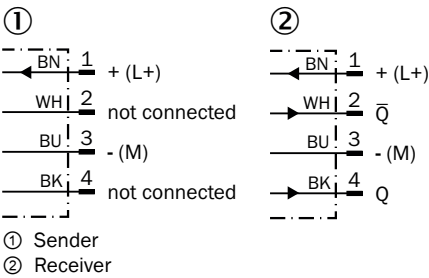
⁹⁾ D = outputs overcurrent and short-circuit protected.

Classifications

| | |
|-----------------------|----------|
| ECI@ss 5.0 | 27270901 |
| ECI@ss 5.1.4 | 27270901 |
| ECI@ss 6.0 | 27270901 |
| ECI@ss 6.2 | 27270901 |
| ECI@ss 7.0 | 27270901 |
| ECI@ss 8.0 | 27270901 |
| ECI@ss 8.1 | 27270901 |
| ECI@ss 9.0 | 27270901 |
| ETIM 5.0 | EC002716 |
| ETIM 6.0 | EC002716 |
| UNSPSC 16.0901 | 39121528 |

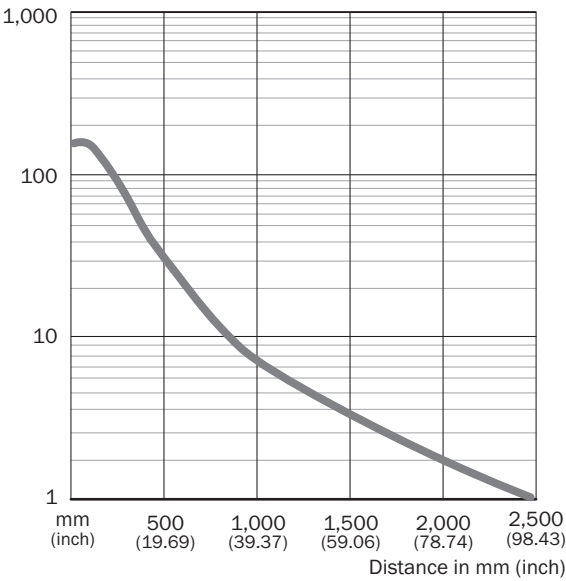
Connection diagram

Cd-085



Characteristic curve

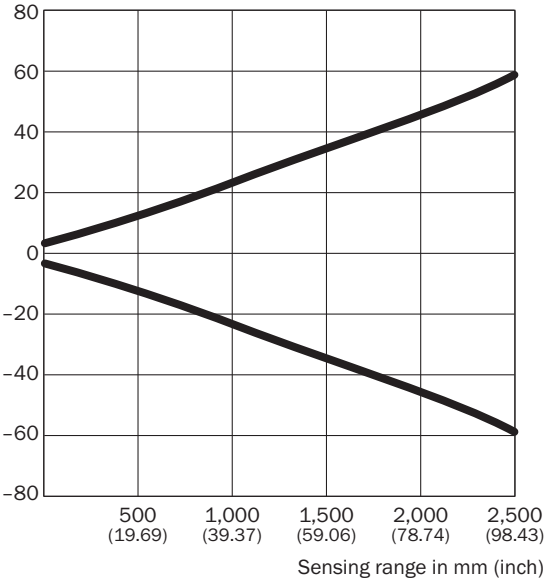
WSE2S-2



Light spot size

WSE2S-2

Spot diameter in mm (inch)

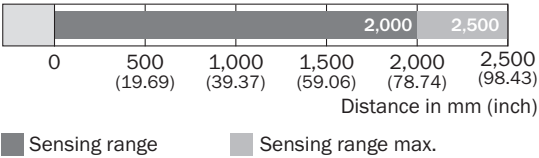


Dimensions in mm (inch)

| Sensing range | Spot diameter |
|------------------|-----------------|
| 10 (0.39) | 4.0 (0.16) |
| 250 (9.84) | 13.0 (0.51) |
| 500 (19.69) | 23.0 (0.91) |
| 1,000 (39.37) | 45.0 (1.77) |
| 1,500 (59.06) | 65.0 (2.56) |
| 2,500 (98.43) | 116.0 (4.57) |

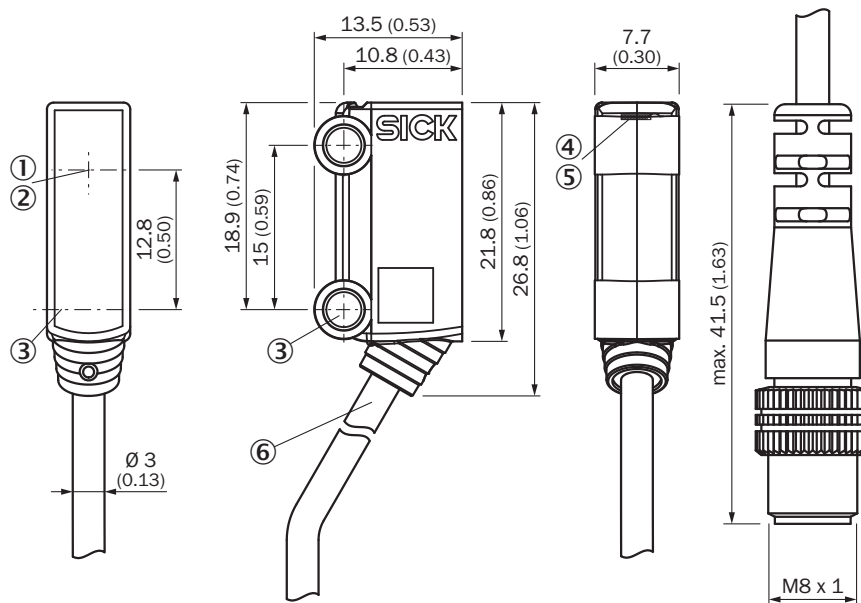
Sensing range diagram

WSE2S-2



Dimensional drawing (Dimensions in mm (inch))




WSE2S-2




- ① Optical axis, receiver
- ② Optical axis, sender
- ③ Middle axis fixing hole Ø 3.2 mm
- ④ LED indicator green: power on
- ⑤ LED indicator yellow: Status of received light beam
- ⑥ Connection

Recommended accessories

Other models and accessories → www.sick.com/W2S-2

| | Brief description | Type | Part no. |
|---|---|--------------------|----------|
| Mounting brackets and plates | | | |
| | Mounting bracket for floor mounting, steel, zinc coated, without mounting hardware | BEF-W2S-A | 4034748 |
|  | Mounting bracket for wall mounting, steel, zinc coated, without mounting hardware | BEF-W2S-B | 4034749 |
| Terminal and alignment brackets | | | |
|  | Ball clamp bracket, Plastic, mounting hardware included | BEF-GH-MINI01 | 2023160 |
| Plug connectors and cables | | | |
|  | Head A: female connector, M8, 4-pin, straight, A-coded Head B: open cable ends Cable: Sensor/actuator cable, PVC, unshielded, 2 m | YF8U14-020VA3XLEAX | 2095888 |
| | Head A: female connector, M8, 4-pin, straight, A-coded Head B: open cable ends Cable: Sensor/actuator cable, PVC, unshielded, 5 m | YF8U14-050VA3XLEAX | 2095889 |

| | Brief description | Type | Part no. |
|---|---|--------------------|----------|
|  | Head A: female connector, M8, 4-pin, angled, A-coded Head B: open cable ends Cable: Sensor/actuator cable, PVC, unshielded, 2 m | YG8U14-020VA3XLEAX | 2095962 |
| | Head A: female connector, M8, 4-pin, angled, A-coded Head B: open cable ends Cable: Sensor/actuator cable, PVC, unshielded, 5 m | YG8U14-050VA3XLEAX | 2095963 |

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