



# WSE2S-2P3230

W2S-2

PHOTOELECTRIC SENSORS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	Part no.
WSE2S-2P3230	1063650

Other models and accessories → [www.sick.com/W2S-2](http://www.sick.com/W2S-2)

Illustration may differ



### Detailed technical data

#### Features

<b>Sensor/detection principle</b>	Through-beam photoelectric sensor
<b>Dimensions (W x H x D)</b>	7.7 mm x 21.8 mm x 13.5 mm
<b>Housing design (light emission)</b>	Rectangular
<b>Sensing range max.</b>	0 m ... 2.5 m
<b>Sensing range</b>	0 m ... 2 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 65 mm (1,500 mm)
<b>Wave length</b>	640 nm
<b>Adjustment</b>	None

<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>

<sup>1)</sup> Limit values.

<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> Do not bend below 0 °C.

<sup>7)</sup> A = V<sub>S</sub> connections reverse-polarity protected.

<sup>8)</sup> B = output reverse-polarity protected.

<sup>9)</sup> D = outputs overcurrent and short-circuit protected.

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

1) Limit values.

2) May not exceed or fall below U<sub>v</sub> 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<sub>S</sub> connections reverse-polarity protected.

8) B = output reverse-polarity protected.

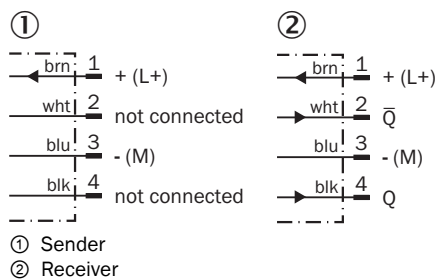
9) D = outputs overcurrent and short-circuit protected.

## Classifications

<b>ECI@ss 5.0</b>	27270901
<b>ECI@ss 5.1.4</b>	27270901
<b>ECI@ss 6.0</b>	27270901
<b>ECI@ss 6.2</b>	27270901
<b>ECI@ss 7.0</b>	27270901
<b>ECI@ss 8.0</b>	27270901
<b>ECI@ss 8.1</b>	27270901
<b>ECI@ss 9.0</b>	27270901
<b>ETIM 5.0</b>	EC002716
<b>ETIM 6.0</b>	EC002716
<b>UNSPSC 16.0901</b>	39121528

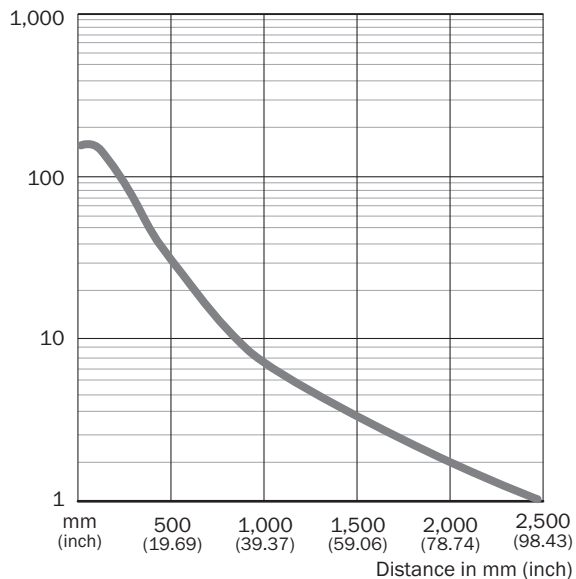
### Connection diagram

Cd-085



### Characteristic curve

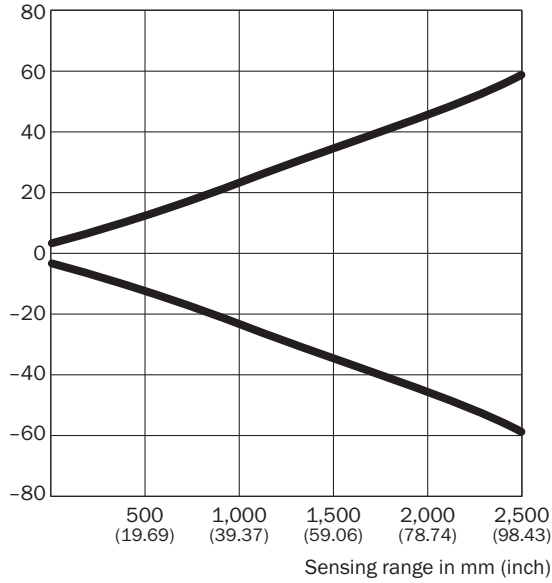
WSE2S-2



### Light spot size

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Spot diameter in mm (inch)

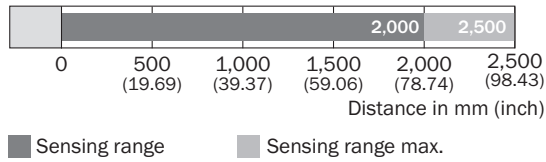


### Dimensions in mm (inch)

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

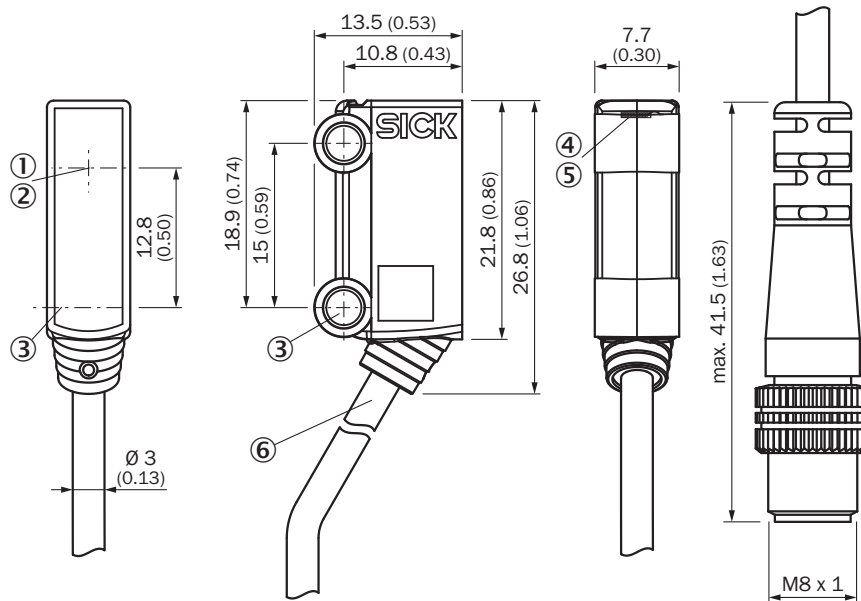
### Sensing range diagram

WSE2S-2



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




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- 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](http://www.sick.com/W2S-2)

	Brief description	Type	Part no.
<b>Mounting brackets and plates</b>			
	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
<b>Terminal and alignment brackets</b>			
	Ball clamp bracket, Plastic, mounting hardware included	BEF-GH-MINI01	2023160
<b>Plug connectors and cables</b>			
	Head A: female connector, M8, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-0804-G02M	6009870
	Head A: female connector, M8, 4-pin, straight Head B: cable Cable: PVC, unshielded, 5 m	DOL-0804-G05M	6009872

	Brief description	Type	Part no.
	Head A: female connector, M8, 4-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-0804-W02M	6009871
	Head A: female connector, M8, 4-pin, angled Head B: cable Cable: PVC, unshielded, 5 m	DOL-0804-W05M	6009873

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Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

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