

WSE2S-2P3230

W2

**PHOTOELECTRIC SENSORS** 





### Ordering information

Туре	part no.
WSE2S-2P3230	1063650

Included in delivery: SCREW SET W2S/G2S (1)

Other models and accessories → www.sick.com/W2

Illustration may differ



#### Detailed technical data

#### **Features**

Functional 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 <sup>1)</sup>
Light spot size (distance)	Ø 65 mm (1,500 mm)
Wave length	640 nm
Adjustment	None

 $<sup>^{1)}</sup>$  Average service life: 100,000 h at  $T_{U}$  = +25 °C.

### Mechanics/electronics

Supply voltage U <sub>B</sub>	10 V DC 30 V DC <sup>1)</sup>
Ripple	< 5 V <sub>pp</sub> <sup>2)</sup>
Current consumption	20 mA <sup>3)</sup>

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

 $<sup>^{2)}\,\</sup>mbox{May}$  not fall below or exceed  $\mbox{U}_{\mbox{\scriptsize V}}$  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.

Switching output	PNP
Switching mode	Light/dark switching
Output current I <sub>max.</sub>	≤ 50 mA
Response time	< 0.4 ms <sup>4)</sup>
Switching frequency	1,200 Hz <sup>5)</sup>
Connection type	Cable with M8 male connector, 4-pin, 200 mm <sup>6)</sup>
Cable material	Plastic, PVC
Conductor cross section	0.09 mm <sup>2</sup>
Cable diameter	Ø 3 mm
Circuit protection	A <sup>7)</sup> B <sup>8)</sup> D <sup>9)</sup>
Housing material	Plastic, ABS/PC
Optics material	Plastic, PMMA
Enclosure rating	IP67
Ambient operating temperature	-25 °C +50 °C
Ambient temperature, storage	-40 °C +75 °C
UL File No.	NRKH.E181493
Part number of individual components	2069152 WS2S-2D3230 2069153 WE2S-2P3230

Limit values.

## Safety-related parameters

MTTF <sub>D</sub>	2,659 years
DC <sub>avg</sub>	0 %

#### Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
cULus certificate	✓
Photobiological safety (DIN EN 62471) certificate	<b>✓</b>

### Classifications

ECLASS 5.0	27270901
ECLASS 5.1.4	27270901

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<sup>&</sup>lt;sup>4)</sup> Signal transit time with resistive load.

<sup>5)</sup> With light/dark ratio 1:1.

<sup>&</sup>lt;sup>6)</sup> Do not bend below 0 °C.

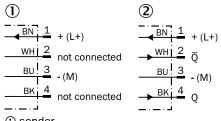
 $<sup>^{7)}</sup>$  A = V<sub>S</sub> connections reverse-polarity protected.

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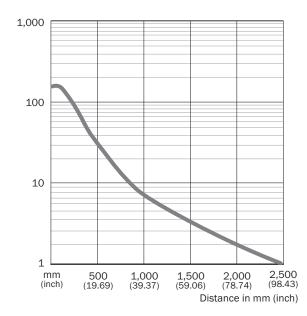
ECLASS 6.0	27270901
ECLASS 6.2	27270901
ECLASS 7.0	27270901
ECLASS 8.0	27270901
ECLASS 8.1	27270901
ECLASS 9.0	27270901
ECLASS 10.0	27270901
ECLASS 11.0	27270901
ECLASS 12.0	27270901
ETIM 5.0	EC002716
ETIM 6.0	EC002716
ETIM 7.0	EC002716
ETIM 8.0	EC002716
UNSPSC 16.0901	39121528

## Connection diagram Cd-085



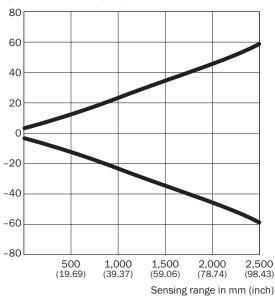
sender
 receiver

### Characteristic curve WSE2S-2



### Light spot size WSE2S-2

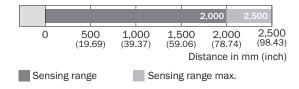




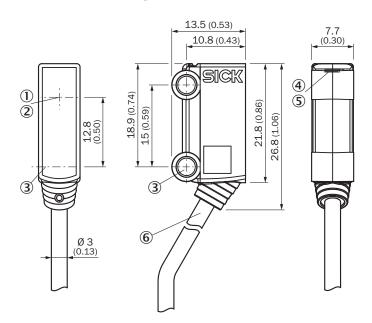
#### Dimensions in mm (inch)

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

### Sensing range diagram WSE2S-2



## Dimensional drawing WSE2S-2



## WSE2S-2P3230 | W2

### PHOTOELECTRIC SENSORS

Dimensions in mm (inch)

- 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
- © Connection

#### Recommended accessories

Other models and accessories → www.sick.com/W2

	Brief description	Туре	part no.	
Mounting syst	Mounting systems			
	<ul> <li>Description: Mounting bracket for floor mounting</li> <li>Material: Steel</li> <li>Details: Steel, zinc coated</li> <li>Items supplied: Without mounting hardware</li> <li>Suitable for: W2S-2</li> </ul>	BEF-W2S-A	4034748	
	<ul> <li>Description: Plate N11N for universal clamp bracket</li> <li>Material: Stainless steel</li> <li>Details: Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)</li> <li>Items supplied: Universal clamp (5322627), mounting hardware</li> <li>Usable for: DeltaPac, Glare, WTD20E</li> </ul>	BEF-KHS-N11N	2071081	
connectors an	nd cables			
	<ul> <li>Connection type head A: Female connector, M8, 4-pin, straight, A-coded</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Sensor/actuator cable</li> <li>Cable: 5 m, 4-wire, PVC</li> <li>Description: Sensor/actuator cable, unshielded</li> <li>Application: Zones with chemicals, Uncontaminated zones</li> </ul>	YF8U14-050VA3XLEAX	2095889	
	<ul> <li>Connection type head A: Female connector, M8, 4-pin, straight, A-coded</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Sensor/actuator cable</li> <li>Cable: 5 m, 4-wire, PUR, halogen-free</li> <li>Description: Sensor/actuator cable, unshielded</li> <li>Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YF8U14-050UA3XLEAX	2094792	
	<ul> <li>Connection type head A: Male connector, M8, 4-pin, straight, A-coded</li> <li>Description: Unshielded</li> <li>Connection systems: Screw-type terminals</li> <li>Permitted cross-section: 0.14 mm² 0.5 mm²</li> </ul>	STE-0804-G	6037323	

## 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

