



DATA SHEET

WSE2S-2P3130

W2
Photoelectric sensors

SICK

Sensor Intelligence



Illustration may differ

PHOTOELECTRIC SENSORS

WSE2S-2P3130

ORDERING INFORMATION

Type	part no.
WSE2S-2P3130	1063521

Further device versions and accessories at www.sick.com/W2



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 ¹⁾
Light spot size (distance)	Ø 65 mm (1,500 mm)
Wave length	640 nm
Adjustment	None
Part number of individual components	2071144 WS2S-2D3130 2071147 WE2S-2P3130

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

MECHANICS/ELECTRONICS

Supply voltage U _B	10 V DC ... 30 V DC ¹⁾
-------------------------------	-----------------------------------

¹⁾ Limit values.

²⁾ May not fall below or exceed 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₊ connections reverse-polarity protected.

⁸⁾ B = output reverse-polarity protected.

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

Ripple	$< 5 \text{ V}_{pp}^{2)}$
Current consumption	$20 \text{ mA}^{3)}$
Switching output	PNP
Switching mode	Light switching
Output current I_{max}	$\leq 50 \text{ mA}$
Response time	$< 0.4 \text{ ms}^{4)}$
Switching frequency	$1,200 \text{ Hz}^{5)}$
Connection type	Cable with connector M8, 3-pin, 200 mm ⁶⁾
Cable material	Plastic, PVC
Conductor cross section	0.09 mm^2
Cable diameter	$\varnothing 3 \text{ mm}$
Circuit protection	A ⁷⁾ B ⁸⁾ D ⁹⁾
Housing material	Plastic, ABS/PC
Optics material	Plastic, PMMA
Enclosure rating	IP67
Ambient operating temperature	$-25 \text{ }^{\circ}\text{C} \dots +50 \text{ }^{\circ}\text{C}$
Ambient temperature, storage	$-40 \text{ }^{\circ}\text{C} \dots +75 \text{ }^{\circ}\text{C}$
UL File No.	NRKH.E181493

¹⁾ Limit values.

²⁾ May not fall below or exceed 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 $0 \text{ }^{\circ}\text{C}$.

⁷⁾ A = V_s connections reverse-polarity protected.

⁸⁾ B = output reverse-polarity protected.

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

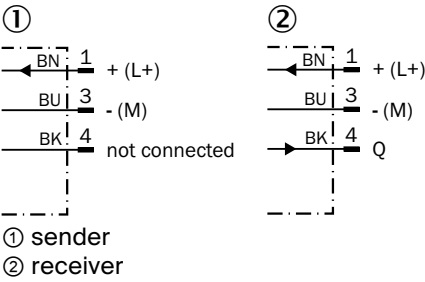
SAFETY-RELATED PARAMETERS

$MTTF_D$	2,659 years
DC_{avg}	0 %

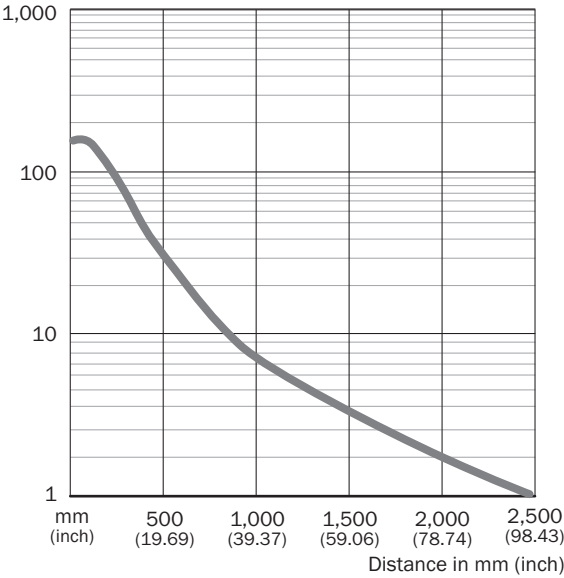
CERTIFICATES

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
China Compulsory Product Certification (CCC) exempt	✓
cULus certificate	✓
Photobiological safety (DIN EN 62471) certificate	✓

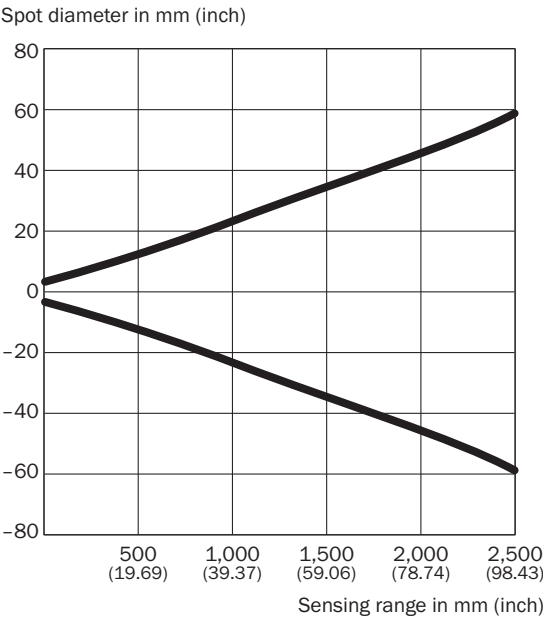
CONNECTION DIAGRAM CD-051



CHARACTERISTIC CURVE WSE2S-2

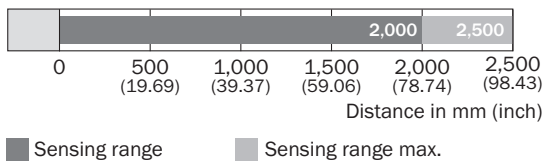
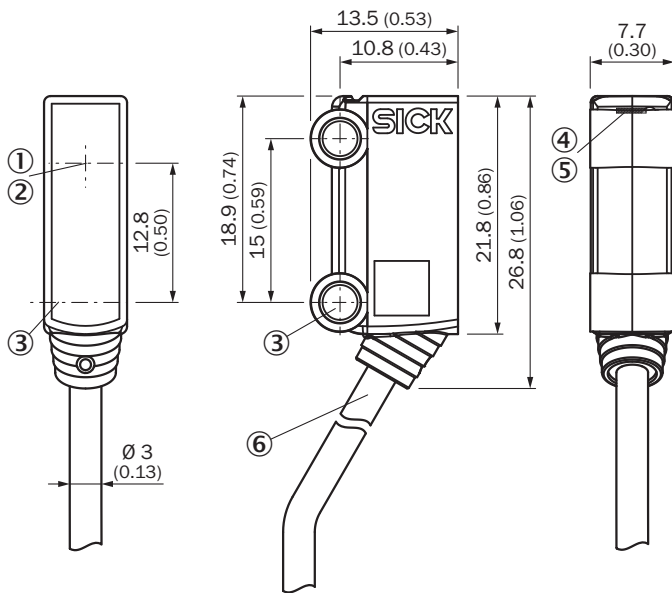


LIGHT SPOT SIZE WSE2S-2



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 WSE2S-2**

Dimensions in mm (inch)

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

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/1063521



SICK AG
WALDKIRCH
GERMANY
SICK.COM

SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

SICK
Sensor Intelligence