

SICK.COM



DATA SHEET

WSE4S-3E2130

W4
Photoelectric sensors

SICK Sensor Intelligence

PHOTOELECTRIC SENSORS

WSE4S-3E2130

ORDERING INFORMATION

Type	part no.
WSE4S-3E2130	1052876

Further device versions and accessories at www.sick.com/W4



Illustration may differ



DETAILED TECHNICAL DATA

FEATURES

Functional principle	Through-beam photoelectric sensor
Sensing range max.	0 m ... 5 m
Sensing range	0 m ... 4.5 m
Emitted beam	
	Light source PinPoint LED ¹⁾
	Type of light Visible red light
	Light spot size (distance) Ø 50 mm (2 m)
Key LED figures	
	Wave length 650 nm
Adjustment	None
Part number of individual components	2058636 WS4S-3D2130 2058638 WE4S-3E2130

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

SAFETY-RELATED PARAMETERS

MTTF _D	753 years
DC _{avg}	0 %
T _M (mission time)	20 years

ELECTRONICS

Supply voltage U_B	10 V DC ... 30 V DC ¹⁾
Ripple	< 5 V _{pp} ²⁾
Current consumption	20 mA ³⁾ 20 mA ⁴⁾
Protection class	III
Digital output	Type NPN Switching mode Dark switching Output current I_{max} ≤ 100 mA Response time < 0.5 ms ⁵⁾ Switching frequency 1,000 Hz ⁶⁾
Circuit protection	A ⁷⁾ C ⁸⁾ D ⁹⁾
Test input sender off	TE to 0 V

¹⁾ Limit values.²⁾ May not fall below or exceed U_V tolerances.³⁾ Sender.⁴⁾ Receiver.⁵⁾ Signal transit time with resistive load.⁶⁾ With light/dark ratio 1:1.⁷⁾ A = V_s connections reverse-polarity protected.⁸⁾ C = interference suppression.⁹⁾ D = outputs overcurrent and short-circuit protected.**MECHANICS**

Housing	Rectangular
Design detail	Slim
Dimensions (W x H x D)	12.2 mm x 41.8 mm x 17.3 mm
Connection	Connector M8, 3-pin
Material	Housing Plastic, ABS Front screen Plastic, PMMA
Weight	40 g

AMBIENT DATA

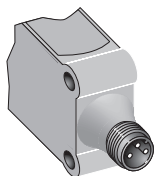
Enclosure rating	IP67 IP66
Ambient operating temperature	-40 °C ... +60 °C
Ambient temperature, storage	-40 °C ... +75 °C
UL File No.	NRKH.E181493 & NRKH7.E181493

CERTIFICATES

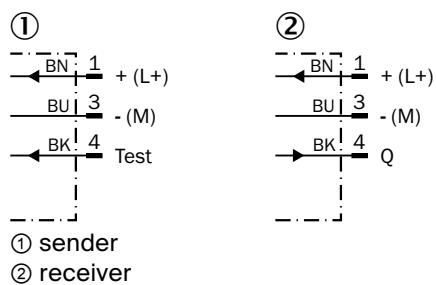
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓

Moroccan declaration of conformity	✓
China RoHS	✓
ECOLAB certificate	✓
Photobiological safety (DIN EN 62471) certificate	✓

CONNECTION TYPE



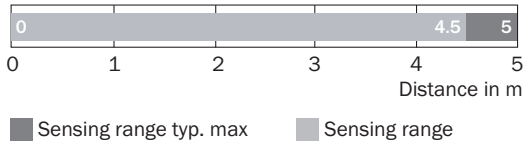
CONNECTION DIAGRAM CD-069



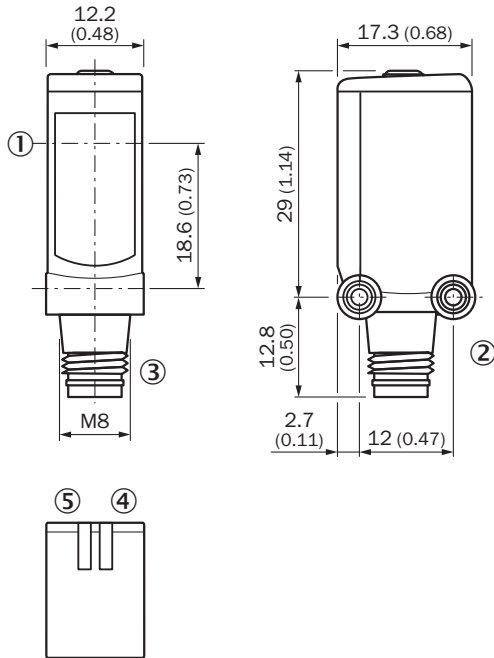
CHARACTERISTIC CURVE WSE4S-3



SENSING RANGE DIAGRAM WSE4S-3



DIMENSIONAL DRAWING WL4S-3, WSE4S-3, POTENTIOMETER



Dimensions in mm (inch)

- ① Center of optical axis
- ② Threaded mounting hole M3
- ③ Connection
- ④ LED indicator green: Supply voltage active
- ⑤ LED indicator yellow: Status of received light beam

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/1052876



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SICK AT A GLANCE

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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

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