

SICK.COM



DATA SHEET

WSE4S-3E1330H

W4
Photoelectric sensors

SICK Sensor Intelligence

PHOTOELECTRIC SENSORS

WSE4S-3E1330H

ORDERING INFORMATION

Type	part no.
WSE4S-3E1330H	1052868

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	<table border="0"> <tr> <td>Light source</td> <td>PinPoint LED ¹⁾</td> </tr> <tr> <td>Type of light</td> <td>Visible red light</td> </tr> <tr> <td>Light spot size (distance)</td> <td>Ø 50 mm (2 m)</td> </tr> </table>	Light source	PinPoint LED ¹⁾	Type of light	Visible red light	Light spot size (distance)	Ø 50 mm (2 m)
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Type of light	Visible red light						
Light spot size (distance)	Ø 50 mm (2 m)						
Key LED figures	<table border="0"> <tr> <td>Wave length</td> <td>650 nm</td> </tr> </table>	Wave length	650 nm				
Wave length	650 nm						
Adjustment	None						
Special applications	Hygienic and washdown zones						
Part number of individual components	2058456 WS4S-3D1330H 2058458 WE4S-3E1330H						
Housing design	Hygiene						

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⁾
Protection class	III
Digital output	Type NPN Switching mode Dark switching Output current I_{max} ≤ 100 mA Response time < 0.5 ms ⁴⁾ Switching frequency 1,000 Hz ⁵⁾
Circuit protection	A ⁶⁾ B ⁷⁾ C ⁸⁾
Test input sender off	TE to 0 V

¹⁾ Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8 A.

²⁾ May not fall below or exceed U_V tolerances.

³⁾ Sender.

⁴⁾ Signal transit time with resistive load.

⁵⁾ With light/dark ratio 1:1.

⁶⁾ A = V_B connections reverse-polarity protected.

⁷⁾ B = inputs and output reverse-polarity protected.

⁸⁾ C = interference suppression.

MECHANICS

Housing	Rectangular
Design detail	Slim
Dimensions (W x H x D)	15.25 mm x 48.6 mm x 22.15 mm
Connection	Cable, 3-wire, 2 m ¹⁾
Connection detail	Conductor size 0.14 mm ² Length of cable (L) 2 m ¹⁾
Material	Housing Metal, Stainless steel V4A (1.4404, 316L) Front screen Plastic, PMMA Cable Plastic, PVC
Weight	80 g

¹⁾ Do not bend below 0 °C.

AMBIENT DATA

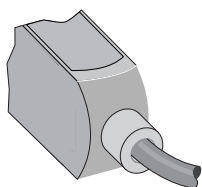
Enclosure rating	IP66 IP67 IP68 IP69K
Ambient operating temperature	-30 °C ... +60 °C ¹⁾
Ambient temperature, storage	-30 °C ... +75 °C
UL File No.	FDA, UL No. NRKH.E181493 & cUL No. NRKH7.E181493

¹⁾ At $UV \leq 24$ V and $IA < 30$ mA.

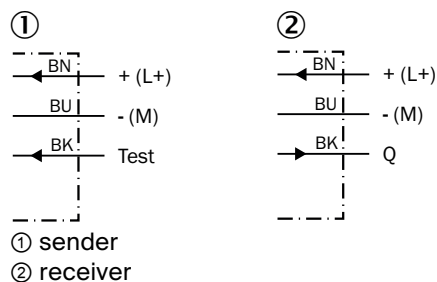
CERTIFICATES

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	✓

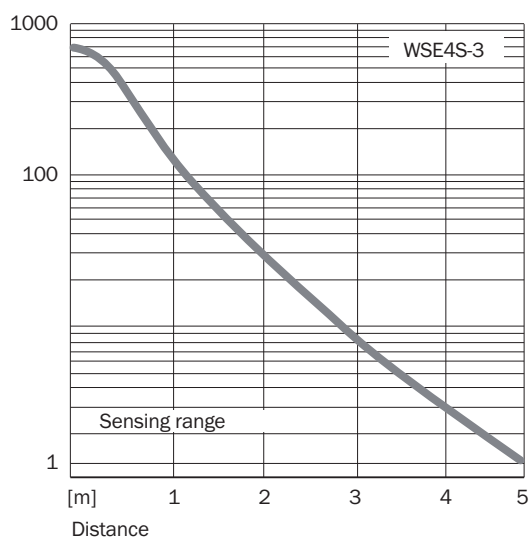
CONNECTION TYPE



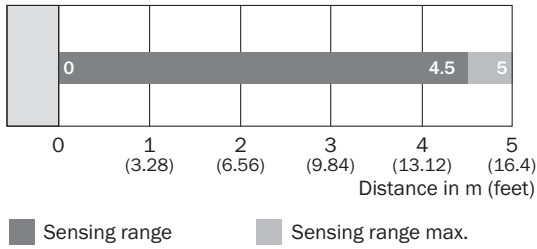
CONNECTION DIAGRAM CD-061



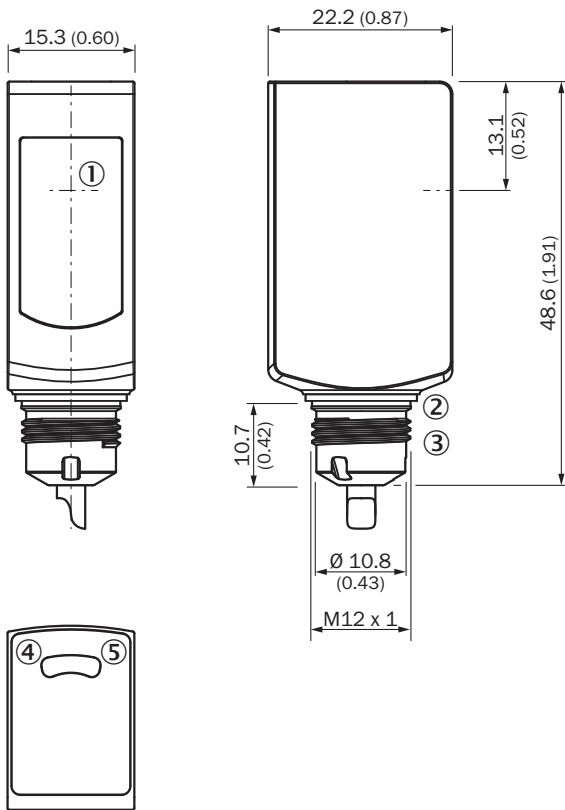
CHARACTERISTIC CURVE WSE4S-3V, WSE4S-3H



SENSING RANGE DIAGRAM WSE4S-3



DIMENSIONAL DRAWING WSE4S-3H



Dimensions in mm (inch)

- ① Center of optical axis, sender (WS) and receiver (WE)
- ② Sealing ring (tightening torque 6 Nm)
- ③ Connector M12
- ④ LED indicator yellow: Status of received light beam
- ⑤ LED indicator green: Supply voltage active

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/1052868



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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

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