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DATA SHEET

# WSE4S-3F3130H

W4  
Photoelectric sensors

**SICK** Sensor Intelligence

## PHOTOELECTRIC SENSORS

## WSE4S-3F3130H

## ORDERING INFORMATION

Type	part no.
WSE4S-3F3130H	1052882

Further device versions and accessories at [www.sick.com/W4](http://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 <sup>1)</sup>
	Type of light	Visible red light
	Light spot size (distance)	Ø 50 mm (2 m)
Key LED figures	Wave length	650 nm
	Adjustment	None
Special applications	Hygienic and washdown zones	
Part number of individual components	2058464 WS4S-3D3130H 2058691 WE4S-3F3130H	
Housing design	Hygiene	

<sup>1)</sup> Average service life: 100,000 h at T<sub>U</sub> = +25 °C.

## SAFETY-RELATED PARAMETERS

MTTF <sub>D</sub>	968 years
DC <sub>avg</sub>	0 %
T <sub>M</sub> (mission time)	20 years

**ELECTRONICS**

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

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

<sup>2)</sup> May not fall below or exceed  $U_V$  tolerances.

<sup>3)</sup> Sender.

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

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

<sup>6)</sup> A =  $V_B$  connections reverse-polarity protected.

<sup>7)</sup> B = inputs and output reverse-polarity protected.

<sup>8)</sup> 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 with connector M8, 3-pin <sup>1) 2)</sup>
Connection detail	Length of cable (L) 150 mm <sup>2)</sup>
Material	Housing Metal, Stainless steel V4A (1.4404, 316L) Front screen Plastic, PMMA Cable Plastic, PVC
Weight	50 g

<sup>1)</sup> Max. tightening torque: 0.6 Nm.

<sup>2)</sup> Do not bend below 0 °C.

**AMBIENT DATA**

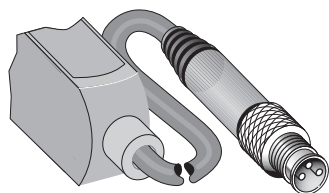
Enclosure rating	IP66 IP67 IP68 IP69K
Ambient operating temperature	-30 °C ... +60 °C <sup>1)</sup>
Ambient temperature, storage	-30 °C ... +75 °C
UL File No.	FDA, UL No. NRKH.E181493 & cUL No. NRKH7.E181493

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

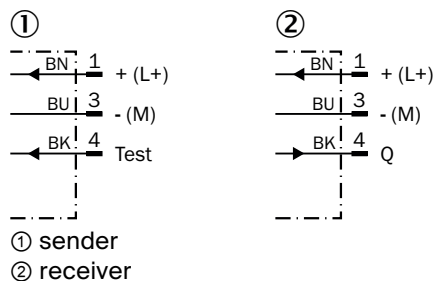
## CERTIFICATES

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-069



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/1052882](http://www.sick.com/1052882)



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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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