



DATA SHEET

WSE4-3F3130F20

W4
Photoelectric sensors

SICK

Sensor Intelligence



Illustration may differ

PHOTOELECTRIC SENSORS

WSE4-3F3130F20

ORDERING INFORMATION

Type	part no.
WSE4-3F3130F20	1042520

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

DETAILED TECHNICAL DATA

FEATURES

Functional principle		Through-beam photoelectric sensor	
Sensing range max.		0 m ... 4 m	
Sensing range		0 m ... 3.5 m	
Emitted beam			
	Light source	PinPoint LED ¹⁾	
	Type of light	Visible red light	
	Light spot size (distance)	Ø 75 mm (2 m)	
Key LED figures			
	Wave length	650 nm	
Adjustment		None	
Part number of individual components		2043943 WS4-3D3130F20 2043944 WE4-3F3130F20	

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

SAFETY-RELATED PARAMETERS

MTTF _D	1,103 years
DC _{avg}	0 %

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 PNP 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⁾ C ⁷⁾ D ⁸⁾
Test input sender off	TE to 0 V

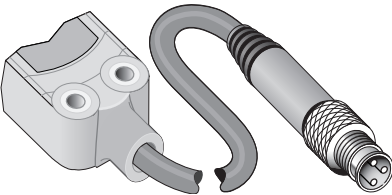
¹⁾ Limit values.²⁾ May not fall below or exceed U_V tolerances.³⁾ Sender.⁴⁾ Signal transit time with resistive load.⁵⁾ With light/dark ratio 1:1.⁶⁾ A = V_B connections reverse-polarity protected.⁷⁾ C = interference suppression.⁸⁾ D = outputs overcurrent and short-circuit protected.**MECHANICS**

Housing	Rectangular
Design detail	Flat
Dimensions (W x H x D)	16 mm x 39.5 mm x 12 mm
Connection	Cable with connector M8, 3-pin ¹⁾
Connection detail	Conductor size 0.14 mm² Cable diameter Ø 3.4 mm Length of cable (L) 100 mm ¹⁾
Material	Housing Plastic, ABS Front screen Plastic, PMMA Cable Plastic, PVC
Weight	60 g

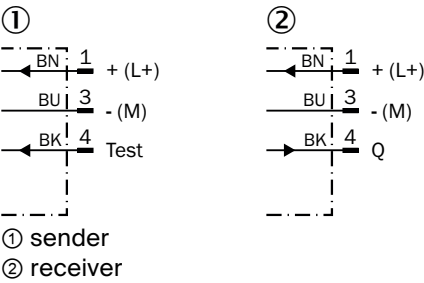
¹⁾ Do not bend below 0 °C.**AMBIENT DATA**

Enclosure rating	IP67 IP66
Ambient operating temperature	-40 °C ... +60 °C
Ambient temperature, storage	-40 °C ... +75 °C

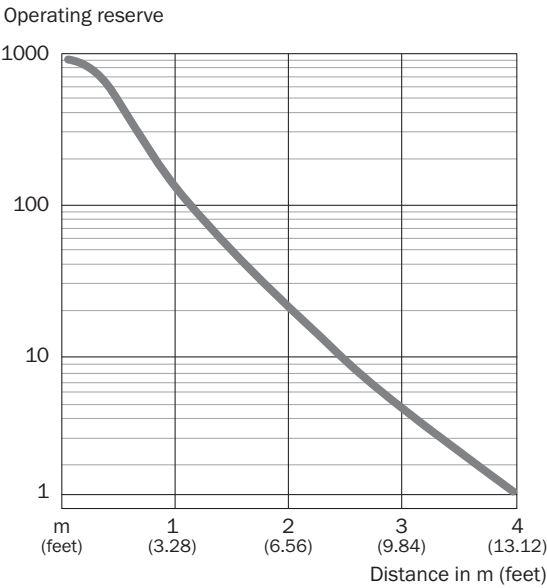
CONNECTION TYPE



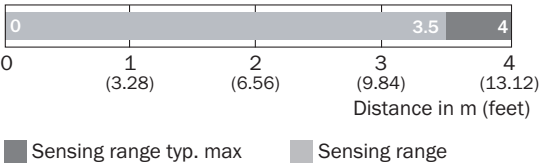
CONNECTION DIAGRAM CD-069



CHARACTERISTIC CURVE WSE4-3



SENSING RANGE DIAGRAM WSE4-3



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/1042520



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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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