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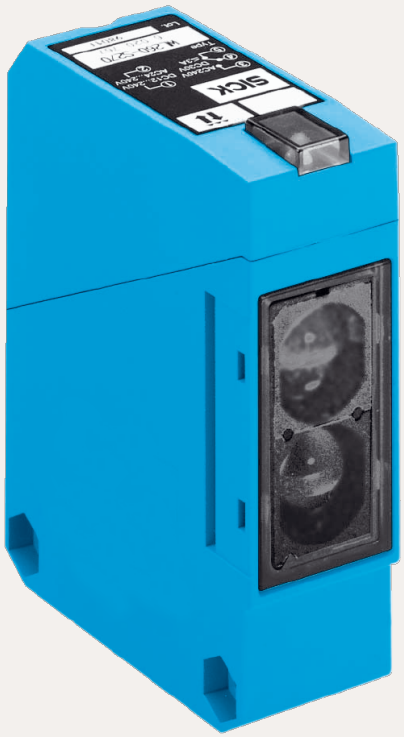


DATA SHEET

WL260-F270

W260
Photoelectric sensors

SICK
Sensor Intelligence

Illustration may differ

PHOTOELECTRIC SENSORS

WL260-F270

ORDERING INFORMATION

Type	part no.
WL260-F270	6020976

Further device versions and accessories at www.sick.com/W260

DETAILED TECHNICAL DATA

FEATURES

Functional principle	Photoelectric retro-reflective sensor
Functional principle detail	Dual lens
Dimensions (W x H x D)	25 mm x 78 mm x 63 mm
Housing design (light emission)	Rectangular
Sensing range max.	0.01 m ... 14 m [1]
Sensing range	0.01 m ... 9.5 m [2] 0.01 m ... 11.5 m [1]
Focus	Approx. 1.7°
Type of light	Visible red light
Light source	LED [3]
Light spot size (distance)	Ø 240 mm (8 m)
Angle of dispersion	Approx. 1.7°
Adjustment	Potentiometer, 270°

[1] Reflector PL80A.

[2] Reflector P250.

[3] Average service life: 100,000 h at T_U = +25 °C.

MECHANICS/ELECTRONICS

Supply voltage	10 V DC ... 30 V DC [1]
Ripple	< 5 V_{pp} [2]
Current consumption	35 mA [3]
Switching output	PNP
Switching mode	Light/dark switching
Switching mode selector	Selectable via light/dark selector
Output current $I_{max.}$	≤ 100 mA
Response time	≤ 1.5 ms [4]
Switching frequency	333 Hz [5]
Connection type	Cable gland
Circuit protection	A [6] B [7] C [8] D [9]
Protection class	II [10]
Weight	120 g
Polarisation filter	✓
Housing material	Plastic, ABS
Optics material	Plastic, PMMA
Enclosure rating	IP67
Items supplied	Reflector P250, mounting bracket BEF-W260
Test input sender off	TE to V_S
Ambient operating temperature	–25 °C ... +55 °C
Ambient temperature, storage	–40 °C ... +70 °C
UL File No.	EN50081-1, 242356

[1] Limit values when operated in short-circuit protected network: max. 8 A.

[2] May not exceed or fall below U_v tolerances.

[3] Without load.

[4] Signal transit time with resistive load.

[5] With light/dark ratio 1:1.

[6] A = V_S connections reverse-polarity protected.

[7] B = inputs and output reverse-polarity protected.

[8] C = interference suppression.

[9] D = outputs overcurrent and short-circuit protected.

[10] Reference voltage: 50 V DC.

SAFETY-RELATED PARAMETERS

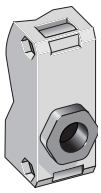
$MTTF_D$	908 years
DC_{avg}	0 %

CERTIFICATES

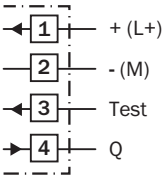
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓

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

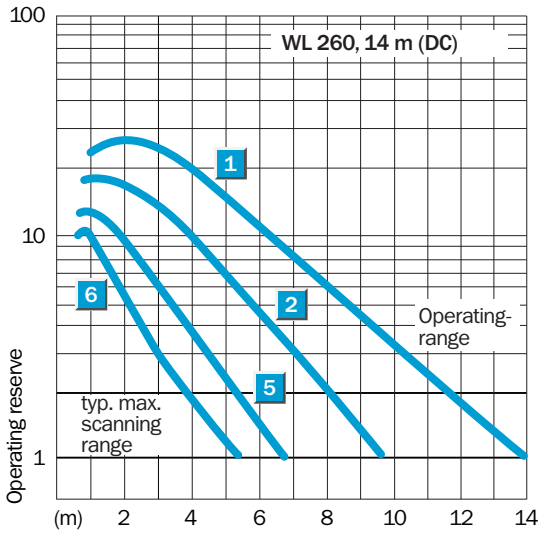
CONNECTION TYPE



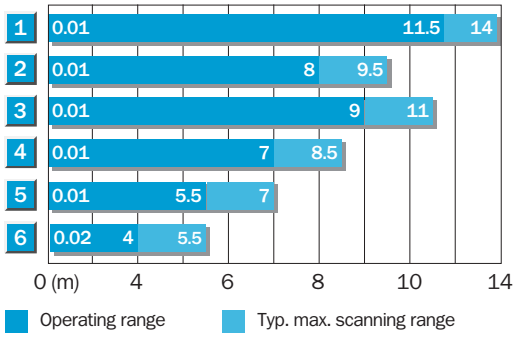
CONNECTION DIAGRAM CD-123



CHARACTERISTIC CURVE

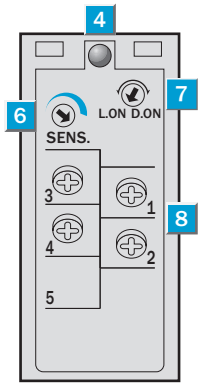


SENSING RANGE DIAGRAM



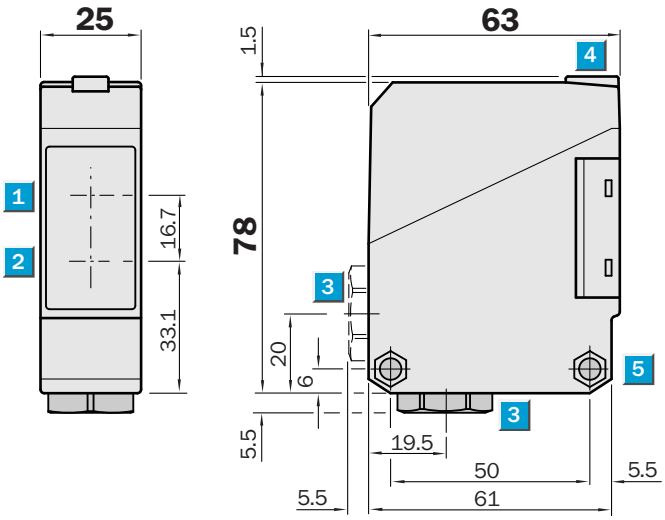
	Reflector type	Operating range
1	PL 80 A	0.01 ... 11.5 m
2	P 250	0.01 ... 8 m
3	PL 50 A or PL 40 A	0.01 ... 9 m
4	PL 30 A or PL 31 A	0.01 ... 7 m
5	PL 20 A	0.01 ... 5.5 m
6	Reflective tape Diamond Grade	0.02 ... 4 m

ADJUSTMENTS



④ Status indicator LED, yellow: Output active
⑥ Adjustment of sensing range
⑦ Light/ dark rotary switch: L = light switching, D = dark switching
⑧ Terminals

DIMENSIONAL DRAWING



Dimensions in mm (inch)

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/6020976

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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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