



DATA SHEET

WS/WE260-R270

W260
Photoelectric sensors

SICK

Sensor Intelligence



Illustration may differ

PHOTOELECTRIC SENSORS

WS/WE260-R270

ORDERING INFORMATION

Type	part no.
WS/WE260-R270	6020774

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



DETAILED TECHNICAL DATA

FEATURES

Functional principle	Through-beam photoelectric sensor
Dimensions (W x H x D)	25 mm x 78 mm x 63 mm
Housing design (light emission)	Rectangular
Sensing range max.	0 m ... 45 m
Sensing range	0 m ... 40 m
Focus	Approx. 1°
Type of light	Visible red light
Light source	LED ¹⁾
Light spot size (distance)	Ø 700 mm (40 m)
Angle of dispersion	Approx. 1°
Adjustment	Potentiometer, 270°

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

MECHANICS/ELECTRONICS

Supply voltage	12 V DC ... 240 V DC ¹⁾ 24 V AC ... 240 V AC ¹⁾
Power consumption, sender	≤ 4 VA
Power consumption, receiver	≤ 5 VA

¹⁾ + - 10%.

²⁾ Provide suitable spark suppression for inductive or capacitive loads.

³⁾ With light/dark ratio 1:1.

⁴⁾ A = V_s connections reverse-polarity protected.

⁵⁾ C = interference suppression.

⁶⁾ Rated voltage: 250 V AC/DC.

Switching output	Relay, electrically isolated ²⁾
Output function	Change-over contacts
Switching mode	Light switching ²⁾
Switching current (switching voltage)	3 A (240 V AC) 3 A (30 V DC)
Response time	≤ 20 ms
Switching frequency	25 Hz ³⁾
Angle of reception	Approx. 20°
Time functions	On delay Off delay
Delay time	Adjustable via time delay selector switch, 0.1 s ... 10 s Adjustable via time control
Connection type	Cable gland
Circuit protection	A ⁴⁾ C ⁵⁾
Protection class	II ⁶⁾
Weight	120 g
Interference emission	Level EN 61000-6-3 Residential and commercial areas
Housing material	Plastic, ABS
Optics material	Plastic, PC
Enclosure rating	IP67
Items supplied	Mounting bracket BEF-W260
Electromagnetic compatibility (EMC)	Level EN 61000-6-3 Residential and commercial areas
Ambient operating temperature	-25 °C ... +55 °C
Ambient temperature, storage	-40 °C ... +70 °C
UL File No.	EN50081-1, 242356

¹⁾ +- 10%.²⁾ Provide suitable spark suppression for inductive or capacitive loads.³⁾ With light/dark ratio 1:1.⁴⁾ A = V_s connections reverse-polarity protected.⁵⁾ C = interference suppression.⁶⁾ Rated voltage: 250 V AC/DC.

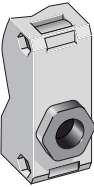
SAFETY-RELATED PARAMETERS

MTTF _D	331 years
DC _{avg}	0 %

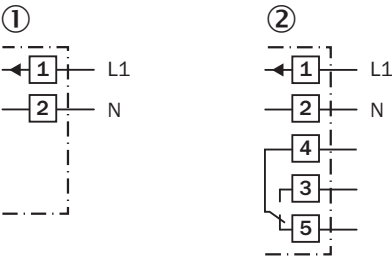
CERTIFICATES

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
cRUus certificate	✓
Photobiological safety (DIN EN 62471) certificate	✓

CONNECTION TYPE

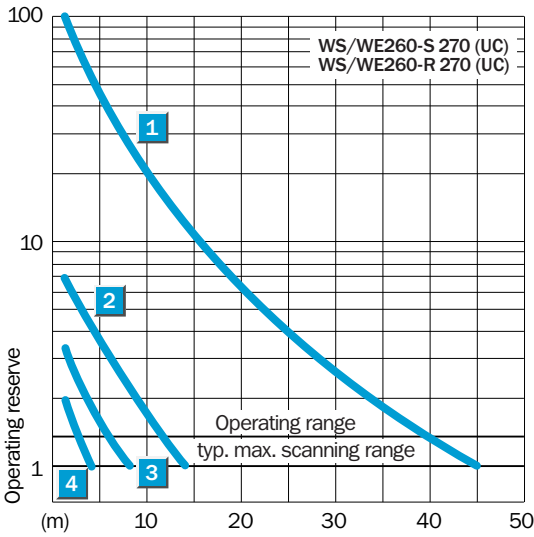


CONNECTION DIAGRAM CD-227

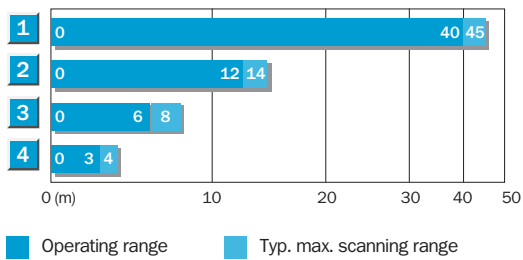


- ① sender
- ② receiver

CHARACTERISTIC CURVE



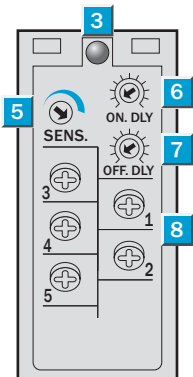
SENSING RANGE DIAGRAM



Scanning range reduction when using slotted masks

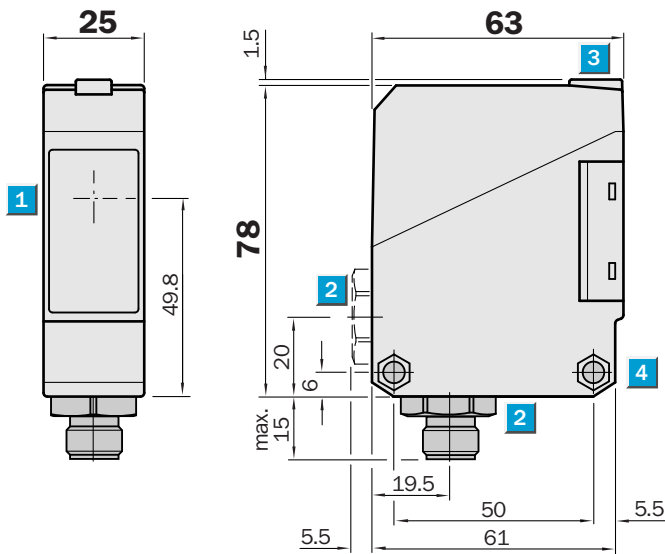
1	Without slotted mask
2	Slot width 5 mm
3	Slot width 2 mm
4	Slot width 1 mm

ADJUSTMENTS



- ③ LED indicator orange:
- ③ WE 260: switching output active
- ③ WS 260: sender active
- ⑤ sensitivity control
- ⑥ Time control ON delay t_{ON}
- ⑦ Time control OFF delay t_{OFF}
- ⑧ Terminals

DIMENSIONAL DRAWING



Dimensions in mm (inch)

- ① Center of optical axis, sender/ receiver
- ② Cable entry gland 1/2" PF thread for cable diameters from 6 to 10 mm optionally at bottom or rear; or connector M12, bottom
- ③ LED indicator orange:
- ③ WE 260: switching output active
- ③ WS 260: sender active
- ④ Mounting hole $\varnothing$ 5.2 mm, for M5 hexagon nuts on both sides

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/6020774



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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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