



# WS/WE260-S270

W260

COMPACT PHOTOELECTRIC SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

Type	Part no.
WS/WE260-S270	6020773

**Included in delivery:** BEF-W260 (2)

Other models and accessories → [www.sick.com/W260](http://www.sick.com/W260)

### Detailed technical data

#### Features

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

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

#### Mechanics/electronics

<b>Supply voltage</b>	12 V DC ... 240 V DC <sup>1)</sup> 24 V AC ... 240 V AC <sup>1)</sup>
<b>Power consumption, sender</b>	≤ 4 VA
<b>Power consumption, receiver</b>	≤ 5 VA
<b>Switching output</b>	Relay, electrically isolated <sup>2)</sup>
<b>Output function</b>	Change-over contacts

<sup>1)</sup> ± 10%.

<sup>2)</sup> Provide suitable spark suppression for inductive or capacitive loads.

<sup>3)</sup> With light/dark ratio 1:1.

<sup>4)</sup> A = V<sub>S</sub> connections reverse-polarity protected.

<sup>5)</sup> C = interference suppression.

<sup>6)</sup> Rated voltage: 250 V AC/DC.

<b>Switching mode</b>	Light switching <sup>2)</sup>
<b>Switching current (switching voltage)</b>	3 A (240 V AC) 3 A (30 V DC)
<b>Response time</b>	≤ 20 ms
<b>Switching frequency</b>	25 Hz <sup>3)</sup>
<b>Angle of reception</b>	Approx. 20°
<b>Connection type</b>	Cable gland
<b>Circuit protection</b>	A <sup>4)</sup> C <sup>5)</sup>
<b>Protection class</b>	II <sup>6)</sup>
<b>Weight</b>	120 g
<b>Interference emission</b>	Level EN 61000-6-3
<b>Housing material</b>	Plastic, ABS
<b>Optics material</b>	Plastic, PC
<b>Enclosure rating</b>	IP67
<b>Items supplied</b>	Mounting bracket BEF-W260
<b>Usage category</b>	AC-15, DC-13, according to EN 60947-1
<b>Electromagnetic compatibility (EMC)</b>	Level EN 61000-6-3
<b>Ambient operating temperature</b>	-25 °C ... +55 °C
<b>Ambient temperature, storage</b>	-40 °C ... +70 °C
<b>UL File No.</b>	NRNT2.E128350 & NRNT8.E128350

1) +/- 10%.

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

3) With light/dark ratio 1:1.

4) A = V<sub>S</sub> connections reverse-polarity protected.

5) C = interference suppression.

6) Rated voltage: 250 V AC/DC.

### Safety-related parameters

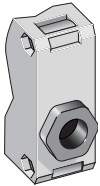
<b>MTTF<sub>D</sub></b>	361 years
<b>DC<sub>avg</sub></b>	0 %

### Classifications

<b>ECl@ss 5.0</b>	27270901
<b>ECl@ss 5.1.4</b>	27270901
<b>ECl@ss 6.0</b>	27270901
<b>ECl@ss 6.2</b>	27270901
<b>ECl@ss 7.0</b>	27270901
<b>ECl@ss 8.0</b>	27270901
<b>ECl@ss 8.1</b>	27270901
<b>ECl@ss 9.0</b>	27270901
<b>ECl@ss 10.0</b>	27270901
<b>ECl@ss 11.0</b>	27270901
<b>ETIM 5.0</b>	EC002716

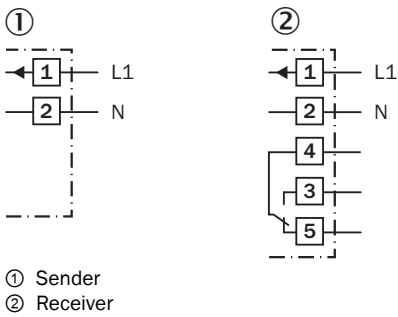
<b>ETIM 6.0</b>	EC002716
<b>ETIM 7.0</b>	EC002716
<b>ETIM 8.0</b>	EC002716
<b>UNSPSC 16.0901</b>	39121528

Connection type

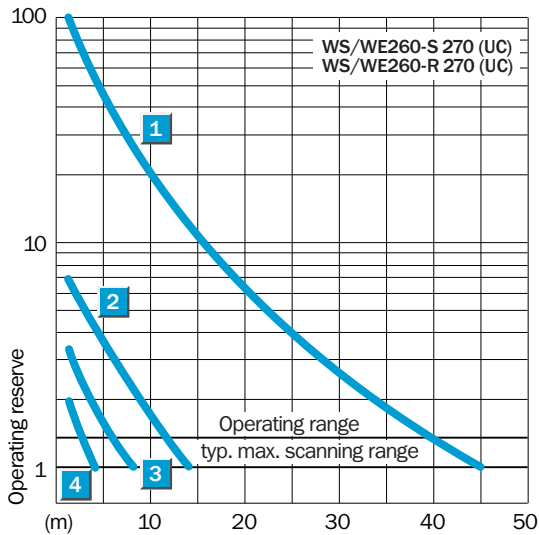


Connection diagram

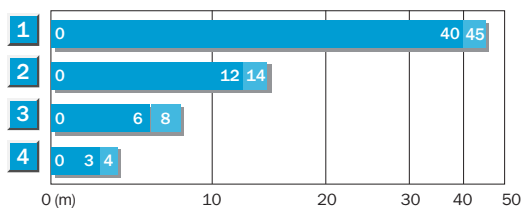
Cd-227



Characteristic curve



## Sensing range diagram

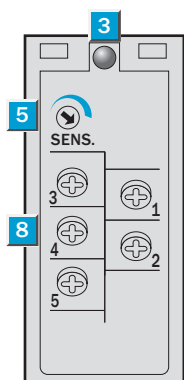


■ Operating range    ■ Typ. max. scanning range

### Scanning range reduction when using slotted masks

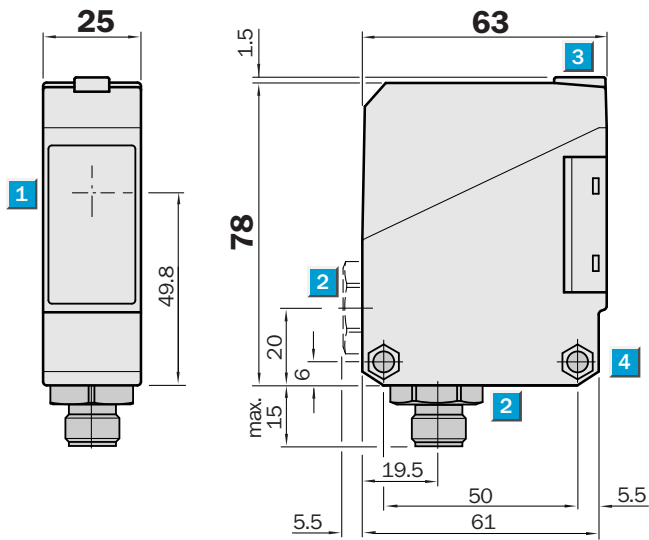
1	Without slotted mask
2	Slot width 5 mm
3	Slot width 2 mm
4	Slot width 1 mm

## Adjustments



- ③ LED indicator orange: WE 260: switching output active  
 WS 260: sender active
- ⑤ Sensitivity control
- 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: WE 260: switching output activeWS 260: sender active
- ④ Mounting hole  $\varnothing$  5.2 mm, for M5 hexagon nuts on both sides

Recommended accessories

Other models and accessories → [www.sick.com/W260](http://www.sick.com/W260)

	Brief description	Type	Part no.
Mounting brackets and plates			
	Mounting bracket, steel, zinc coated, without mounting hardware	BEF-W260	5304819

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)