



# WS/WE250-S132

W250

PRODUCT PORTFOLIO

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

Type	Part no.
WS/WE250-S132	6010603

Other models and accessories → [www.sick.com/W250](http://www.sick.com/W250)

### Detailed technical data

#### Features

<b>Sensor/ detection principle</b>	Through-beam photoelectric sensor
<b>Dimensions (W x H x D)</b>	20 mm x 60 mm x 43 mm
<b>Housing design (light emission)</b>	Rectangular
<b>Sensing range max.</b>	0 m ... 25 m
<b>Sensing range</b>	0 m ... 20 m
<b>Type of light</b>	Visible red light
<b>Light source</b>	LED <sup>1)</sup>
<b>Light spot size (distance)</b>	Ø 1.5 m (20 m)
<b>Angle of dispersion</b>	4°
<b>Adjustment</b>	Potentiometer, 2 turns <sup>2)</sup>

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

<sup>2)</sup> With position indicator.

#### Mechanics/electronics

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

<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> Do not bend below 0 °C.

<sup>5)</sup> A = V<sub>S</sub> connections reverse-polarity protected.

<sup>6)</sup> C = interference suppression.

<sup>7)</sup> Reference voltage: 250 V AC.

<b>Switching current (switching voltage)</b>	3 A (240 V AC) 3 A (30 V DC)
<b>Response time</b>	≤ 15 ms
<b>Switching frequency</b>	33 Hz <sup>3)</sup>
<b>Angle of reception</b>	20°
<b>Connection type</b>	Cable, 5-wire, 2 m <sup>4)</sup>
<b>Cable material</b>	PVC
<b>Conductor cross-section</b>	0.76 mm <sup>2</sup>
<b>Cable diameter</b>	Ø 6.3 mm
<b>Circuit protection</b>	A <sup>5)</sup> C <sup>6)</sup>
<b>Protection class</b>	II <sup>7)</sup>
<b>Housing material</b>	Plastic, ABS
<b>Optics material</b>	Plastic, PC
<b>Enclosure rating</b>	IP67
<b>Items supplied</b>	BEF-W250 mounting bracket
<b>Usage category</b>	AC-15, DC-13, according to EN 60947-1
<b>Ambient operating temperature</b>	-25 °C ... +55 °C
<b>Ambient storage temperature</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) Do not bend below 0 °C.

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

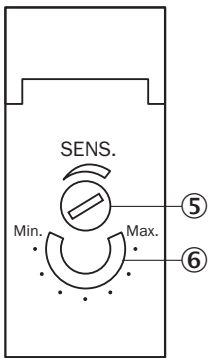
6) C = interference suppression.

7) Reference voltage: 250 V AC.

### 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>ETIM 5.0</b>	EC002716
<b>ETIM 6.0</b>	EC002716
<b>UNSPSC 16.0901</b>	39121528

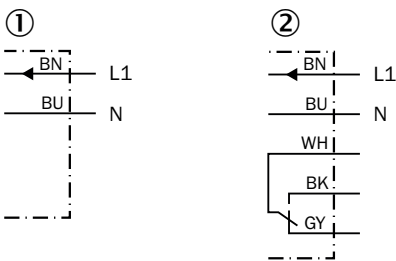
Adjustments possible



- ⑤ Sensitivity adjustment (2 turns), over-turn protection
- ⑥ Position indicator for sensitivity setting (270°)

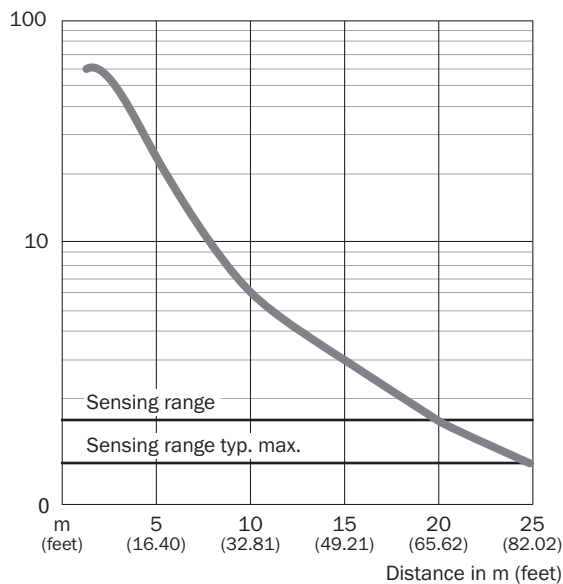
Connection diagram

cd-170

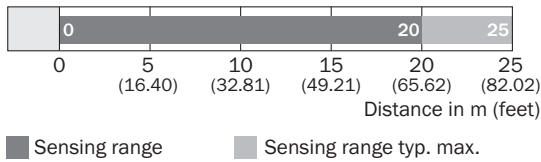


- ① Sender
- ② Receiver

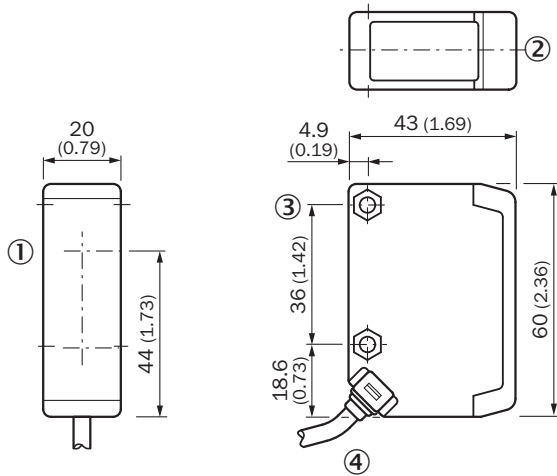
Characteristic curve



### Sensing range diagram





### Dimensional drawing (Dimensions in mm (inch))



- ① Center of the optical axis, sender (WS250), receiver (WE250)
- ② Red LED signal strength indicator (only receiver WE250)
- ③ Mounting hole  $\varnothing$  4.2 mm, for M4 hexagon nuts on both sides
- ④ Connection cable

### Recommended accessories

Other models and accessories → [www.sick.com/W250](http://www.sick.com/W250)

	Brief description	Type	Part no.
<b>Universal bar clamp systems</b>			
	Plate N02 for universal clamp bracket, Zinc plated steel (sheet), Zinc die cast (clamping bracket), Universal clamp (5322626), mounting hardware	BEF-KHS-N02	2051608
<b>Mounting brackets and plates</b>			
	Mounting bracket, steel, zinc coated, mounting hardware included	BEF-W250	5305850

## 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)