



# WS/WE150-P132

W150

PRODUCT PORTFOLIO

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

Type	Part no.
WS/WE150-P132	6011030

Other models and accessories → [www.sick.com/W150](http://www.sick.com/W150)

### Detailed technical data

#### Features

<b>Sensor/ detection principle</b>	Through-beam photoelectric sensor
<b>Dimensions (W x H x D)</b>	10 mm x 28 mm x 17.5 mm
<b>Housing design (light emission)</b>	Rectangular
<b>Sensing range max.</b>	0 m ... 4.4 m
<b>Sensing range</b>	0 m ... 4 m
<b>Type of light</b>	Visible red light
<b>Light source</b>	LED <sup>1)</sup>
<b>Angle of dispersion</b>	6°
<b>Adjustment</b>	Potentiometer, 270°

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

#### Communication interface

<b>Communication interface</b>	-
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#### Mechanics/electronics

<b>Supply voltage</b>	10 V DC ... 30 V DC <sup>1)</sup>
<b>Ripple</b>	± 10 % <sup>2)</sup>

<sup>1)</sup> Limit values.

<sup>2)</sup> May not exceed or fall below U<sub>v</sub> tolerances.

<sup>3)</sup> Sender.

<sup>4)</sup> Receiver.

<sup>5)</sup> Without load.

<sup>6)</sup> Signal transit time with resistive load.

<sup>7)</sup> With light/dark ratio 1:1.

<sup>8)</sup> Do not bend below 0 °C.

<sup>9)</sup> A = V<sub>S</sub> connections reverse-polarity protected.

<sup>10)</sup> B = inputs and output reverse-polarity protected.

<sup>11)</sup> C = interference suppression.

<sup>12)</sup> D = outputs overcurrent and short-circuit protected.

<b>Power consumption</b>	≤ 15 mA, ≤ 20 mA <sup>3) 4) 5)</sup>
<b>Output type</b>	PNP
<b>Switching mode</b>	Light/dark switching
<b>Switching mode selector</b>	Selectable via L/D control cable
<b>Output current I<sub>max.</sub></b>	≤ 100 mA
<b>Response time</b>	≤ 0.5 ms <sup>6)</sup>
<b>Switching frequency</b>	1,000 Hz <sup>7)</sup>
<b>Angle of reception</b>	15°
<b>Connection type</b>	Cable, 4-wire, 2 m <sup>8)</sup>
<b>Cable material</b>	PVC
<b>Conductor cross-section</b>	0.18 mm <sup>2</sup>
<b>Circuit protection</b>	A <sup>9)</sup> B <sup>10)</sup> C <sup>11)</sup> D <sup>12)</sup>
<b>Protection class</b>	II
<b>Weight</b>	44 g
<b>Enclosure rating</b>	IP67
<b>Items supplied</b>	BEF-W150-A mounting bracket
<b>Ambient operating temperature</b>	-25 °C ... +55 °C
<b>Ambient storage temperature</b>	-40 °C ... +75 °C
<b>UL File No.</b>	NRNT2.E128350 & NRNT8.E128350

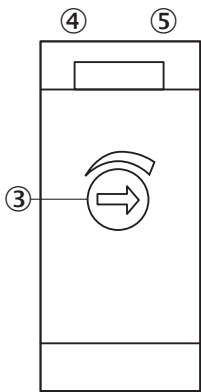
- 1) Limit values.
- 2) May not exceed or fall below U<sub>v</sub> tolerances.
- 3) Sender.
- 4) Receiver.
- 5) Without load.
- 6) Signal transit time with resistive load.
- 7) With light/dark ratio 1:1.
- 8) Do not bend below 0 °C.
- 9) A = V<sub>S</sub> connections reverse-polarity protected.
- 10) B = inputs and output reverse-polarity protected.
- 11) C = interference suppression.
- 12) D = outputs overcurrent and short-circuit protected.

## Classifications

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

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

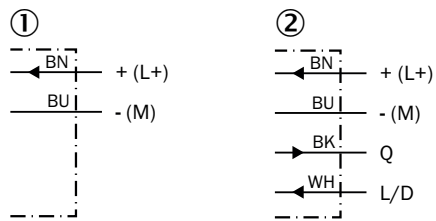
Adjustments possible



- ③ Sensitivity adjustment 270° (only WE)
- ④ Green LED: stability indicator (WE only)
- ⑤ Orange LED: output active (WE only)

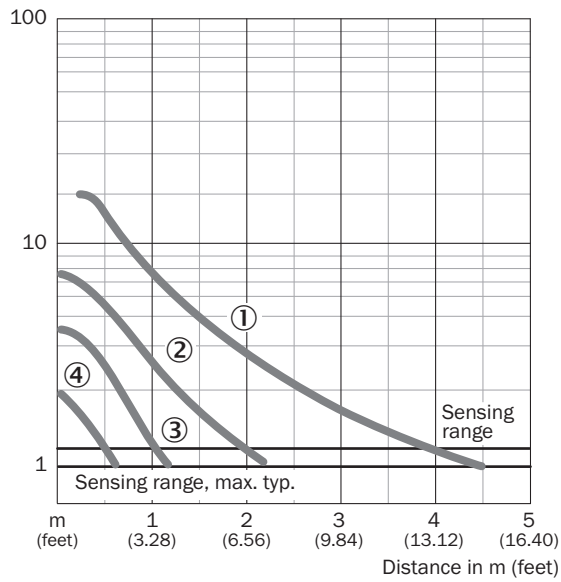
Connection diagram

Cd-058

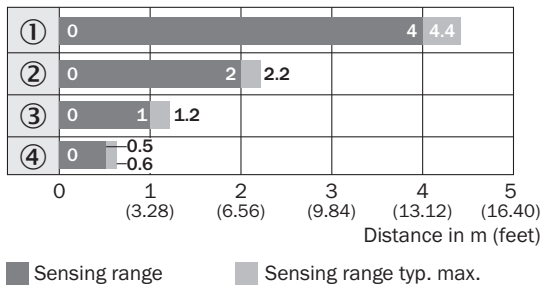


- ① Sender
- ② Receiver

### Characteristic curve



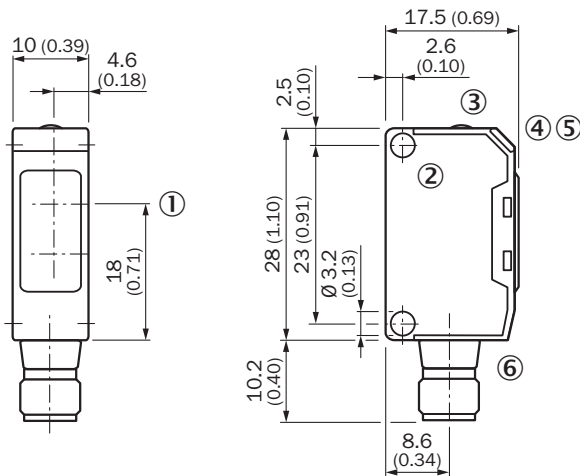
### Sensing range diagram



#### Reduction in sensing range with slotted masks

- ① Without slotted mask
- ② Mask aperture width 2.0 mm
- ③ Mask aperture width 1.0 mm
- ④ Mask aperture width 0.5 mm

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



- ① Standard direction of the material being detected
- ② Center of optical axis, receiver
- ③ Center of optical axis, sender
- ④ Mounting hole,  $\varnothing$  approx. 3.1 mm
- ⑤ Sensing range adjustment: potentiometer, 5 turns
- ⑥ LED indicator green: stability indicator
- ⑦ LED indicator orange: output active
- ⑧ Connection

**Recommended accessories**

Other models and accessories → [www.sick.com/W150](http://www.sick.com/W150)

	<b>Brief description</b>	<b>Type</b>	<b>Part no.</b>
<b>Universal bar clamp systems</b>			
	Plate N08 for universal clamp bracket, Zinc plated steel (sheet), Zinc die cast (clamping bracket), Universal clamp (5322626), mounting hardware	BEF-KHS-N08	2051607
<b>Mounting brackets and plates</b>			
	Mounting bracket for wall mounting, steel, zinc coated, mounting hardware included	BEF-W150-A	5306217
	Mounting bracket for floor mounting, steel, zinc coated, mounting hardware included	BEF-W150-B	5306279

## 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)