



# WT150-P460

W150

PRODUCT PORTFOLIO

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

Type	Part no.
WT150-P460	6011050

**Included in delivery:** BEF-W150-A (1)

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

### Detailed technical data

#### Features

<b>Sensor/ detection principle</b>	Photoelectric proximity sensor, Background suppression
<b>Dimensions (W x H x D)</b>	10 mm x 28 mm x 18 mm
<b>Housing design (light emission)</b>	Rectangular
<b>Sensing range max.</b>	2 mm ... 100 mm <sup>1)</sup>
<b>Type of light</b>	Visible red light
<b>Light source</b>	LED <sup>2)</sup>
<b>Angle of dispersion</b>	Approx. 5°
<b>Adjustment</b>	Potentiometer, 5 turns

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033).

<sup>2)</sup> Average service life: 100,000 h at T<sub>J</sub> = +25 °C.

#### Mechanics/electronics

<b>Supply voltage</b>	10 V DC ... 30 V DC <sup>1)</sup>
<b>Ripple</b>	± 10 % <sup>2)</sup>
<b>Power consumption</b>	≤ 20 mA <sup>3)</sup>
<b>Switching output</b>	PNP
<b>Switching mode</b>	Light/dark switching
<b>Switching mode selector</b>	Selectable via L/D control cable

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

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

<sup>3)</sup> Without load.

<sup>4)</sup> Signal transit time with resistive load.

<sup>5)</sup> With light/dark ratio 1:1.

<sup>6)</sup> A = V<sub>S</sub> connections reverse-polarity protected.

<sup>7)</sup> B = inputs and output reverse-polarity protected.

<sup>8)</sup> C = interference suppression.

<sup>9)</sup> D = outputs overcurrent and short-circuit protected.

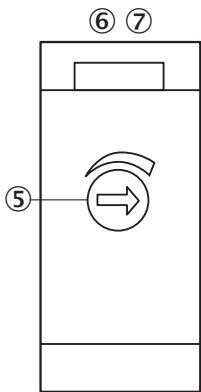
<b>Output current <math>I_{\max}</math>.</b>	≤ 100 mA
<b>Response time</b>	≤ 0.5 ms <sup>4)</sup>
<b>Switching frequency</b>	1,000 Hz <sup>5)</sup>
<b>Connection type</b>	Male connector M8, 4-pin
<b>Circuit protection</b>	A <sup>6)</sup> B <sup>7)</sup> C <sup>8)</sup> D <sup>9)</sup>
<b>Protection class</b>	II
<b>Weight</b>	7 g
<b>Housing material</b>	Plastic, ABS
<b>Optics material</b>	Plastic, PC
<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  $U_v$  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.

### Classifications

<b>ECI@ss 5.0</b>	27270904
<b>ECI@ss 5.1.4</b>	27270904
<b>ECI@ss 6.0</b>	27270904
<b>ECI@ss 6.2</b>	27270904
<b>ECI@ss 7.0</b>	27270904
<b>ECI@ss 8.0</b>	27270904
<b>ECI@ss 8.1</b>	27270904
<b>ECI@ss 9.0</b>	27270904
<b>ETIM 5.0</b>	EC002719
<b>ETIM 6.0</b>	EC002719
<b>UNSPSC 16.0901</b>	39121528

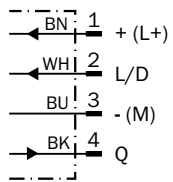
### Adjustments possible



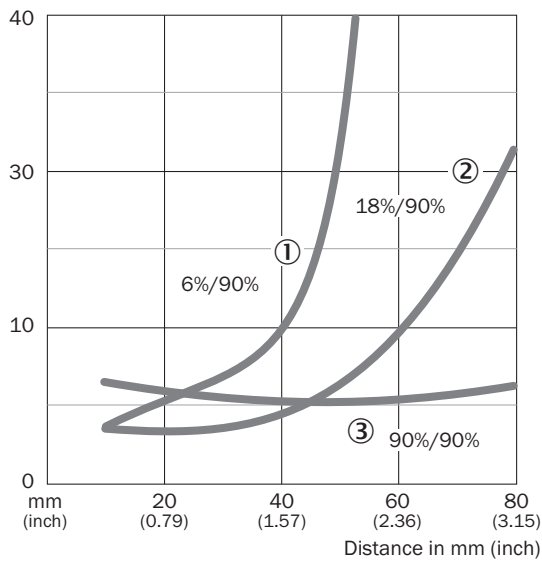
- ⑤ Sensing range adjustment: potentiometer, 5 turns
- ⑥ LED indicator green: stability indicator
- ⑦ LED indicator orange: output active

### Connection diagram

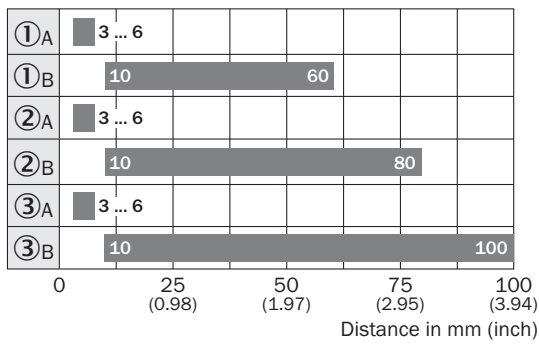
cd-087



### Characteristic curve



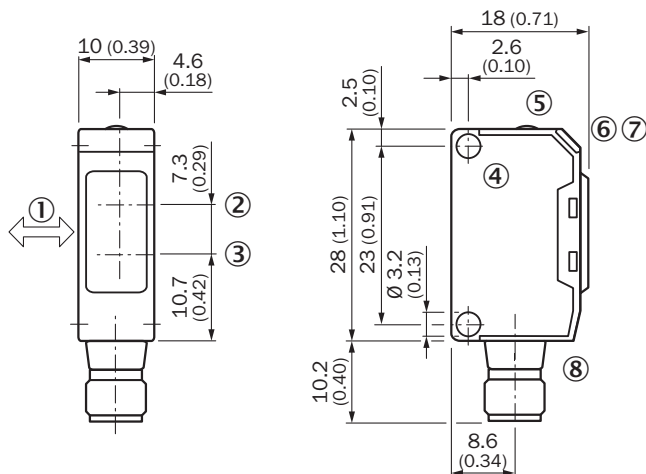
## Sensing range diagram



■ Sensing range




- ① Sensing range on black <sup>12)</sup>/white background
- ② Sensing range on gray <sup>12)</sup>/white background
- ③ Sensing range on white <sup>12)</sup>/white background
- A Sensing range control set to MIN
- B Sensing range control set to MAX

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



### Recommended accessories

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

	Brief description	Type	Part no.
Universal bar clamp systems			
	Plate NO8 for universal clamp bracket, Zinc plated steel (sheet), Zinc die cast (clamping bracket), Universal clamp (5322626), mounting hardware	BEF-KHS-N08	2051607
Mounting brackets and plates			
	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)