



Photoelectric sensors  
W150, Through-beam photoelectric sensor

WS/WE150-P132



**Model Name** > [WS/WE150-P132](#)  
**Part No.** > [6011030](#)



*Illustration may differ*

**At a glance**

- Sensing distance of up to 4.4 m
- Sensitivity control on device via potentiometer
- Light/dark switching selectable via control wire

**Your benefits**

- Reliable detection of the smallest of objects
- Reliable detection of fast-moving objects
- Highly visible red light for easy alignment



**Features**

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

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

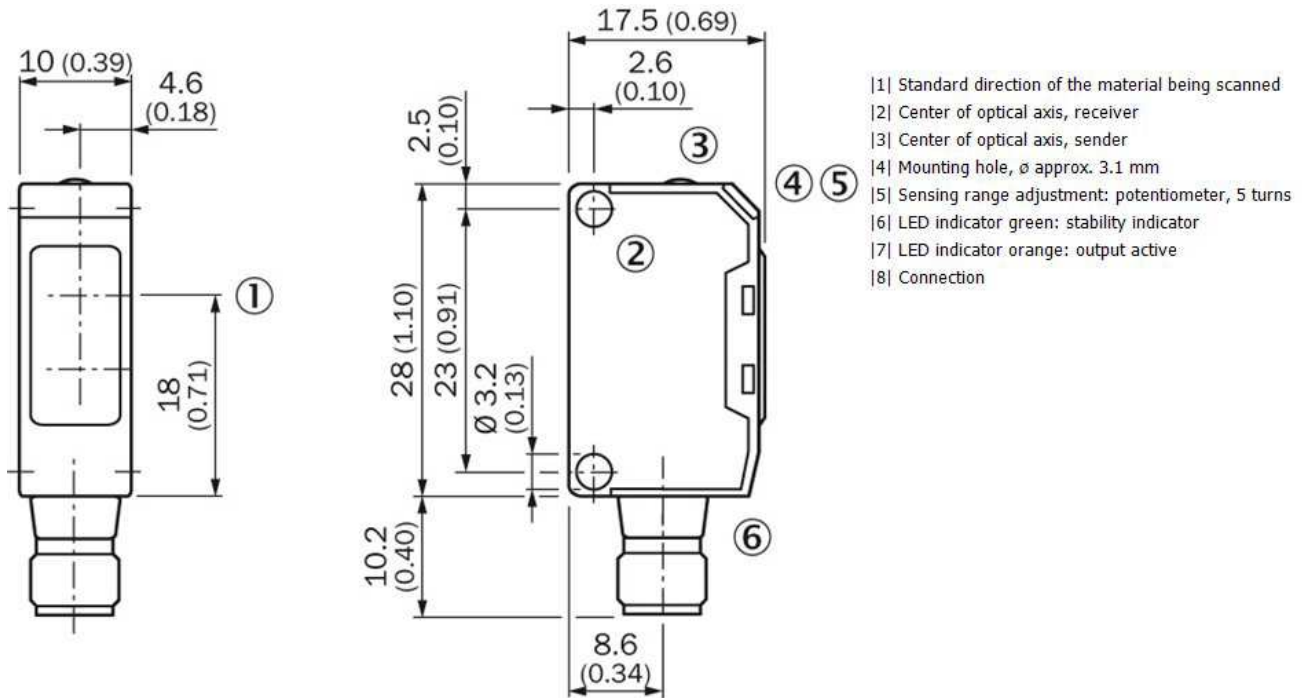
**Mechanics/electronics**

Supply voltage:	10 V DC ... 30 V DC <sup>1)</sup>
Residual ripple:	± 10 % <sup>2)</sup>
Power consumption:::	15 <sup>3)</sup> 4) 5) 20
Output type:	PNP
Switching mode:	Light/dark switching
Output characteristic:	Open collector
Switching mode selector:	Control cable
Output current I <sub>max.</sub> :	100
Response time:	≤ 0.5 ms <sup>6)</sup>
Switching frequency:	1,000 <sup>7)</sup>
Angle of reception:	15 °
Electrical connection:	Cable, 4-wire, 2 m <sup>8)</sup>

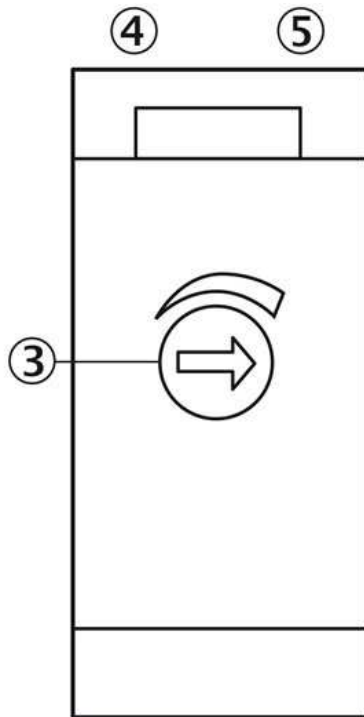
Cable material: PVC  
 Conductor cross-section: 0.18 mm<sup>2</sup>  
 Circuit protection::: A, B, C, D <sup>9)</sup> 10) 11) 12)  
 Protection class: II  
 Weight: 44 g  
 Enclosure rating: IP 67  
 Items supplied: BEF-W150-A mounting bracket  
 Ambient temperature operation: -25 °C ... 55 °C  
 Ambient storage temperature: -40 °C ... 75 °C  
 UL File-No.: UL No. NRNT2.E128350 & cUL No. NRNT8.E128350

1) Limit values 2) May not exceed or fall short of V<sub>S</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

### Dimensional drawing



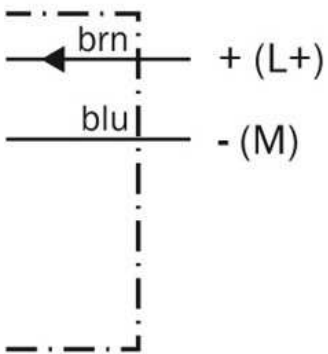
## Adjustments possible



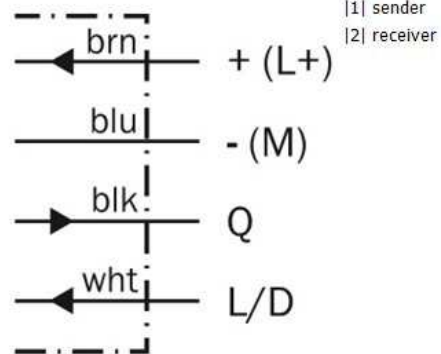
- |3| Sensitivity adjustment 270° (only WE)
- |4| LED indicator green: stability indicator (only WE)
- |5| LED indicator orange: output active (only WE)

## Connection diagram

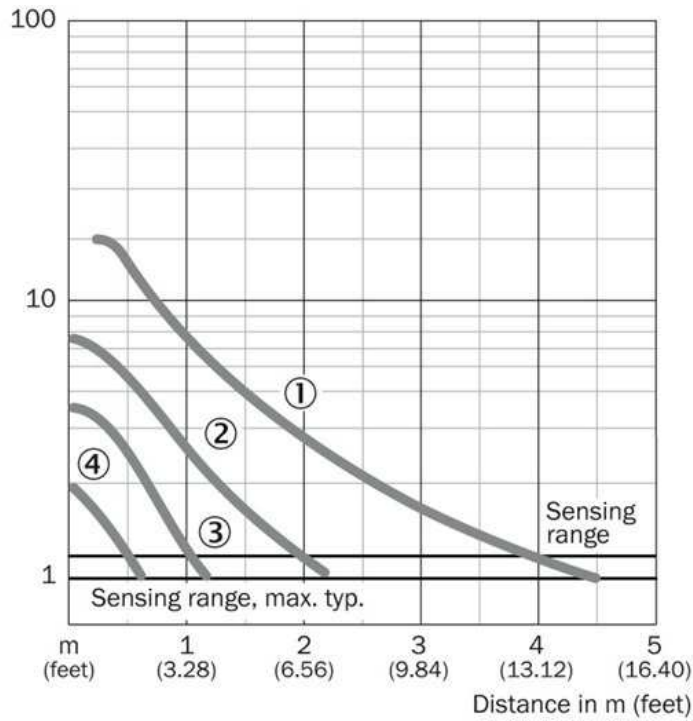
①



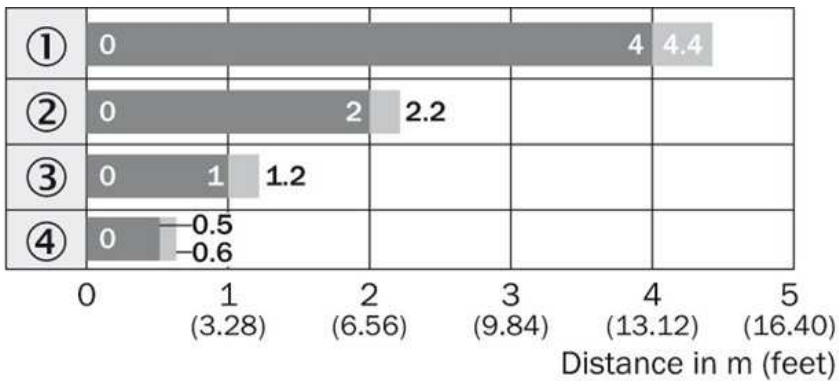
②



**Characteristic curve**



**Sensing range diagram**



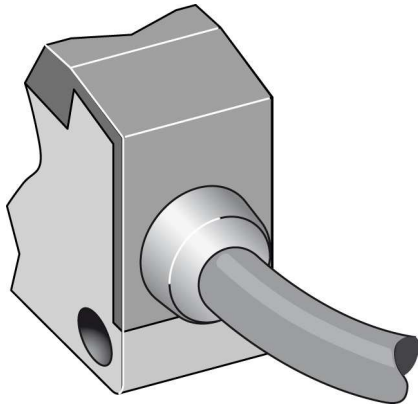
■ Sensing range      ■ Sensing range typ. max.

**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

Connection type

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