



Photoelectric sensors  
W8 Inox, Through-beam photoelectric sensor

WSE8-P2231V



**Model Name** > [WSE8-P2231V](#)  
**Part No.** > [6041491](#)



*Illustration may differ*

**At a glance**

- Rugged IP 69K stainless steel housing 1.4404/316L
- Front screen made of high-performance plastic PPSU that is resistant to heat and chemicals
- Potentiometer is made of mechanically stable high-performance PEEK plastic
- Constructed from FDA-approved materials
- Well-defined, highly visible light spot
- M3 threaded mounting holes and stainless steel mounting bracket (1.4301/304) included with delivery

**Your benefits**

- High reliability due to an IP 69K stainless steel housing, which withstands aggressive cleaning agents or cooling lubricants
- Quick and easy mounting due to universally compatible M3 threaded mounting holes
- Compact housing saves space (equal to W8 plastic version)
- Highly visible light spot provides easy alignment
- All necessary accessories are included, which simplifies installation



**Features**

Sensor/detection principle:	Through-beam photoelectric sensor
Dimensions (W x H x D):	11 mm x 21 mm x 33.3 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0 m ... 45 m
Sensing range:	0 m ... 20 m
Type of light:	Visible red light
Light source:	LED <sup>1)</sup>
Wave length:	645 nm
Adjustment of operating distance:	Potentiometer, 270°
Angle of dispersion:	Ca. 2.5 °
Light spot size (distance):	Ø 900 mm (20 m)

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

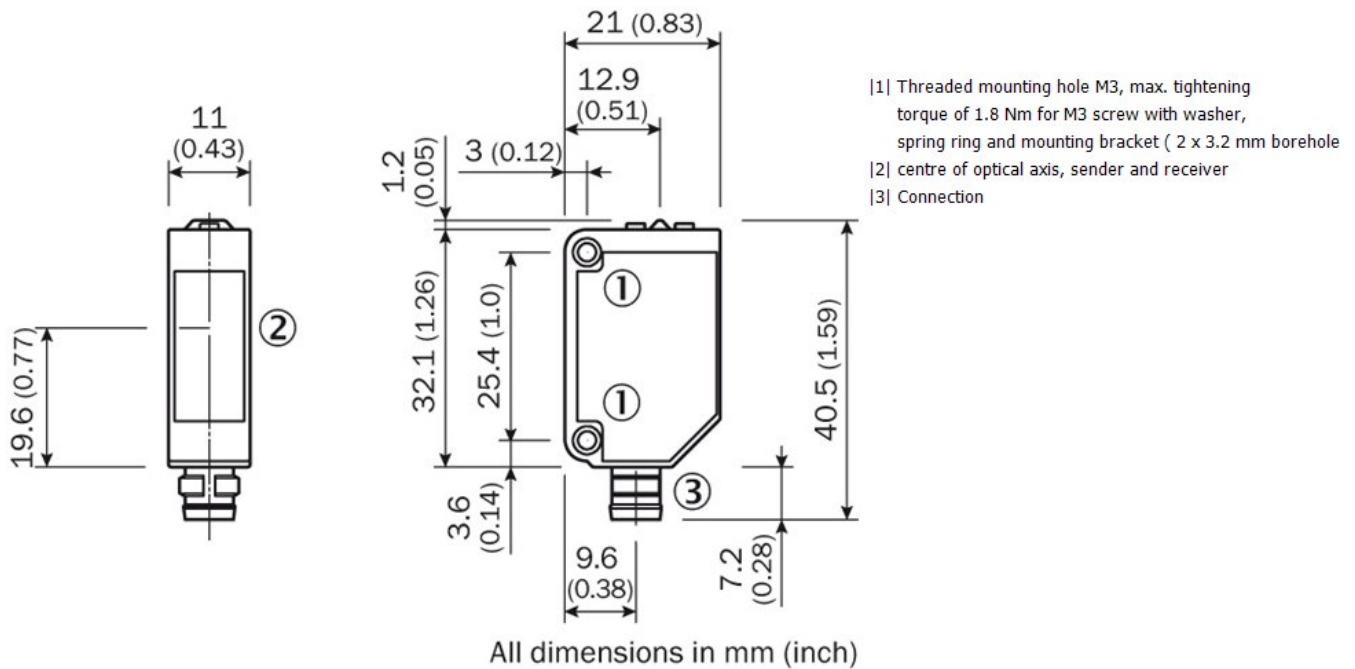
**Mechanics/electronics**

Supply voltage:	10 V DC ... 30 V DC <sup>1)</sup>
Ripple:	± 10 % <sup>2)</sup>
Power consumption, sender:	≤ 15 mA <sup>3)</sup>

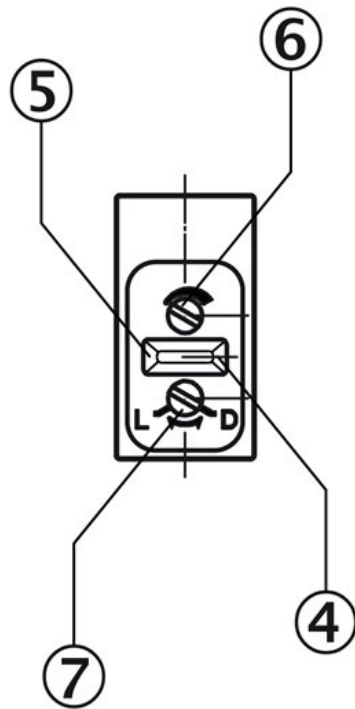
Power consumption, receiver:	≤ 20 mA <sup>4)</sup>
Output type:	PNP
Switching mode:	Light/dark-switching
Switching mode selector:	Selectable via light/dark selector
Signal voltage PNP HIGH/LOW:	Approx. VS - 1.8 V/0 V
Output current I <sub>max</sub> ·:	100 mA
Response time:	≤ 0.5 ms <sup>5)</sup>
Switching frequency:	1,000 Hz <sup>6)</sup>
Angle of reception:	Ca. 15 °
Connection type:	Connector M8, 4-pin
Circuit protection:::	A, B, D <sup>7) 8) 9)</sup>
Protection class:	III
Weight:	83.6 g
Housing material:	Stainless steel, Stainless steel V4A (1.4404, 316L)
Enclosure rating:	IP 69K
Items supplied:	Stainless steel mounting bracket (1.4301/304) BEF-W100-A
Ambient operating temperature:	-30 °C ... 60 °C <sup>10)</sup>
Ambient storage temperature:	-40 °C ... 70 °C
UL File-No.:	FDA

<sup>1)</sup> Limit values, reverse-polarity protected operation in short-circuit protected network max. 8 A <sup>2)</sup> May not exceed or fall short of V<sub>S</sub> tolerances <sup>3) 4)</sup> Receiver without load <sup>5)</sup> Signal transit time with resistive load <sup>6)</sup> With light/dark ratio 1:1 <sup>7)</sup> A = V<sub>S</sub> connections reverse-polarity protected <sup>8)</sup> B = inputs and output reverse-polarity protected <sup>9)</sup> D = outputs overcurrent and short-circuit protected <sup>10)</sup> At an air humidity of 35 ... 95 %

## Dimensional drawing

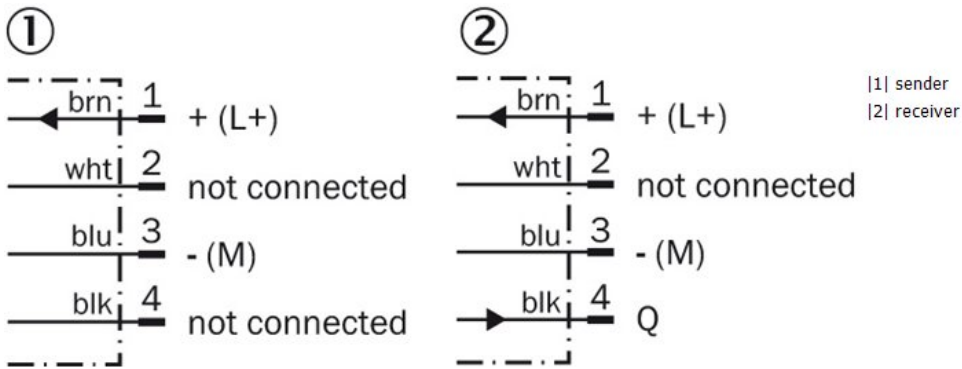


Adjustments possible

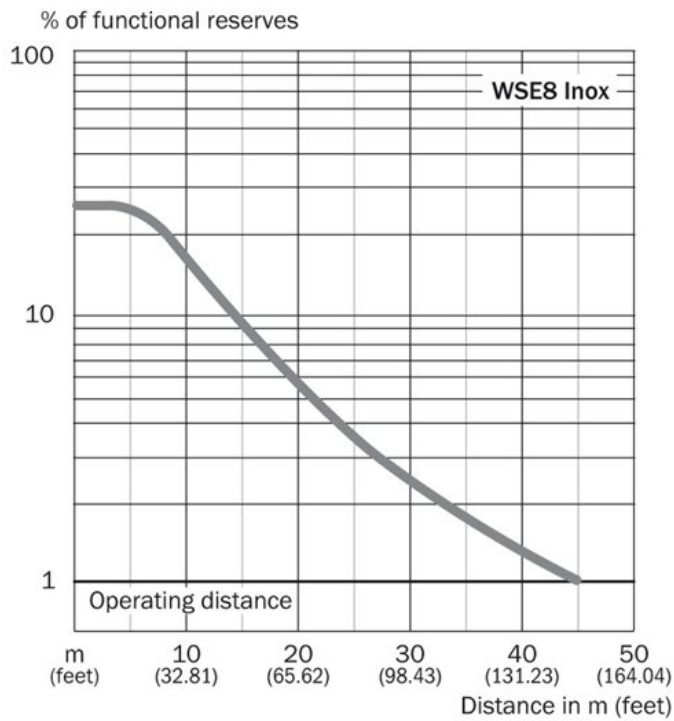


- [4] Orange LED indicator : switching output active (only WE)
- [5] LED indicator green: stability  
indicator goes on if light received < 0.  
9 or > 1.1 (based on switching threshold Q = 1)
- [6] Sensitivity control; Potentiometer 270° on WE
- [7] Light/ dark rotary switch L =  
light switching, D = dark switching

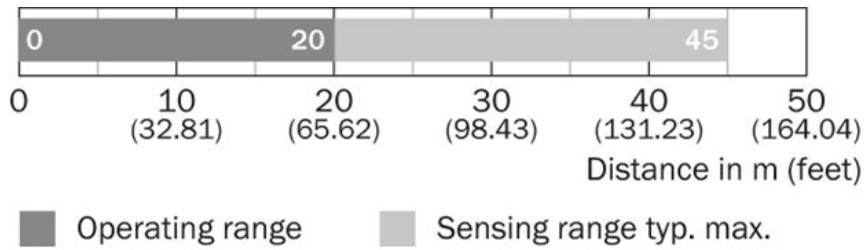
Connection diagram



### Characteristic curve

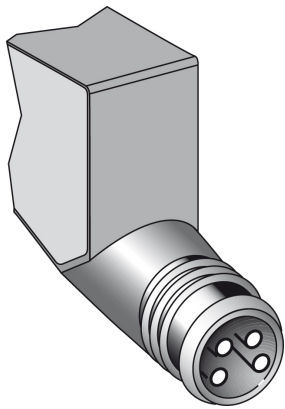


### Sensing range diagram



**Connection type**

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