



Photoelectric sensors W8 Inox, Through-beam photoelectric sensor

WSE8-P2131V



Model Name > [WSE8-P2131V](#)
Part No. > [6041490](#)



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 ¹⁾
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)

¹⁾ Average service life of 100,000 h at T_A = +25 °C

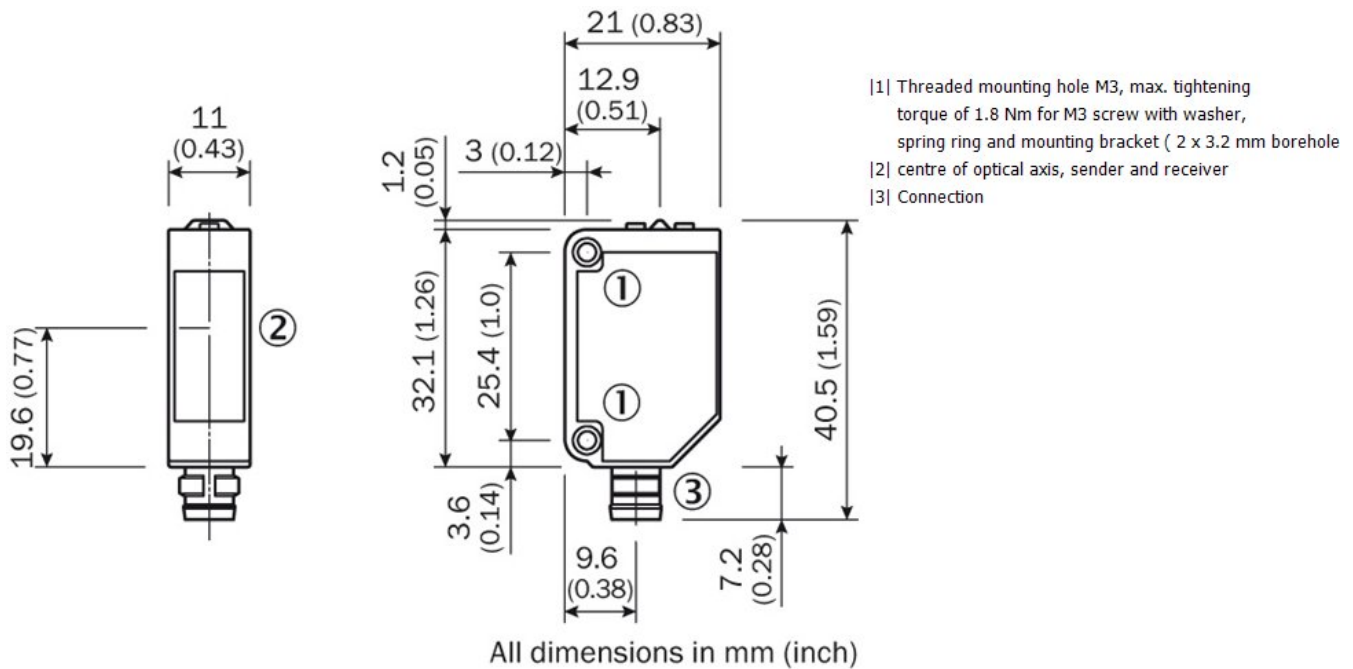
Mechanics/electronics

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

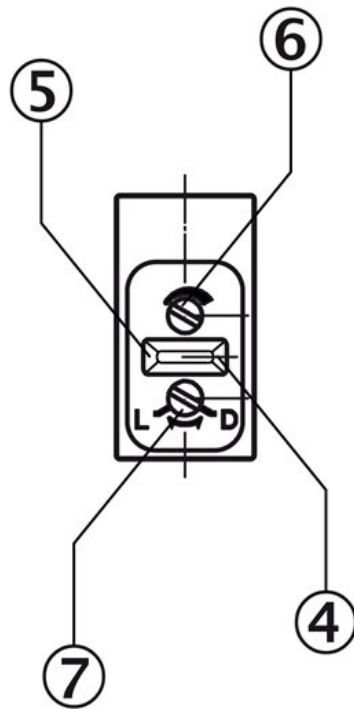
Power consumption, receiver:	$\leq 20 \text{ mA}$ ⁴⁾
Output type:	PNP
Switching mode:	Light/dark-switching
Switching mode selector:	Selectable via light/dark selector
Signal voltage PNP HIGH/LOW:	Approx. $V_S - 1.8 \text{ V} / 0 \text{ V}$
Output current I_{max} :	100 mA
Response time:	$\leq 0.5 \text{ ms}$ ⁵⁾
Switching frequency:	1,000 Hz ⁶⁾
Angle of reception:	Ca. 15°
Connection type:	Connector M8, 3-pin
Circuit protection:::	A, B, D ⁷⁾ ⁸⁾ ⁹⁾
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:	$-30^\circ \text{C} \dots 60^\circ \text{C}$ ¹⁰⁾
Ambient storage temperature:	$-40^\circ \text{C} \dots 70^\circ \text{C}$
UL File-No.:	FDA

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

Dimensional drawing



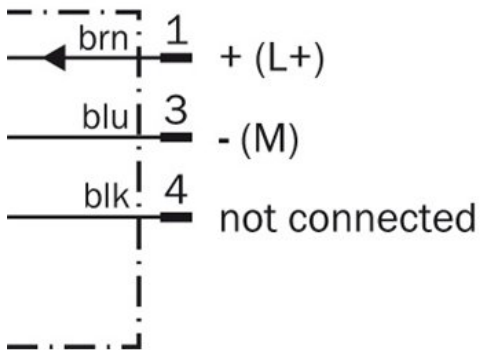
Adjustments possible



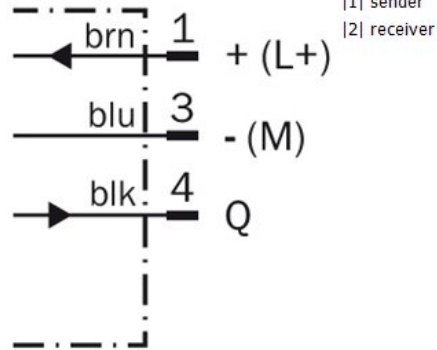
- [4] Orange LED indicator : switching output active (only WE)
- [5] LED indicator green: stability
indicator goes on if light received < 0 .
9 or > 1.1 (based on switching threshold $Q = 1$)
- [6] Sensitivity control; Potentiometer 270° on WE
- [7] Light/ dark rotary switch L =
light switching, D =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

Connection diagram

①

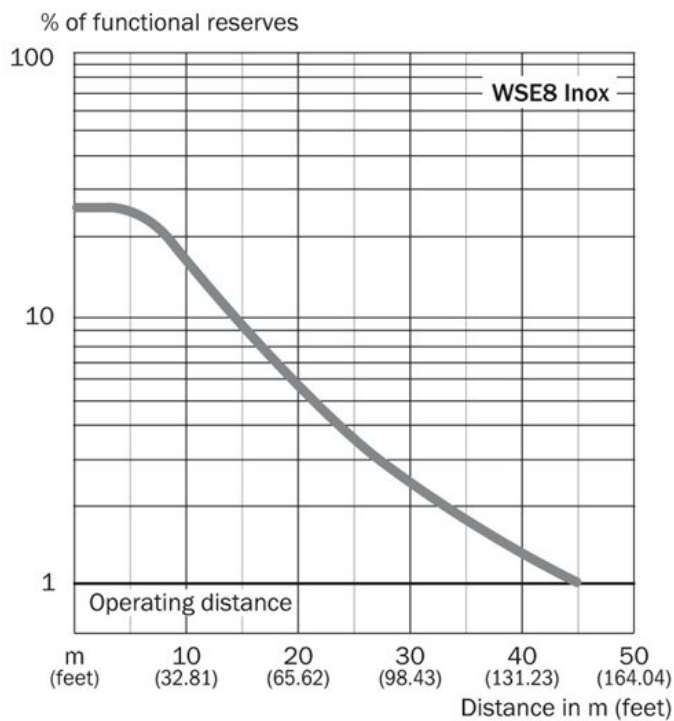


②

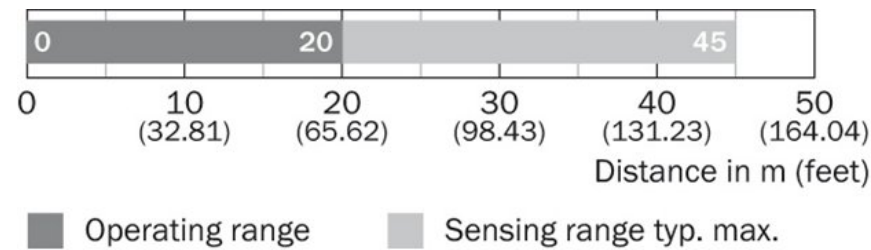


- [1] sender
- [2] receiver

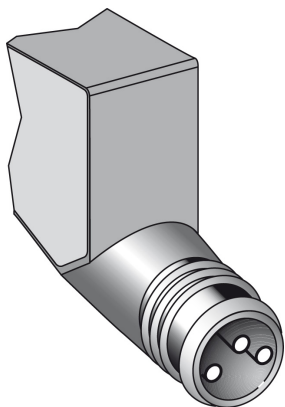
Characteristic curve



Sensing range diagram



Connection type



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