



Photoelectric sensors  
W8 Inox, Through-beam photoelectric sensor

WSE8-N2231V



**Model Name** > [WSE8-N2231V](#)  
**Part No.** > [6041487](#)



*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

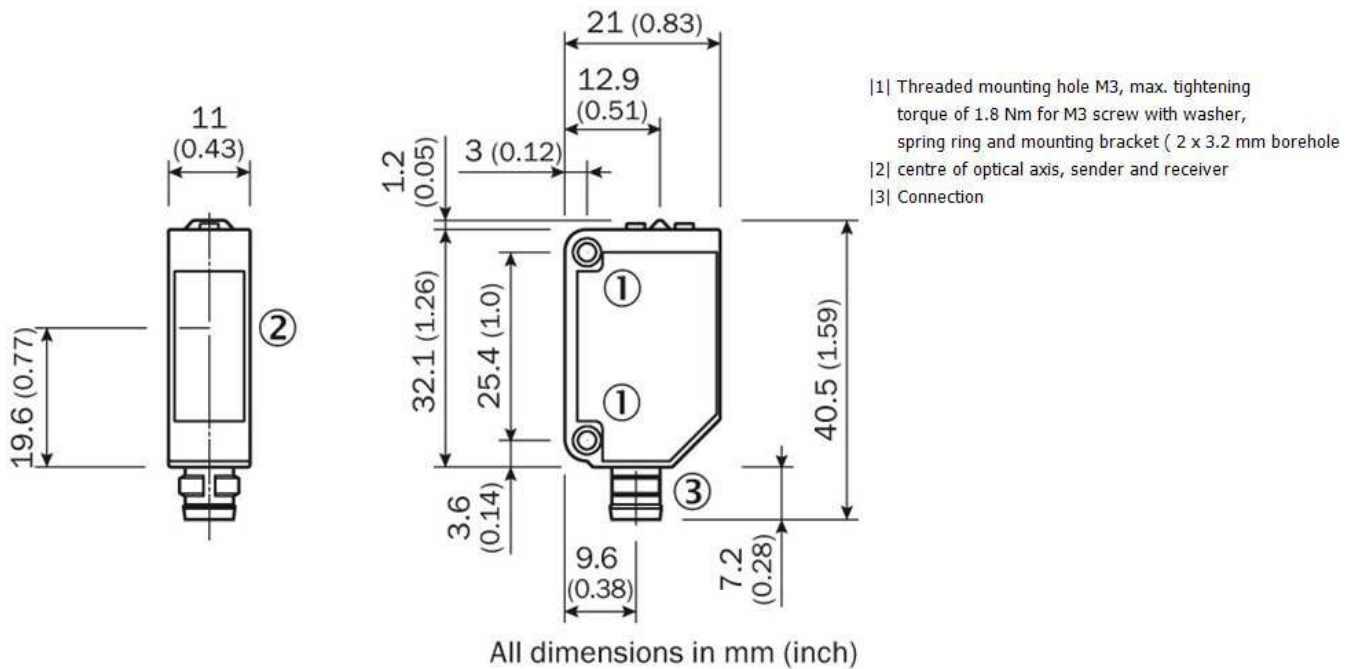
**Mechanics/electronics**

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

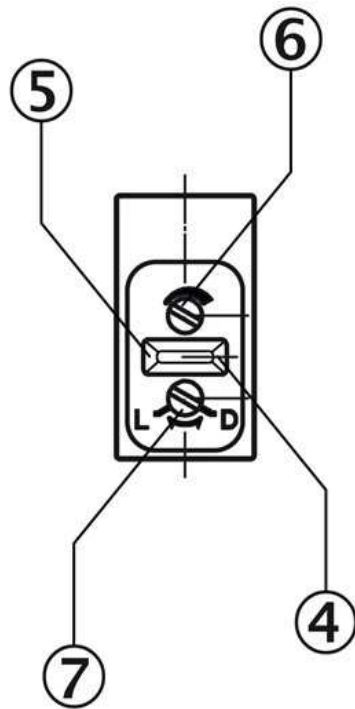
Power consumption, receiver:	≤ 20 mA <sup>4)</sup>
Output type:	NPN
Switching mode:	Light/dark switching
Switching mode selector:	Selectable via light/dark selector
Signal voltage NPN HIGH/LOW:	Approx. $V_S / < 1.8$ V
Output current I <sub>max</sub> ·:	100 mA
Response time:	≤ 0.5 ms <sup>5)</sup>
Switching frequency:	1,000 Hz <sup>6)</sup>
Angle of reception:	Ca. 15 °
Electrical connection:	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 temperature operation:	-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  $V_S$  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 =  $V_S$  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

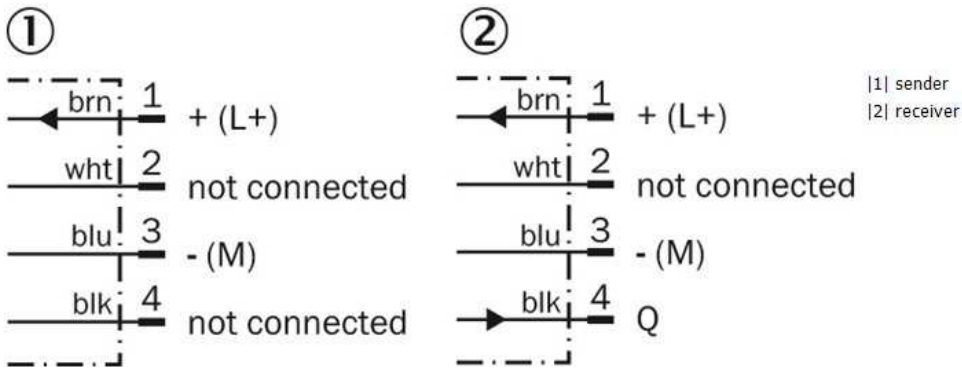


Adjustments possible

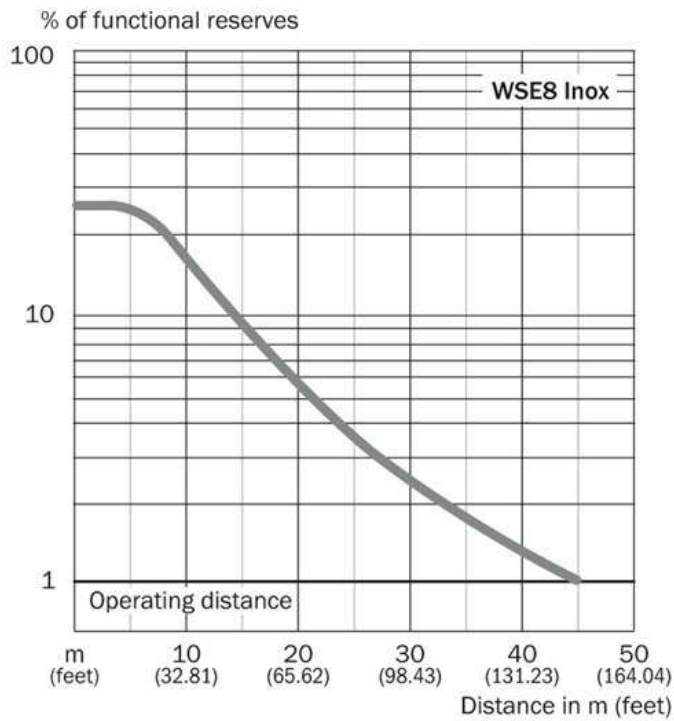


- [4] Orange LED indicator : switching output active (only WE)
- [5] LED indicator green: stability  
indicator goes on if light received < 0.  
9 or > 1.1 (based on switching threshold Q = 1)
- [6] Sensitivity control; Potentiometer 270° on WE
- [7] Light/ dark rotary switch L =  
light switching, D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

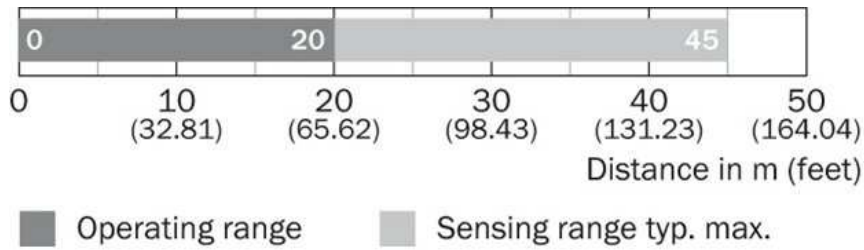
Connection diagram



### Characteristic curve

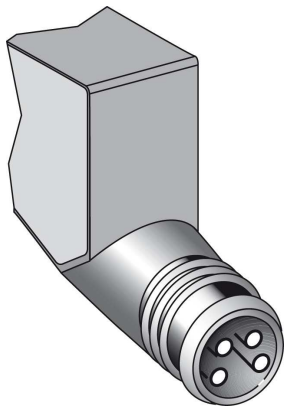


### Sensing range diagram



Connection type

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**Australia**

Phone +61 3 9457 0600  
1800 33 48 02 – tollfree  
E-Mail sales@sick.com.au

**Belgium/Luxembourg**

Phone +32 (0)2 466 55 66  
E-Mail info@sick.be

**Brasil**

Phone +55 11 3215-4900  
E-Mail marketing@sick.com.br

**Canada**

Phone +1 905 771 14 44  
E-Mail information@sick.com

**Česká republika**

Phone +420 2 57 91 18 50  
E-Mail sick@sick.cz

**China**

Phone +86 4000 121 000  
E-Mail info.china@sick.net.cn  
Phone +852-2153 6300  
E-Mail ghk@sick.com.hk

**Danmark**

Phone +45 45 82 64 00  
E-Mail sick@sick.dk

**Deutschland**

Phone +49 211 5301-301  
E-Mail info@sick.de

**España**

Phone +34 93 480 31 00  
E-Mail info@sick.es

**France**

Phone +33 1 64 62 35 00  
E-Mail info@sick.fr

**Great Britain**

Phone +44 (0)1727 831121  
E-Mail info@sick.co.uk

**India**

Phone +91-22-4033 8333  
E-Mail info@sick-india.com

**Israel**

Phone +972-4-6881000  
E-Mail info@sick-sensors.com

**Italia**

Phone +39 02 27 43 41  
E-Mail info@sick.it

**Japan**

Phone +81 (0)3 5309 2112  
E-Mail support@sick.jp

**Magyarország**

Phone +36 1 371 2680  
E-Mail office@sick.hu

**Nederland**

Phone +31 (0)30 229 25 44  
E-Mail info@sick.nl

**Norge**

Phone +47 67 81 50 00  
E-Mail sick@sick.no

**Österreich**

Phone +43 (0)22 36 62 28 8-0  
E-Mail office@sick.at

**Polska**

Phone +48 22 837 40 50  
E-Mail info@sick.pl

**România**

Phone +40 356 171 120  
E-Mail office@sick.ro

**Russia**

Phone +7-495-775-05-30  
E-Mail info@sick.ru

**Schweiz**

Phone +41 41 619 29 39  
E-Mail contact@sick.ch

**Singapore**

Phone +65 6744 3732  
E-Mail sales.gsg@sick.com

**Slovenija**

Phone +386 (0)1-47 69 990  
E-Mail office@sick.si

**South Africa**

Phone +27 11 472 3733  
E-Mail info@sickautomation.co.za

**South Korea**

Phone +82 2 786 6321/4  
E-Mail info@sickkorea.net

**Suomi**

Phone +358-9-25 15 800  
E-Mail sick@sick.fi

**Sverige**

Phone +46 10 110 10 00  
E-Mail info@sick.se

**Taiwan**

Phone +886 2 2375-6288  
E-Mail sales@sick.com.tw

**Türkiye**

Phone +90 (216) 528 50 00  
E-Mail info@sick.com.tr

**United Arab Emirates**

Phone +971 (0) 4 88 65 878  
E-Mail info@sick.ae

**USA/México**

Phone +1(952) 941-6780  
1 (800) 325-7425 – tollfree  
E-Mail info@sickusa.com

More representatives and agencies  
at [www.sick.com](http://www.sick.com)