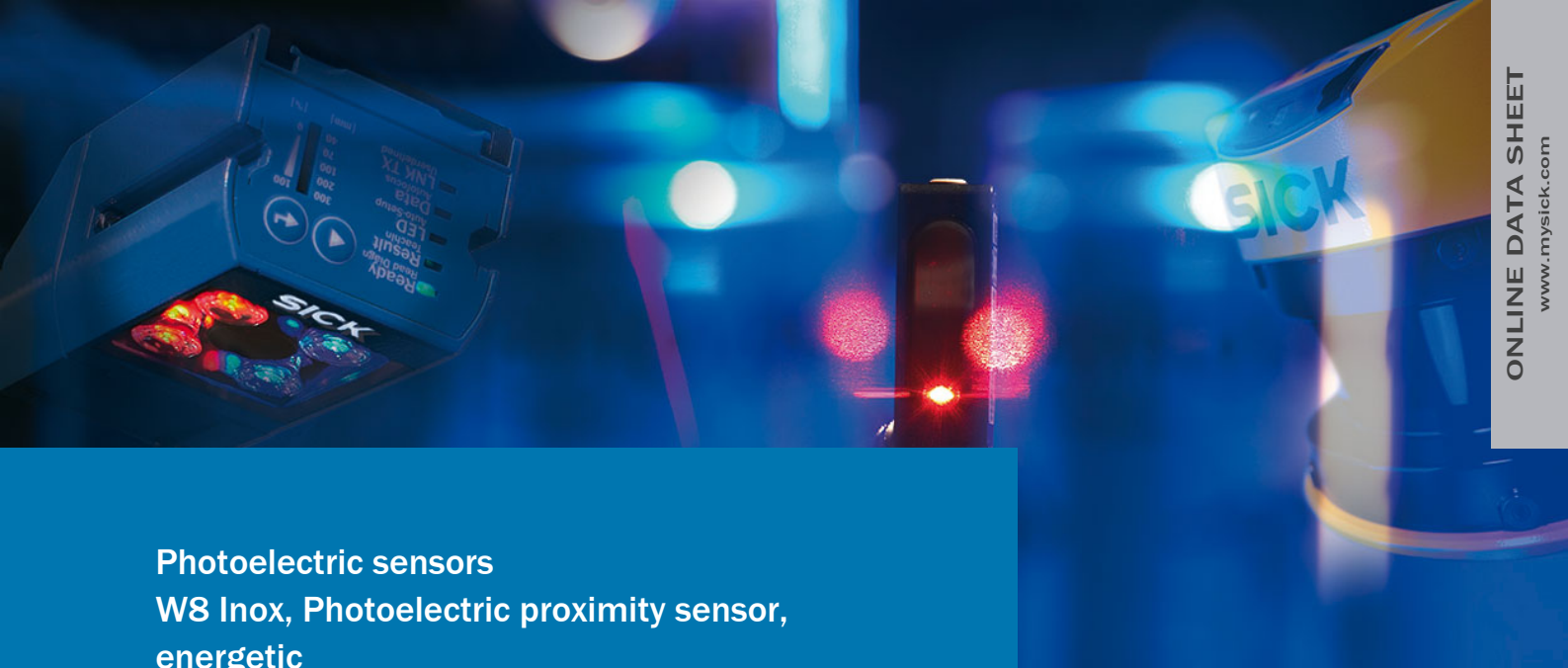




## Photoelectric sensors W8 Inox, Photoelectric proximity sensor, energetic

WTE8-N1131V



**Model Name** > WTE8-N1131V  
**Part No.** > 6041469



*Illustration may differ*

#### At a glance

- Rugged IP 69K stainless steel housing 1.4404/316L
- Front screen made of high-performance PPSU plastic that is resistant to heat and chemicals
- Potentiometer 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:       | Photoelectric proximity sensor, energetic |
| Dimensions (W x H x D):           | 11 mm x 21 mm x 33.3 mm                   |
| Housing design (light emission):  | Rectangular                               |
| Sensing range max.:               | 0 mm ... 950 mm <sup>1)</sup>             |
| Sensing range:                    | 0 mm ... 700 mm <sup>2)</sup>             |
| Type of light:                    | Visible red light                         |
| Light source:                     | LED <sup>3)</sup>                         |
| Wave length:                      | 645 nm                                    |
| Light spot diameter (distance):   | Ø 35 mm (700 mm)                          |
| Adjustment of operating distance: | Potentiometer, 270°                       |
| Angle of dispersion:              | Ca. 3 °                                   |

<sup>1) 2)</sup> Object with 90 % reflectance (referred to standard white DIN 5033) <sup>3)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C

#### Mechanics/electronics

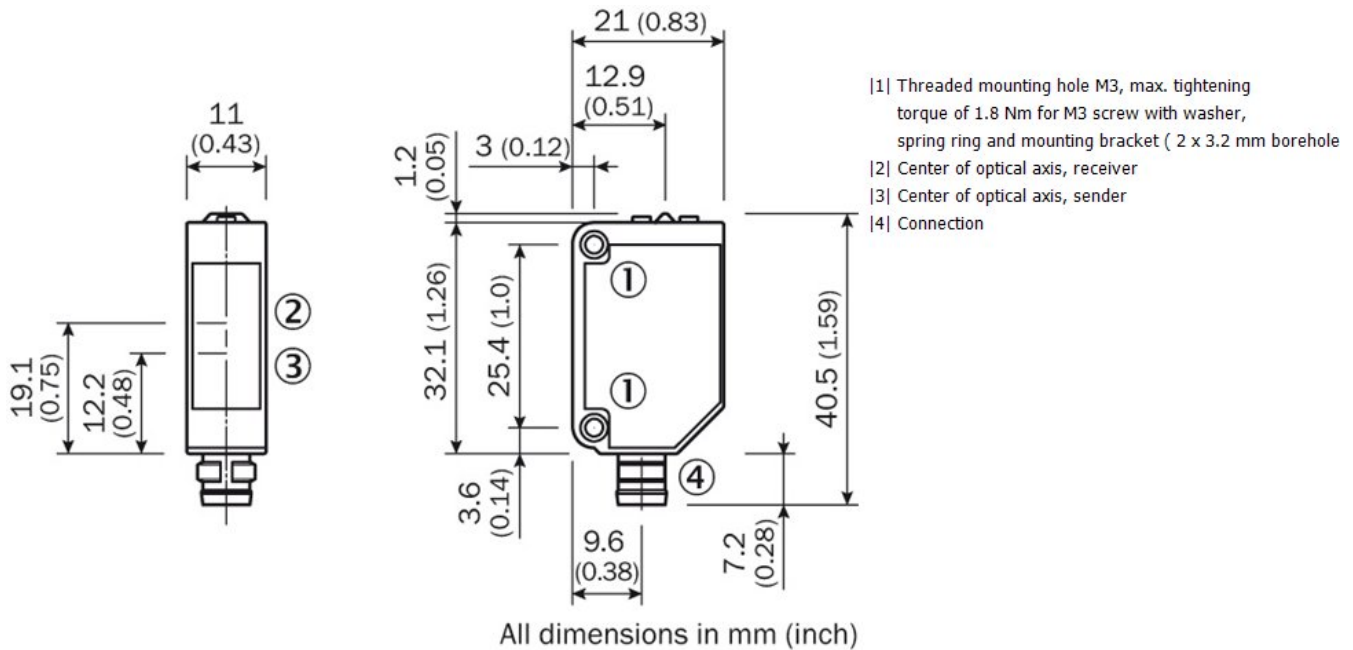
|                    |                                   |
|--------------------|-----------------------------------|
| Supply voltage:    | 10 V DC ... 30 V DC <sup>1)</sup> |
| Ripple:            | ± 10 % <sup>2)</sup>              |
| Power consumption: | ≤ 30 mA <sup>3)</sup>             |

|                                   |                                                               |
|-----------------------------------|---------------------------------------------------------------|
| Output type:                      | NPN, Light/dark-switching, selectable via light/dark selector |
| Signal voltage NPN HIGH/LOW:      | Approx. $V_S / < 1.8 \text{ V}$                               |
| Output current I <sub>max</sub> : | 100 mA                                                        |
| Response time:                    | $\leq 0.5 \text{ ms}$ <sup>4)</sup>                           |
| Switching frequency:              | 1,000 Hz <sup>5)</sup>                                        |
| Connection type:                  | Cable, 3-wire, 2 m <sup>6)</sup>                              |
| Cable material:                   | PVC                                                           |
| Conductor cross-section:          | 0.18 mm <sup>2</sup>                                          |
| Circuit protection:::             | A, B, D <sup>7)</sup> <sup>8)</sup> <sup>9)</sup>             |
| Protection class:                 | III                                                           |
| Weight:                           | 83.6 g                                                        |
| Housing material:                 | 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                                                           |

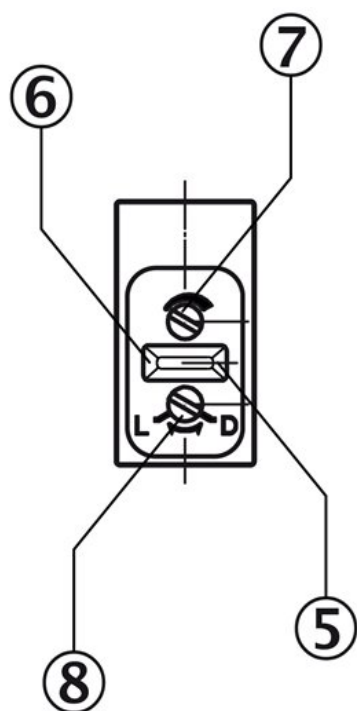
<sup>1)</sup> Limit values, reverse-polarity protected operation in short-circuit protected network max. 8 A <sup>2)</sup> May not exceed or fall short of  $V_S$  tolerances <sup>3)</sup> Without load <sup>4)</sup>

Signal transit time with resistive load <sup>5)</sup> With light/dark ratio 1:1 <sup>6)</sup> Do not bend below 0 °C <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

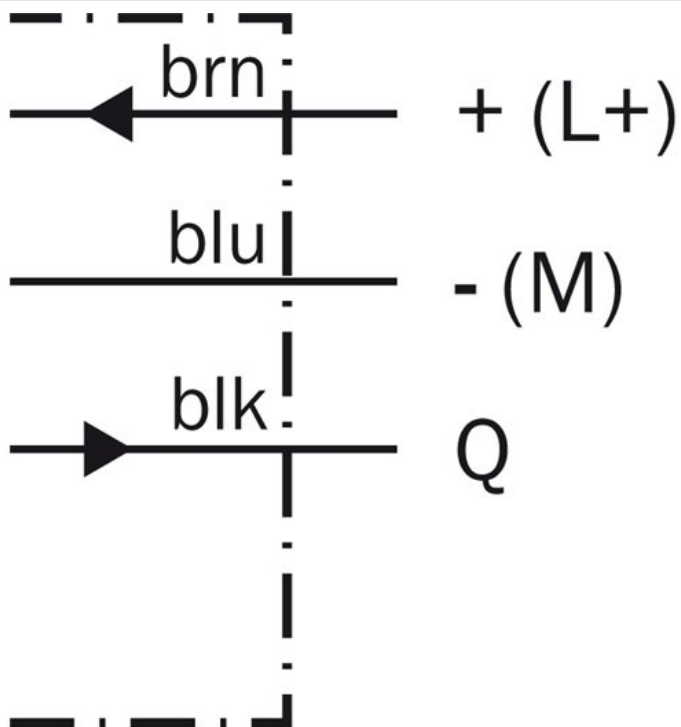


## Adjustments possible

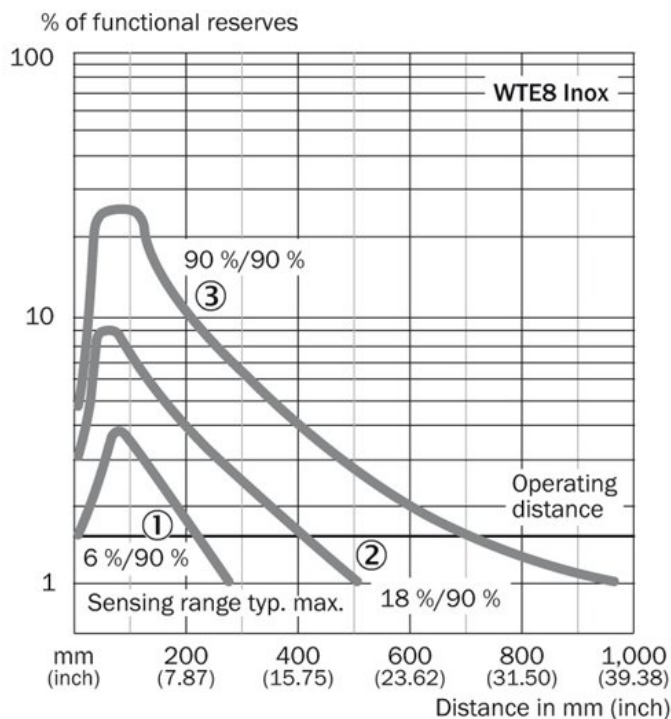


- [5] Orange LED indicator : switching output active
- [6] LED indicator green: stability  
indicator goes on if light received  $< 0.9$  or  $> 1.1$  (based on switching threshold  $Q = 1$ )
- [7] Sensitivity control; Potentiometer  $270^\circ$
- [8] Light/ dark rotary switch L =  
light switching, D = dark switching

## Connection diagram

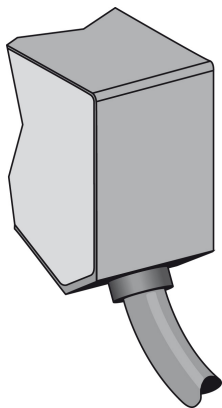


Characteristic curve

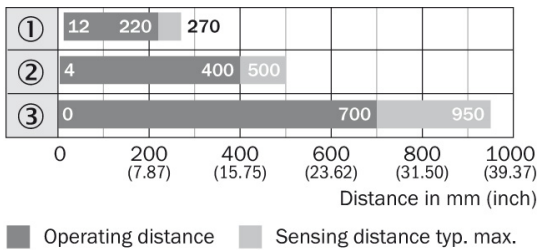


- |1| Sensing range on black, 6 % remission
- |2| Sensing range on grey, 18 % remission
- |3| Sensing range on white, 90 % remission

Connection type



Sensing range diagram



- ① Sensing distance on black, 6 % remission
- ② Sensing distance on gray, 18 % remission
- ③ Sensing distance on white, 90 % remission

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