



## Photoelectric sensors W4-3, Through-beam photoelectric sensor

WSE4-3E3130



**Model Name** > [WSE4-3E3130](#)  
**Part No.** > [1028174](#)



*Illustration may differ*

#### At a glance

- Sensing range from 0 - 4 m
- PinPoint LED technology for highly visible, brilliant light spot
- Rugged plastic housing with M3 metal inserts

#### Your benefits

- The PinPoint LED's sharply defined, intense light spot makes alignment quick and easy
- Low-cost machine integration due to small dimensions that enable mounting in areas with space restrictions
- Rugged mounting system with M3 threaded metal inserts reduces maintenance costs due to a long service life



#### Features

|                                  |                                   |
|----------------------------------|-----------------------------------|
| Sensor/detection principle:      | Through-beam photoelectric sensor |
| Dimensions (W x H x D):          | 16 mm x 39.5 mm x 12 mm           |
| Housing design (light emission): | Rectangular                       |
| Sensing range max.:              | 0 m ... 4 m                       |
| Sensing range:                   | 0 m ... 3.5 m                     |
| Type of light:                   | Visible red light                 |
| Light source:                    | PinPoint LED <sup>1)</sup>        |
| Wave length:                     | 650 nm                            |
| Light spot size (distance):      | Ø 210 mm (2 m)                    |

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

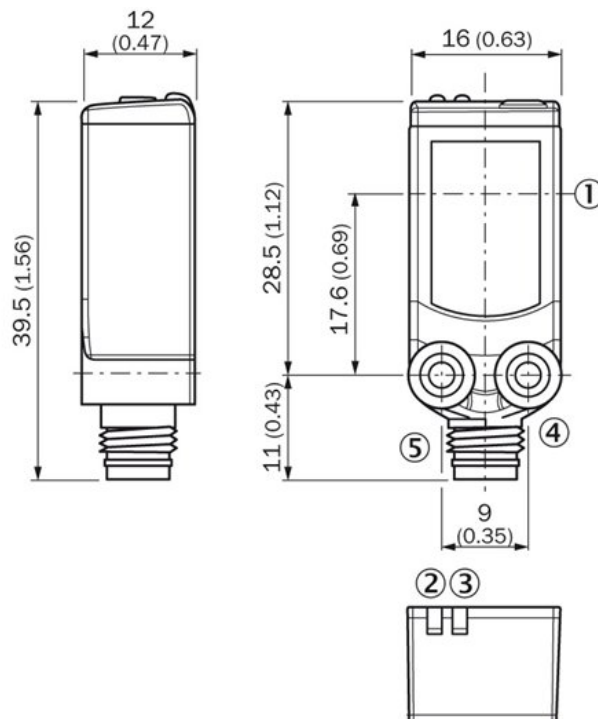
#### Mechanics/electronics

|                                    |                                                      |
|------------------------------------|------------------------------------------------------|
| Supply voltage:                    | 10 V DC ... 30 V DC <sup>1)</sup>                    |
| Power consumption:                 | ≤ 20 mA <sup>2) 3)</sup>                             |
| Output type:                       | NPN                                                  |
| Switching mode:                    | Dark-switching                                       |
| Output current I <sub>max.</sub> : | ≤ 100 mA                                             |
| Response time:                     | < 0.5 ms <sup>4)</sup>                               |
| Switching frequency:               | 1,000 Hz <sup>5)</sup>                               |
| Connection type:                   | Cable with connector M8, 3-pin, 100 mm <sup>6)</sup> |
| Cable material:                    | PVC                                                  |
| Conductor cross-section:           | 0.14 mm <sup>2</sup>                                 |

|                                       |                                                            |
|---------------------------------------|------------------------------------------------------------|
| Cable diameter:                       | 3.4 mm                                                     |
| Circuit protection:::                 | A, C, D <sup>7) 8) 9)</sup>                                |
| Protection class:                     | III                                                        |
| Weight:                               | 60 g                                                       |
| Housing material:                     | ABS, Plastic                                               |
| Optics material:                      | PMMA                                                       |
| Enclosure rating:                     | IP 67<br>IP 66                                             |
| Test input sender off:                | TE to 0 V                                                  |
| Ambient operating temperature:        | -40 °C ... 60 °C                                           |
| Ambient storage temperature:          | -40 °C ... 75 °C                                           |
| Part number of individual components: | Receiver, WE4-3E3130, 2041202, Sender, WS4-3D3130, 2038952 |
| UL File No.:                          | NRKH.E181493 & NRKH7.E181493                               |

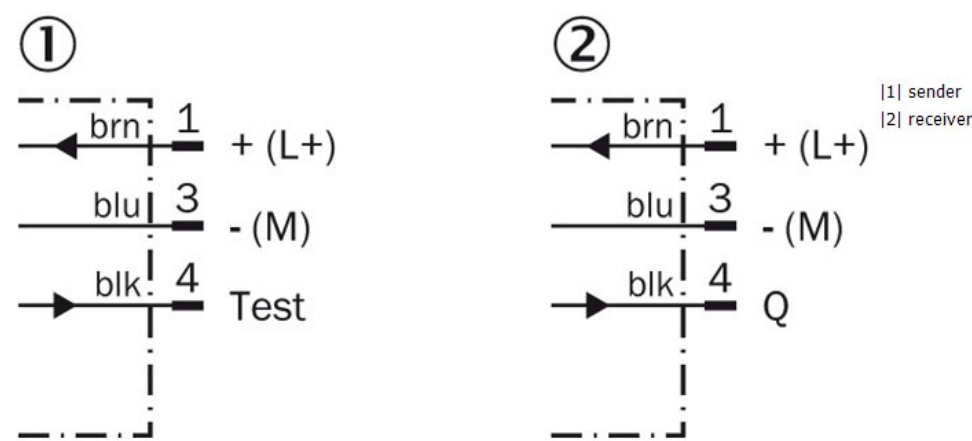
<sup>1)</sup> Limit values   <sup>2)</sup> Sender   <sup>3)</sup> Receiver   <sup>4)</sup> Signal transit time with resistive load   <sup>5)</sup> With light/dark ratio 1:1   <sup>6)</sup> Do not bend below 0 °C   <sup>7)</sup> A = V<sub>S</sub> connections reverse-polarity protected   <sup>8)</sup> C = interference suppression   <sup>9)</sup> D = outputs overcurrent and short-circuit protected

## Dimensional drawing



- [1] Center of optical axis
- [2] LED indicator orange: status of received light beam
- [3] Status indicator LED green: power on
- [4] Threaded mounting hole M3
- [5] Connection

Connection diagram



②

brn

1

+

(L+)

blu

3

-

(M)

blk

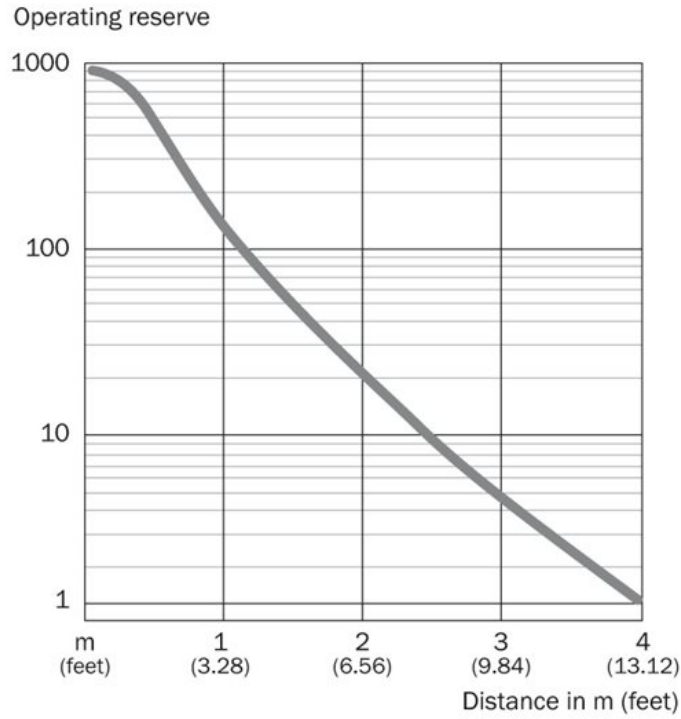
4

Q

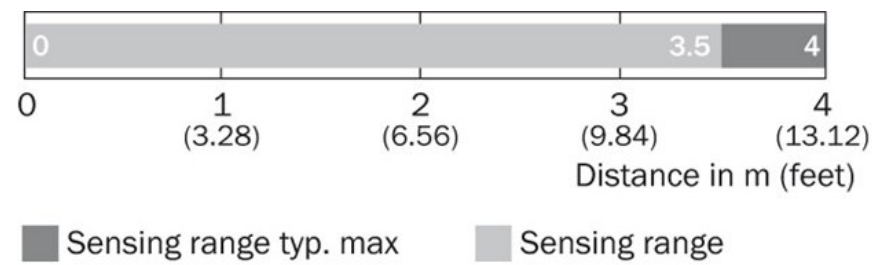
[1] sender

[2] receiver

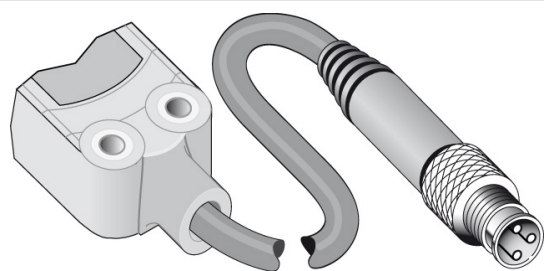
Characteristic curve



**Sensing range diagram**



**Connection type**



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