



## Photoelectric sensors W4S-3, Through-beam photoelectric sensor

WSE4S-3N1330



**Model Name** > WSE4S-3N1330  
**Part No.** > 1042094



*Illustration may differ*

#### At a glance

- Sensing range from 0 - 5 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

**Note: This part is discontinued. Please see the replacement product under "Replacement Products" link. "**



#### Features

|                                  |                                   |
|----------------------------------|-----------------------------------|
| Sensor/detection principle:      | Through-beam photoelectric sensor |
| Dimensions (W x H x D):          | 12.2 mm x 41.8 mm x 17.3 mm       |
| Housing design (light emission): | Rectangular                       |
| Sensing range max.:              | 0 m ... 5 m                       |
| Sensing range:                   | 0 m ... 4.5 m                     |
| Type of light:                   | Visible red light                 |
| Light source:                    | PinPoint LED <sup>1)</sup>        |
| Wave length:                     | 650 nm                            |
| Light spot size (distance):      | Ø 50 mm (2 m)                     |

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

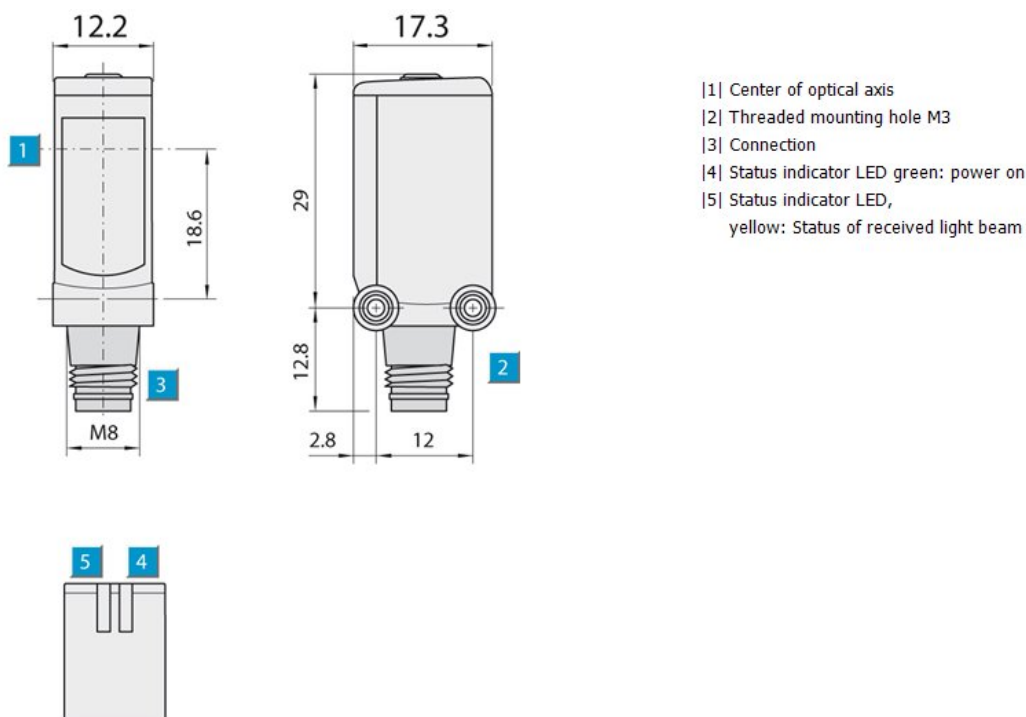
#### Mechanics/electronics

|                                     |                                   |
|-------------------------------------|-----------------------------------|
| Supply voltage:                     | 10 V DC ... 30 V DC <sup>1)</sup> |
| Ripple:                             | < 5 Vpp <sup>2)</sup>             |
| Power consumption:::                | ≤ 20 mA <sup>3) 4) 5)</sup>       |
| Output type:                        | NPN                               |
| Switching mode:                     | Light switching                   |
| Output current I <sub>max</sub> ::: | ≤ 100 mA                          |

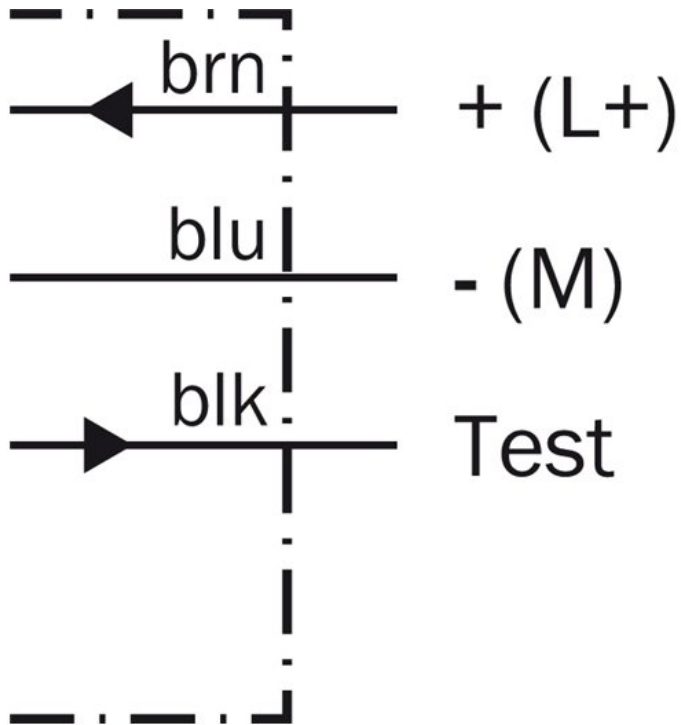
|                                       |                                                              |
|---------------------------------------|--------------------------------------------------------------|
| Response time:                        | < 2.5 ms <sup>6)</sup>                                       |
| Switching frequency:                  | 1,000 Hz <sup>7)</sup>                                       |
| Connection type:                      | Cable, 3-wire, 2 m <sup>8)</sup>                             |
| Cable material:                       | PVC                                                          |
| Conductor cross-section:              | 0.14 mm <sup>2</sup>                                         |
| Cable diameter:                       | 3.4 mm                                                       |
| Circuit protection:::                 | A, C, D <sup>9)</sup> 10) 11)                                |
| Protection class:                     | III                                                          |
| Weight:                               | 40 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, WE4S-3N1330, 2044758, Sender, WS4S-3D1330, 2043613 |
| UL File No.:                          | NRKH.E181493 & NRKH7.E181493                                 |

1) Limit values 2) May not exceed or fall short of  $V_S$  tolerances 3) Sender 4) 5) Receiver 6) Signal transit time with resistive load 7) With light/dark ratio 1:1 8) Do not bend below 0 °C 9) A =  $V_S$  connections reverse-polarity protected 10) C = interference suppression 11) D = outputs overcurrent and short-circuit protected

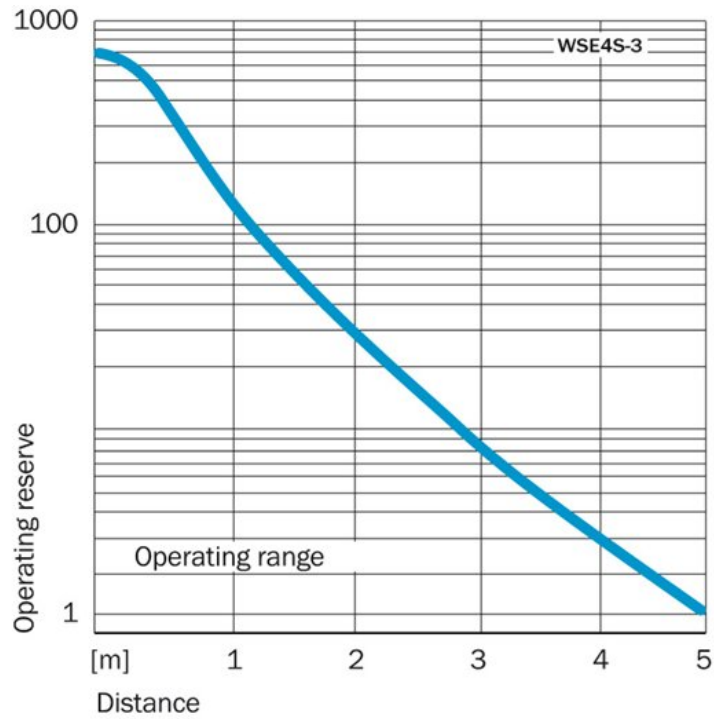
## Dimensional drawing



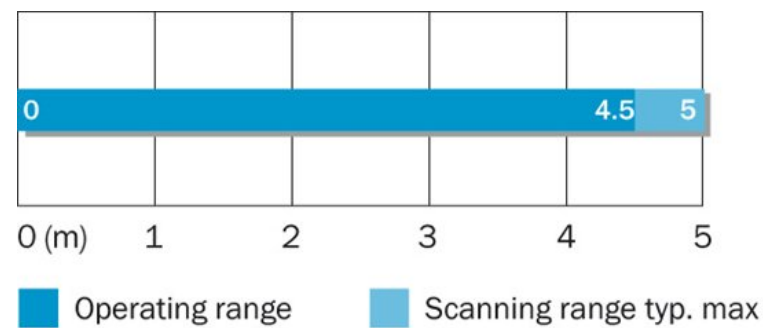
### Connection diagram



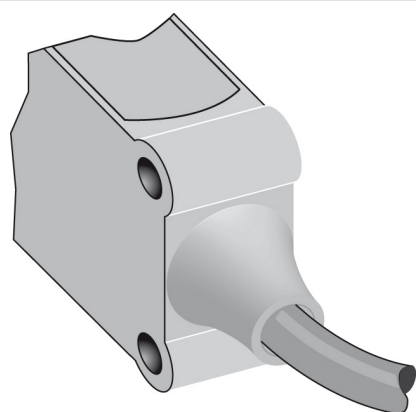
### Characteristic curve



**Sensing range diagram**



**Connection type**



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