



## Photoelectric sensors W4S-3 Inox, Photoelectric retro-reflective sensor, autocollimation

WL4S-3P3432V



**Model Name** > [WL4S-3P3432V](#)  
**Part No.** > [1046426](#)



*Illustration may differ*

#### At a glance

- WashDown rated for fluid tightness (IP 66, IP 67, IP 68 and IP 69K) and Ecolab certified
- Tough stainless steel housing (316L/1.4404)
- Resistant to a variety of common cleaning and disinfection agents
- Modern electrical connection available - M12 connector with pin casting
- Teach-in via stainless steel metal membrane teach button
- PinPoint LED technology provides a highly visible laser-like light spot

#### Your benefits

- Long service life in harsh conditions ensures less downtime and fewer replacement costs
- Easy adjustment via a stainless steel metal membrane teach-in pushbutton
- Quick and easy alignment due to highly visible PinPoint emitter LED
- Complete solution - chemically resistant reflectors available as an accessory



#### Features

|                                  |                                                        |
|----------------------------------|--------------------------------------------------------|
| Sensor/detection principle:      | Photoelectric retro-reflective sensor, autocollimation |
| Dimensions (W x H x D):          | 15.25 mm x 49.2 mm x 22.2 mm                           |
| Housing design:                  | Washdown                                               |
| Housing design (light emission): | Rectangular                                            |
| Sensing range max.:              | 0 m ... 5 m <sup>1)</sup>                              |
| Sensing range:                   | 0 m ... 3 m <sup>2)</sup>                              |
| Type of light:                   | Visible red light                                      |
| Light source:                    | PinPoint LED <sup>3)</sup>                             |
| Wave length:                     | 650 nm                                                 |
| Teach-in:                        | Single teach-in button                                 |
| Adjustment:                      | Teach-in                                               |
| Light spot size (distance):      | Ø 45 mm (1.5 m)                                        |

<sup>1) 2)</sup> PL80A <sup>3)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C

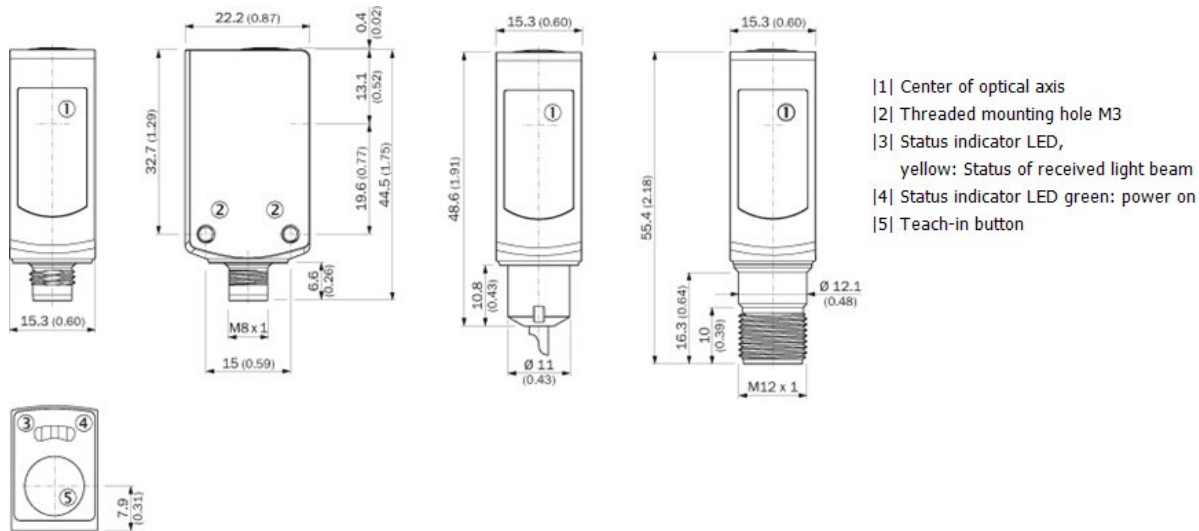
#### Mechanics/electronics

|                    |                                   |
|--------------------|-----------------------------------|
| Supply voltage:    | 10 V DC ... 30 V DC <sup>1)</sup> |
| Power consumption: | ≤ 30 mA <sup>2)</sup>             |
| Output type:       | PNP                               |
| Output function:   | Complementary                     |

|                                   |                                                       |
|-----------------------------------|-------------------------------------------------------|
| Switching mode:                   | Light/dark-switching                                  |
| Output current I <sub>max</sub> : | ≤ 100 mA                                              |
| Response time:                    | < 0.5 ms <sup>3)</sup>                                |
| Switching frequency:              | 1,000 Hz <sup>4)</sup>                                |
| Connection type:                  | Cable with connector M12, 4-pin, 150 mm <sup>5)</sup> |
| Cable material:                   | PVC                                                   |
| Circuit protection:::             | A<br>B 6) 7) 8)<br>C                                  |
| Protection class:                 | III                                                   |
| Weight:                           | 60 g                                                  |
| Polarisation filter:              | ✓                                                     |
| Housing material:                 | Stainless steel, Stainless steel 316L                 |
| Enclosure rating:                 | IP 66<br>IP 67<br>IP 68<br>IP 69K                     |
| Ambient operating temperature:    | -30 °C ... 60 °C, -30 °C ... 70 °C <sup>9)</sup>      |
| Ambient storage temperature:      | -30 °C ... 75 °C                                      |
| UL File No.:                      | NRKH.E181493 & NRKH7.E181493                          |

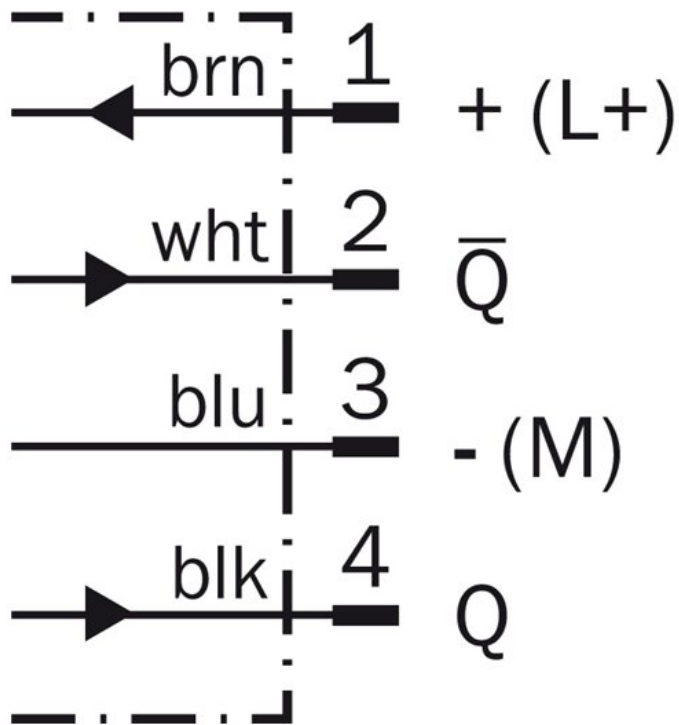
1) Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8 A<sup>2)</sup> Without load<sup>3)</sup> Signal transit time with resistive load<sup>4)</sup> With light/dark ratio 1:1<sup>5)</sup> Do not bend below 0 °C<sup>6)</sup> A = V<sub>S</sub> connections reverse-polarity protected<sup>7)</sup> B = inputs and output reverse-polarity protected<sup>8)</sup> C = interference suppression<sup>9)</sup> At UV ≤ 24 V and IA < 30 mA

## Dimensional drawing

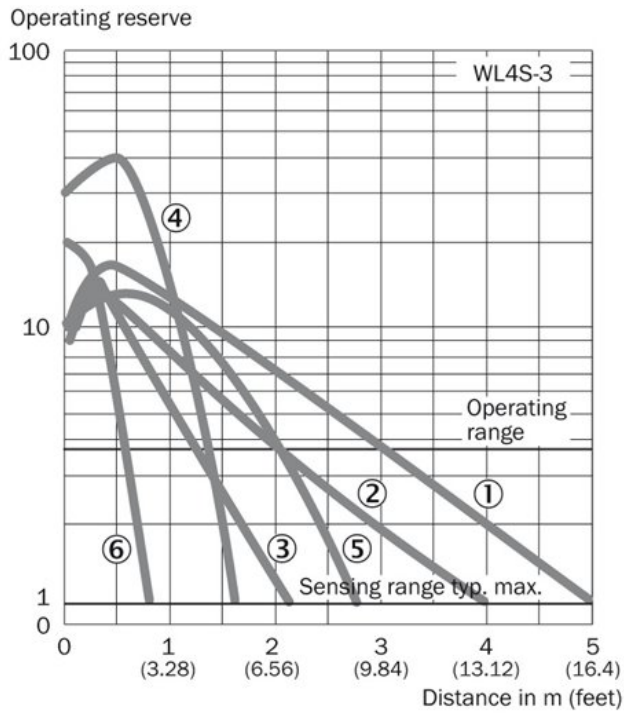


All dimensions in mm (inch)

## Connection diagram

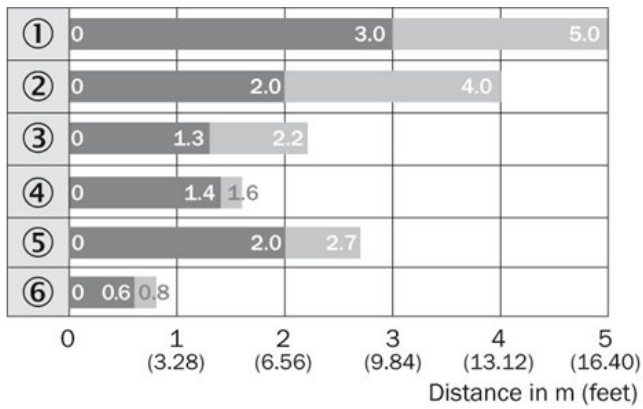


## Characteristic curve



- [1] PL80A
- [2] PL40A
- [3] PL20A
- [4] PL10F
- [5] P250 CHEM
- [6] REF-IRF-56

Sensing range diagram

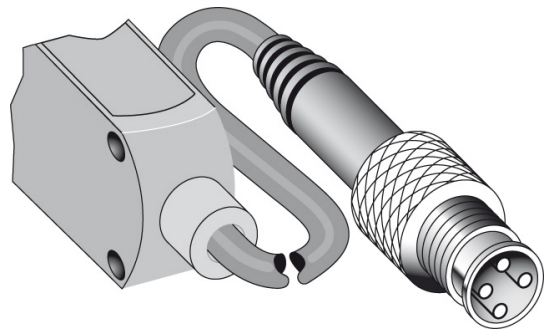


- |1| PL80A
- |2| PL40A
- |3| PL20A
- |4| PL10F
- |5| P250 CHEM
- |6| REF-IRF-56

Operating range      Sensing range typ. max.

- ① Reflector type PL80A
- ② Reflector type PL40A
- ③ Reflector type PL20A
- ④ Reflector type PL10F
- ⑤ Reflector type P250 CHEM
- ⑥ Reflective tape REF-IRF-56

Connection type



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