



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

WL4S-3N2432V



Type > [WLG4S-3N2432V](#)  
Part No. > [1054728](#)



*Illustration may differ*

**At a glance**

- IP 66, IP 67, IP 68 and IP 69K enclosure rating 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
- PinPoint LED technology provides a highly visible laser-like light spot
- Teach-in via stainless steel pushbutton with a metal membrane
- Continuous threshold adjustment technology reliably detects objects in changing conditions

**Your benefits**

- Long service life in harsh conditions ensures less downtime and fewer replacement costs
- Reliable detection of all materials, including transparent objects in the pharmaceutical, packaging, and food and beverage industries
- Easy adjustment via a stainless steel metal membrane teach-in pushbutton
- Quick and easy alignment due to highly visible PinPoint emitter LED
- Remote monitoring and quick diagnostics via IO-Link (optional)



**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
Adjustment:	Single teach-in button
Light spot size (distance):	Ø 45 mm (1.5 m)
Continuous threshold adaption:	✓

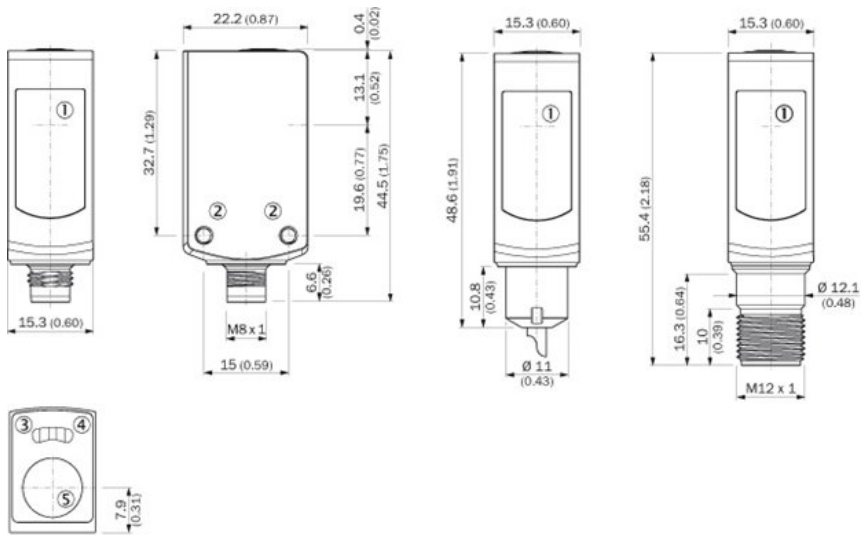
<sup>1) 2)</sup> PL80A <sup>3)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C

## Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC <sup>1)</sup>
Ripple:	< 5 Vpp <sup>2)</sup>
Power consumption:	≤ 30 mA <sup>3)</sup>
Output type:	NPN
Output function:	Complementary
Switching mode:	Light/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::	M12, 4-pin male connector <sup>6) 7)</sup>
Cable material:	PVC
Circuit protection:::	A B <sup>8) 9) 10)</sup> C
Protection class:	III
Weight:	45 g
Polarisation filter:	✓
Special device:	-
Enclosure rating:	IP 66 IP 67 IP 68 IP 69K
Special feature:	Detecting transparent objects
Ambient operating temperature:	-30 °C ... +60 °C, -30 °C ... +70 °C <sup>11)</sup>
Ambient storage temperature:	-30 °C ... +75 °C
UL File No.:	NRKH.E181493 & NRKH7.E181493
Housing material:	Stainless steel, Stainless steel 316L

<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> Tightening torque, max.: 0.7 Nm <sup>7)</sup> Do not bend below 0 °C <sup>8)</sup> A =  $V_S$  connections reverse-polarity  
protected <sup>9)</sup> B = inputs and output reverse-polarity protected <sup>10)</sup> C = interference suppression <sup>11)</sup> At UV ≤ 24 V and IA < 30 mA

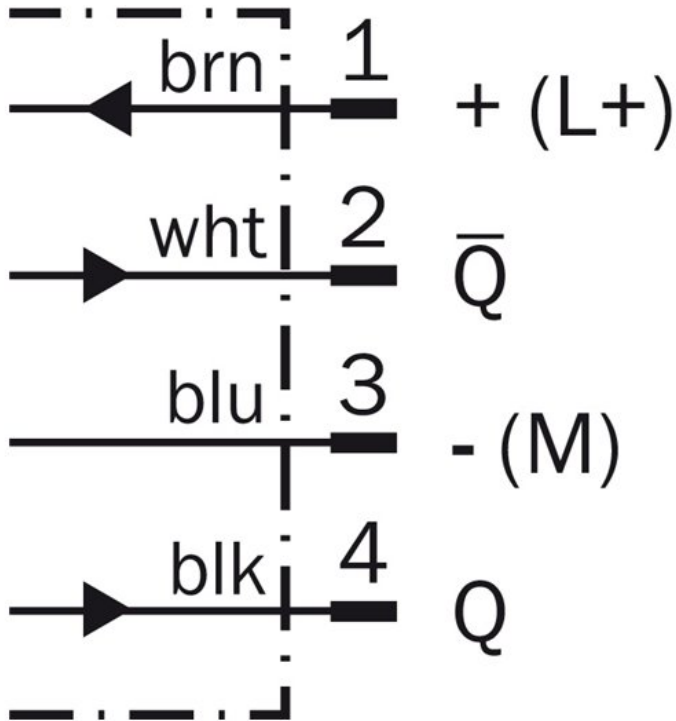
## Dimensional drawing



- [1] Center of optical axis
- [2] Threaded mounting hole M3
- [3] Status indicator LED, yellow: Status of received light beam
- [4] Status indicator LED green: supply voltage on
- [5] Teach-in button

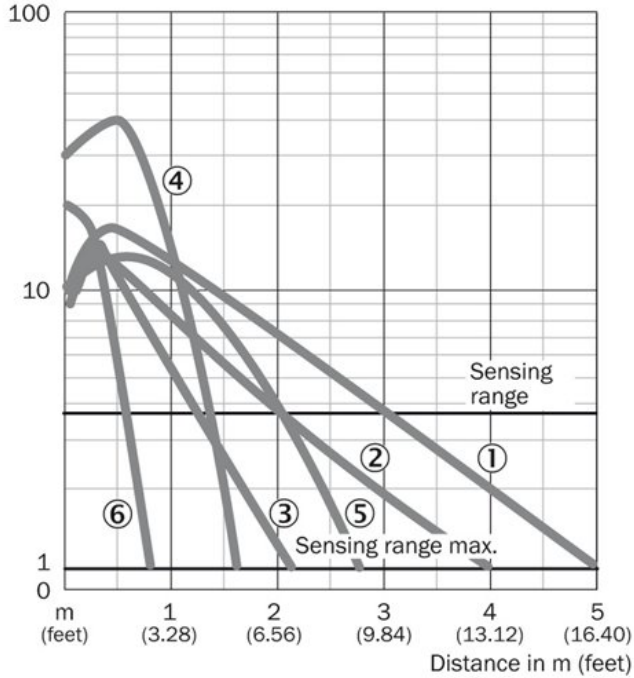
All dimensions in mm (inch)

## Connection diagram



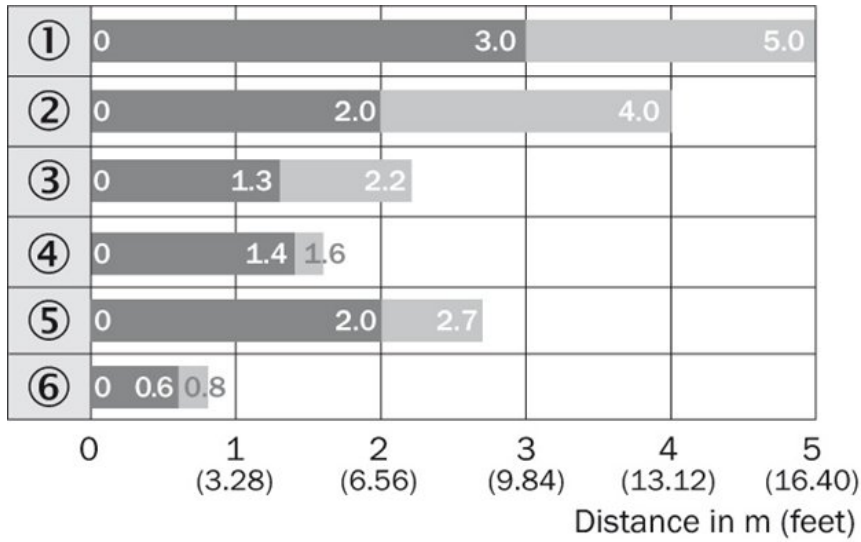
## Characteristic curve

Operating reserve



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

## Sensing range diagram

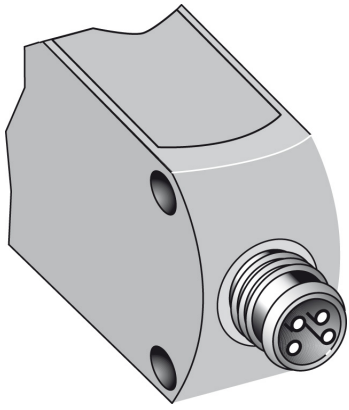


- |1| PL80A
- |2| PL40A
- |3| PL20A
- |4| PL10F
- |5| P250 CHEM
- |6| REF-IRF-56

■ Sensing range      ■ Sensing range max.

**Connection type**

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