



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

WL4S-3N1130V



**Model Name** > [WL4S-3N1130V](#)  
**Part No.** > [1046418](#)



*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 48.6 mm x 22.2 mm
Housing design:	Washdown
Housing design (light emission):	Rectangular
Sensing range max.:	0 m ... 4 m <sup>1)</sup>
Sensing range:	0 m ... 2.5 m <sup>2)</sup>
Type of light:	Visible red light
Light source:	PinPoint LED <sup>3)</sup>
Wave length:	650 nm
Light spot size (distance):	Ø 45 mm (1.5 m)

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

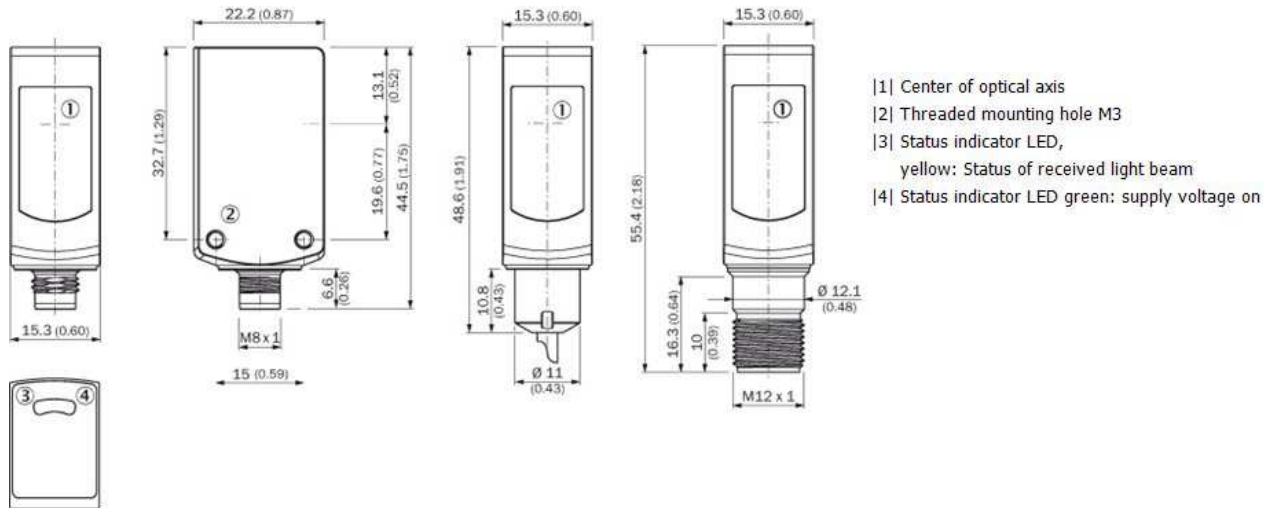
**Mechanics/electronics**

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
Switching mode:	Light/dark switching
Output current I <sub>max.</sub> :	≤ 100 mA

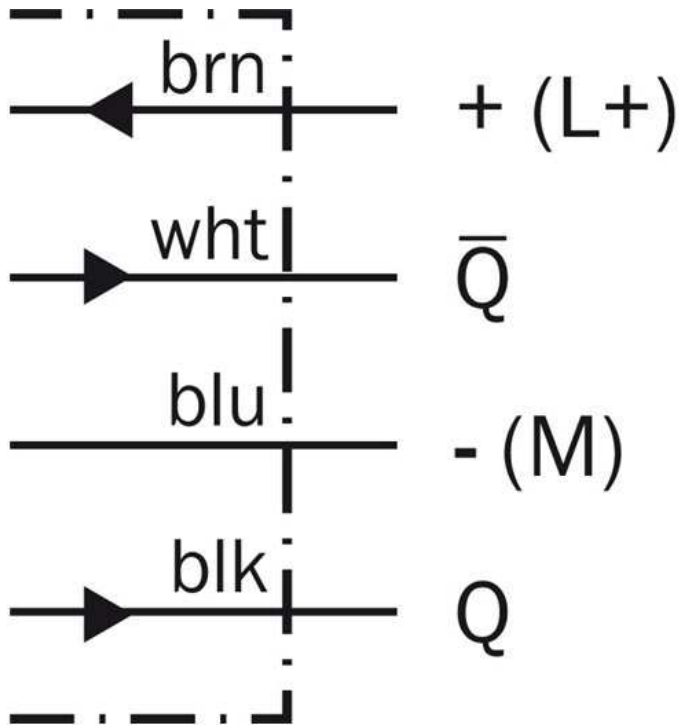
Response time:	< 0.5 ms <sup>4)</sup>
Switching frequency:	1,000 Hz <sup>5)</sup>
Connection type:	Cable, 4-wire, 2 m <sup>6)</sup>
Cable material:	PVC
Conductor cross-section:	0.14 mm <sup>2</sup>
Circuit protection:::	A B 7) 8) 9) C
Protection class:	III
Weight:	80 g
Polarisation filter:	✓
Special device:	-
Enclosure rating:	IP 66 IP 67 IP 68 IP 69K
Ambient operating temperature:	-30 °C ... +60 °C, -30 °C ... +70 °C <sup>10)</sup>
Ambient storage temperature:	-30 °C ... +75 °C
UL File No.:	NRKH.E181493 & NRKH7.E181493
Housing material:	Stainless steel, Stainless steel 316L

1) Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8 A <sup>2)</sup> May not exceed or fall below U<sub>v</sub> 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<sub>S</sub> connections reverse-polarity protected <sup>8)</sup> B = inputs and output  
reverse-polarity protected <sup>9)</sup> C = interference suppression <sup>10)</sup> At UV ≤ 24 V and IA < 30 mA

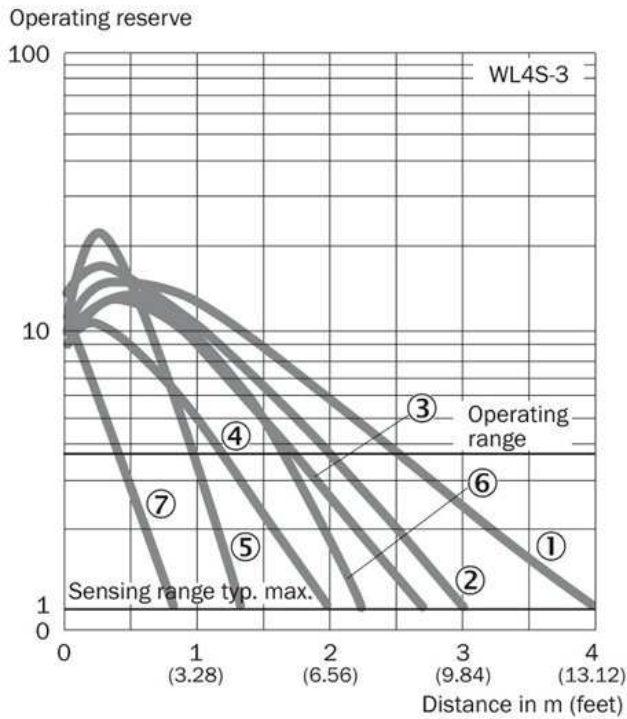
## Dimensional drawing



Connection diagram

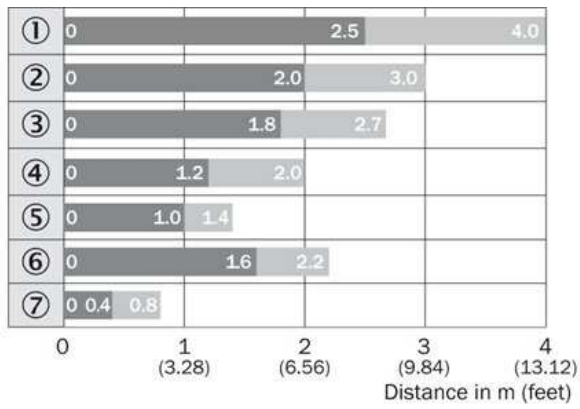


Characteristic curve



- |1| PL80A
- |2| P250F
- |3| PL40A
- |4| PL20A
- |5| PL10F
- |6| P250 CHEM
- |7| REF-IRF-56

## Sensing range diagram

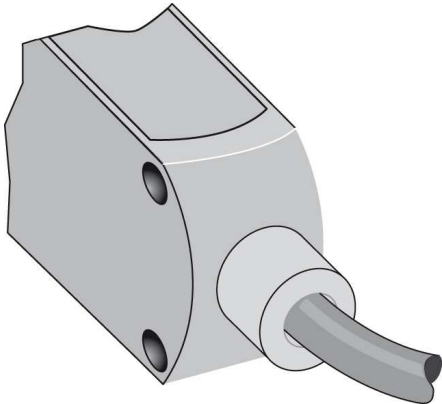


- |1| PL80A
- |2| P250F
- |3| PL40A
- |4| PL20A
- |5| PL10F
- |6| P250 CHEM
- |7| REF-IRF-56

■ Operating range      ■ Sensing range typ. max.

- ① Reflector type PL80A
- ② Reflector type PL250F
- ③ Reflector type PL40A
- ④ Reflector type PL20A
- ⑤ Reflector type PL10F
- ⑥ Reflector type P250 CHEM
- ⑦ Reflexion tape REF-IRF-56

## Connection type



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