



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

WL4S-3F2130V



Model Name > [WL4S-3F2130V](#)
Part No. > [1045096](#)



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

^{1) 2)} PL80A ³⁾ Average service life: 100,000 h at T_U = +25 °C

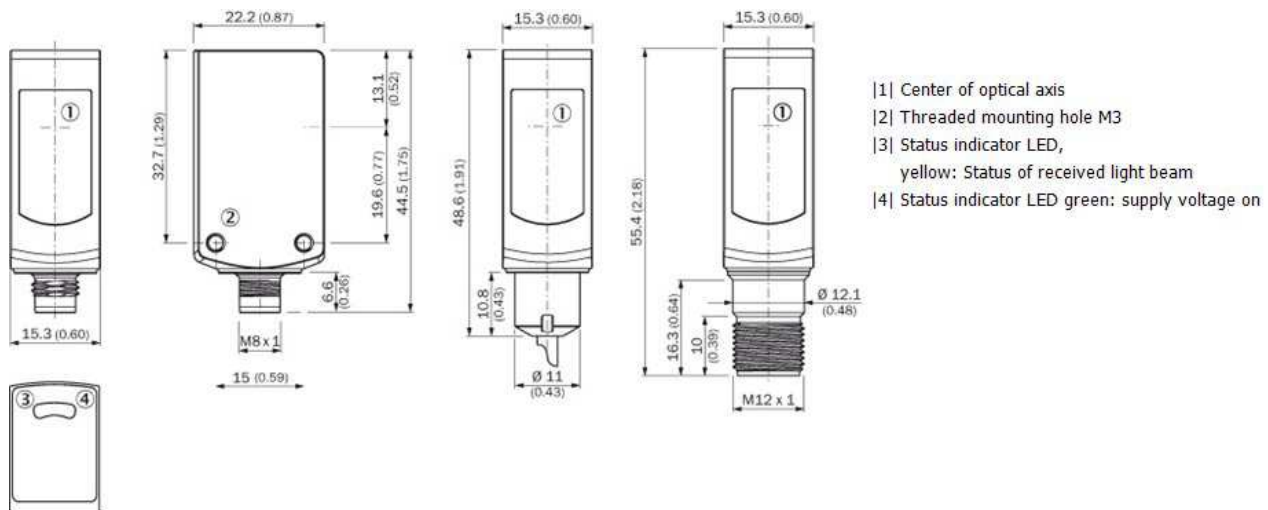
Mechanics/electronics

| | |
|------------------------------------|-----------------------------------|
| Supply voltage: | 10 V DC ... 30 V DC ¹⁾ |
| Ripple: | < 5 Vpp ²⁾ |
| Power consumption: | ≤ 30 mA ³⁾ |
| Output type: | PNP |
| Switching mode: | Dark switching |
| Output current I _{max.} : | ≤ 100 mA |

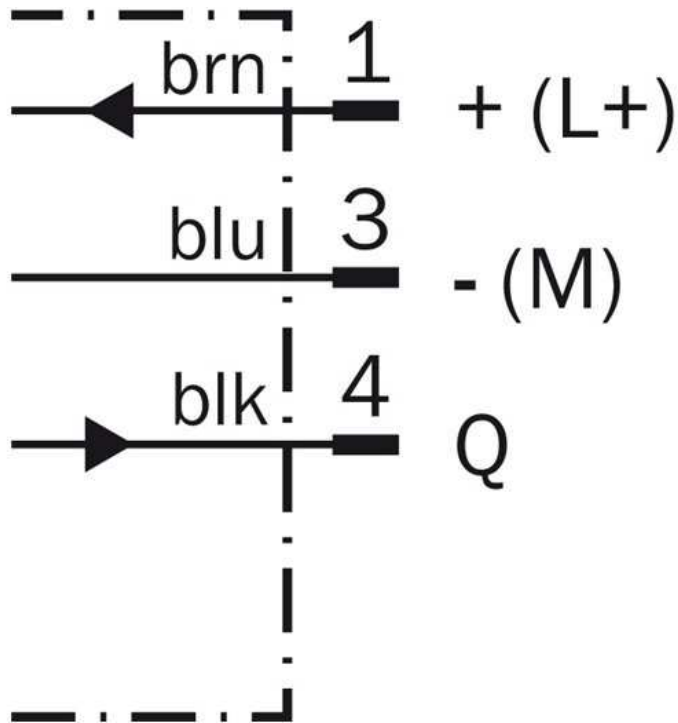
| | |
|--------------------------------|---|
| Response time: | < 0.5 ms ⁴⁾ |
| Switching frequency: | 1,000 Hz ⁵⁾ |
| Connection type: | Connector M8, 3-pin ⁶⁾ |
| Circuit protection::: | A B ^{7) 8) 9)} C |
| Protection class: | III |
| Weight: | 40 g |
| Polarisation filter: | ✓ |
| Special device: | - |
| Enclosure rating: | IP 66 IP 67 IP 68 IP 69K ¹⁰⁾ |
| Ambient operating temperature: | -30 °C ... +60 °C, -30 °C ... +70 °C ¹¹⁾ |
| 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 ²⁾ May not exceed or fall below U_v tolerances ³⁾ Without load ⁴⁾
Signal transit time with resistive load ⁵⁾ With light/dark ratio 1:1 ⁶⁾ Tightening torque, max.: 0.6 Nm ⁷⁾ A = V_S connections reverse-polarity protected ⁸⁾ B = inputs and
output reverse-polarity protected ⁹⁾ C = interference suppression ¹⁰⁾ Only in case of correctly mounted IP 69K connecting cable ¹¹⁾ At UV ≤ 24 V and IA < 30 mA

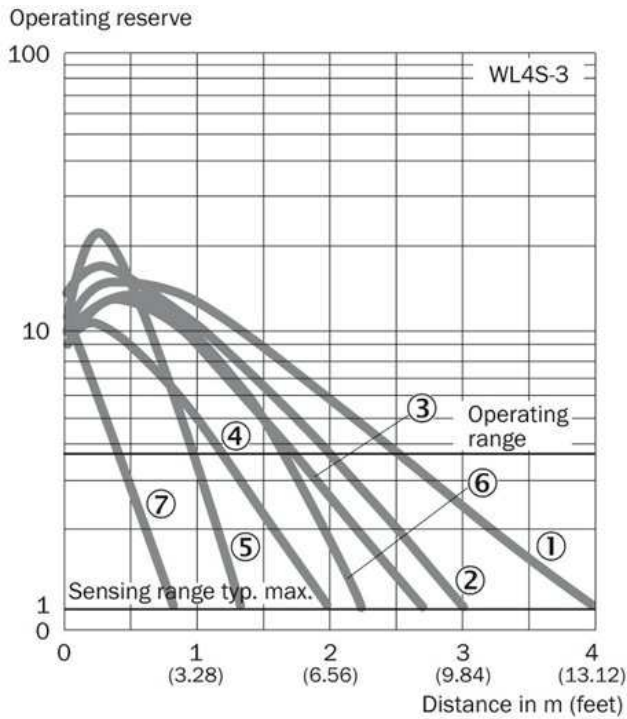
Dimensional drawing



Connection diagram

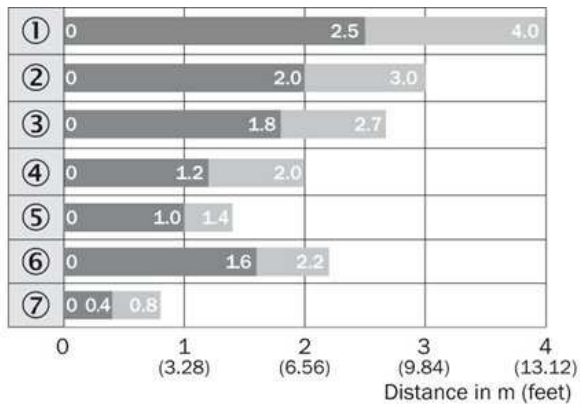


Characteristic curve



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

Sensing range diagram

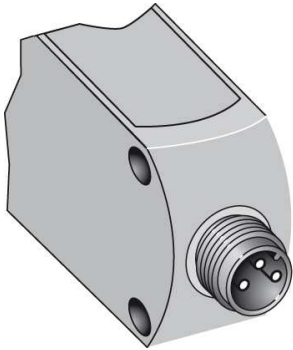


■ Operating range ■ Sensing range typ. max.

- 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

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

Connection type



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