



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

WL4S-3N1130H



Model Name > **WL4S-3N1130H**
Part No. > **1048116**



Illustration may differ

At a glance

- Hygienic designed stainless steel housing and accessories (316L/1.4404)
- Hygienic mounting using M12-adapter thread or D12-adapter shaft
- IP 66, IP 67, IP 68 and IP 69K enclosure rating and Ecolab certified
- Resistant to a variety of common cleaning and disinfection agents
- Stainless steel teach-in pushbutton with a metal membrane
- PinPoint LED technology provides a highly visible laser-like light spot
- Hygienical designed and chemically resistant reflectors available as accessories

Your benefits

- Smooth hygienic housing and accessories with no grooves or crevices eliminates the potential for bacteria to grow, providing a more hygienic solution.
- Long service life in harsh conditions ensures less downtime and fewer replacement costs
- Quick and easy adjustment via a stainless steel metal membrane teach-in pushbutton
- Quick and easy alignment due to highly visible PinPoint emitter LED



Features

| | |
|----------------------------------|--|
| Sensor/detection principle: | Photoelectric retro-reflective sensor, autocollimation |
| Dimensions (W x H x D): | 15.25 mm x 48.6 mm x 22.15 mm |
| Housing design: | Hygiene |
| 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 of 100,000 h at T_A = +25 °C

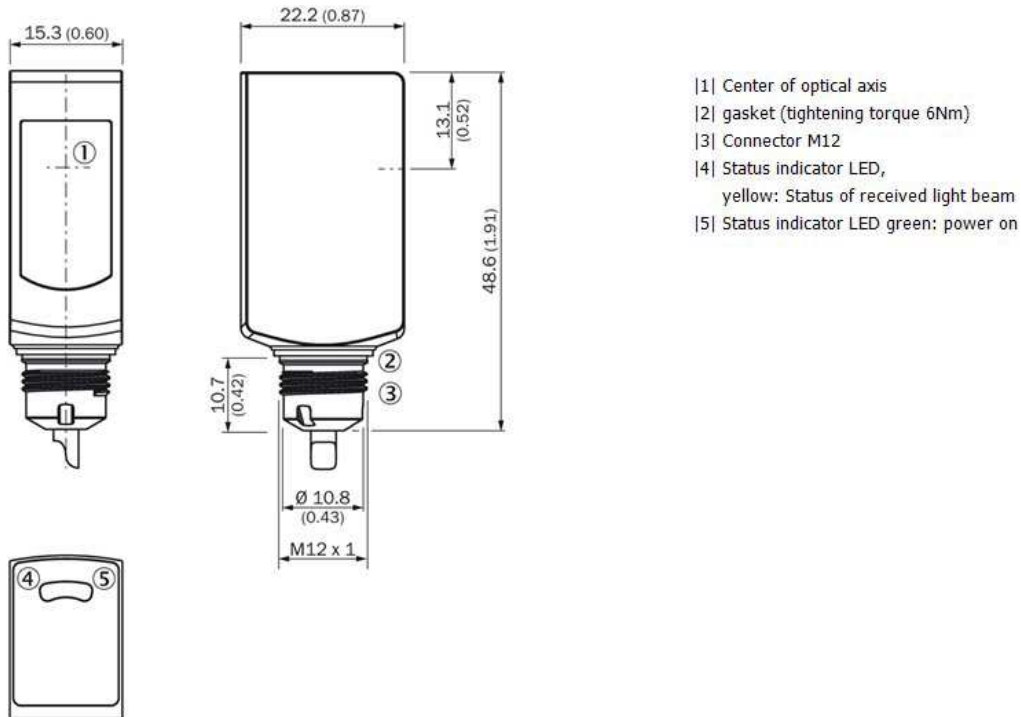
Mechanics/electronics

| | |
|--------------------|-----------------------------------|
| Supply voltage: | 10 V DC ... 30 V DC ¹⁾ |
| Power consumption: | ≤ 30 mA ²⁾ |
| Output type: | NPN |

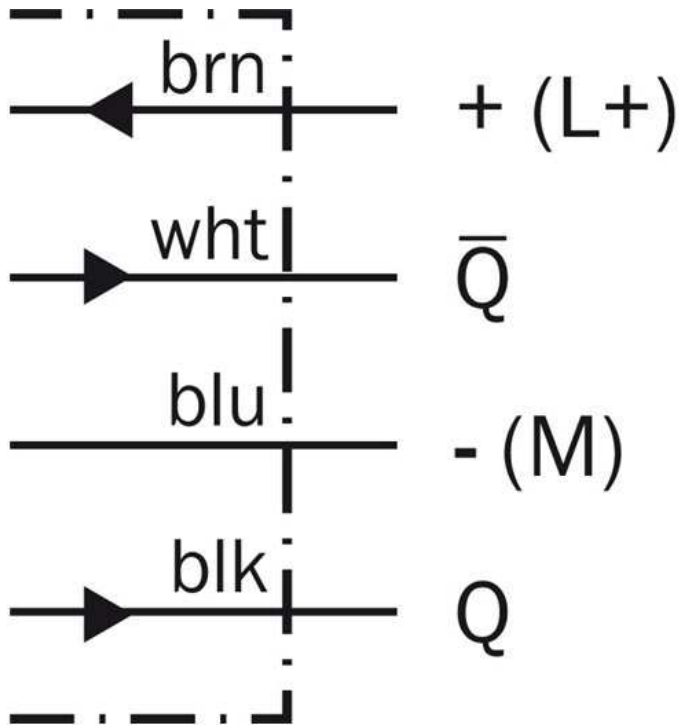
| | |
|------------------------------------|--|
| Switching mode: | Light/dark switching |
| Output current I _{max} ·: | ≤ 100 mA |
| Response time: | < 0.5 ms ³⁾ |
| Switching frequency: | 1,000 Hz ⁴⁾ |
| Connection type: | Cable, 4-wire, 2 m ⁵⁾ |
| Cable material: | PVC |
| Conductor cross-section: | 0.14 mm ² |
| Circuit protection::: | A B C 6) 7) 8) |
| Protection class: | III |
| Weight: | 80 g |
| Polarisation filter: | ✓ |
| Housing material: | Stainless steel, Stainless steel 316L |
| Enclosure rating: | IP 66 IP 67 IP 68 IP 69K |
| Ambient operating temperature: | -30 °C ... 60 °C, -30 °C ... 70 °C ⁹⁾ |
| Ambient storage temperature: | -30 °C ... 75 °C |
| UL File No.: | FDA, UL No. NRKH.E181493 & cUL No. NRKH7.E181493 |

1) Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8 A²⁾ Without load³⁾ Signal transit time with resistive load⁴⁾ With light/dark ratio 1:1⁵⁾ Do not bend below 0 °C⁶⁾ A = V_S connections reverse-polarity protected⁷⁾ B = inputs and output reverse-polarity protected⁸⁾ C = interference suppression⁹⁾ At UV ≤ 24 V and IA < 30 mA

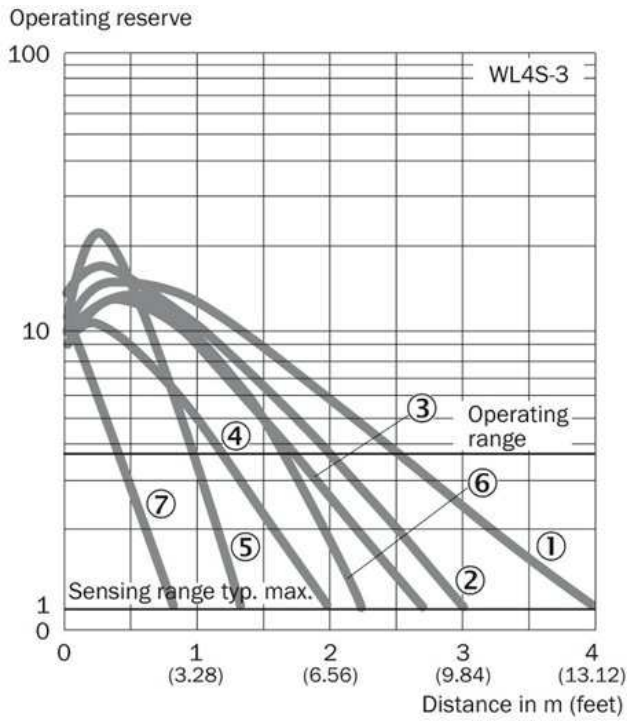
Dimensional drawing



Connection diagram

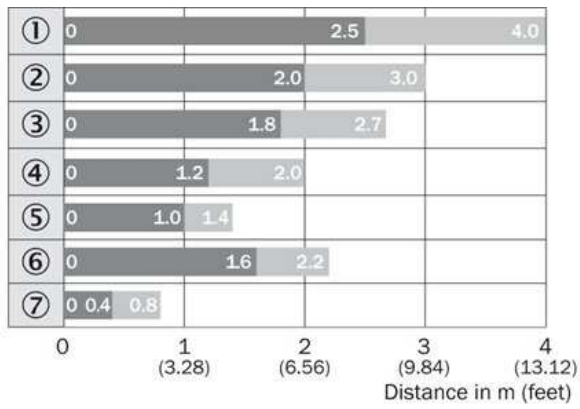


Characteristic curve



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

Sensing range diagram

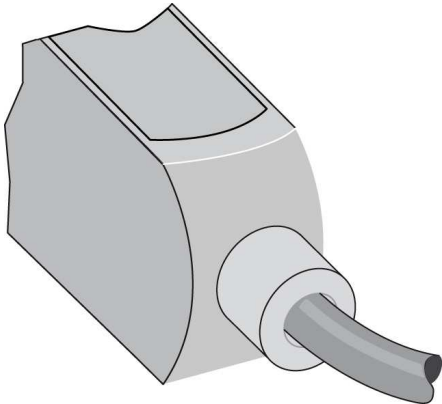


■ Operating range ■ Sensing range typ. max.

- 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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