



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

WL4S-3N1130H



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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
- Hygienic 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

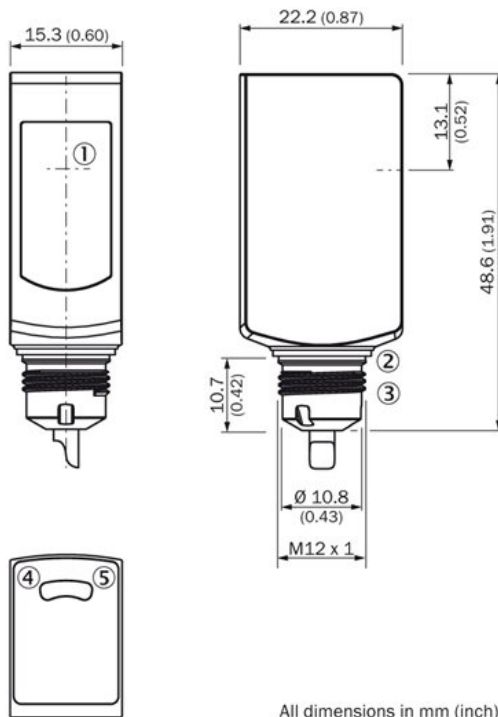
Mechanics/electronics

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 6) 7) 8) C
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

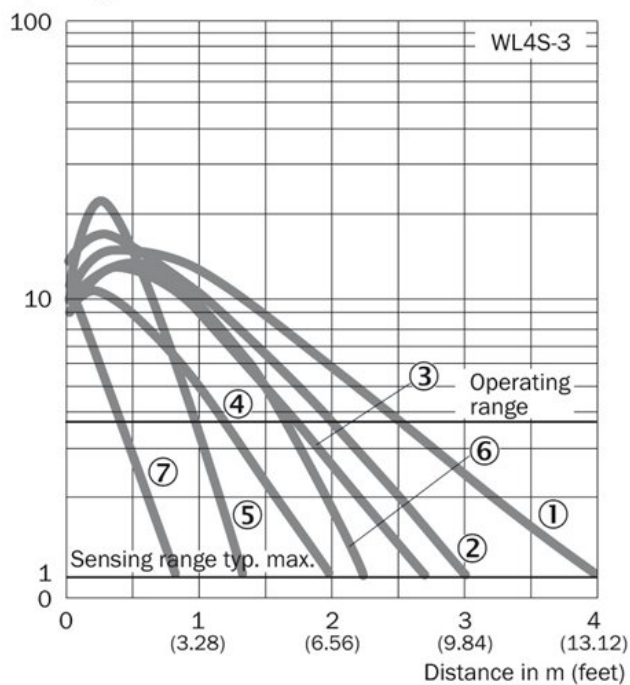


- [1] Center of optical axis
- [2] gasket (tightening torque 6Nm)
- [3] Connector M12
- [4] Status indicator LED,
yellow: Status of received light beam
- [5] Status indicator LED green: power on

Diagram illustrating a four-level system with energy levels labeled **brn**, **wht**, **blu**, and **blk**. The levels are connected by transitions:

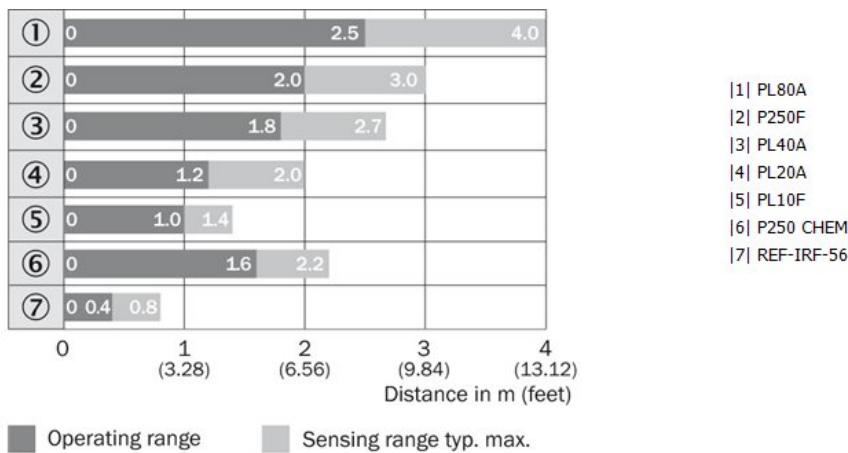
- brn** to **wht**: $+(L+)$
- wht** to **blu**: $\bar{Q}$
- blk** to **blu**: Q

Operating reserve



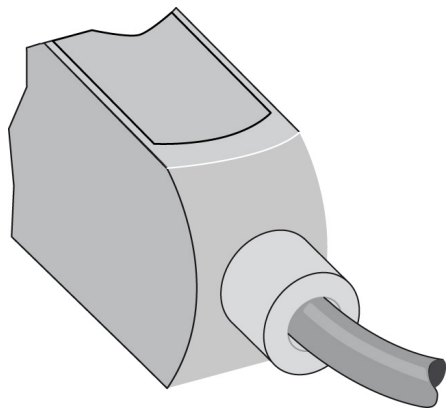
- |1| PL80A
|2| P250F
|3| PL40A
|4| PL20A
|5| PL10F
|6| P250 CHEM
|7| REF-IRF-56

Sensing range diagram



- 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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