

ONLINE DATA SHEET
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Photoelectric sensors
W4S-3 Inox, Photoelectric retro-reflective sensor, autocollimation

WL4S-3P2230V



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Model Name > WL4S-3P2230V
Part No. > 1045095



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

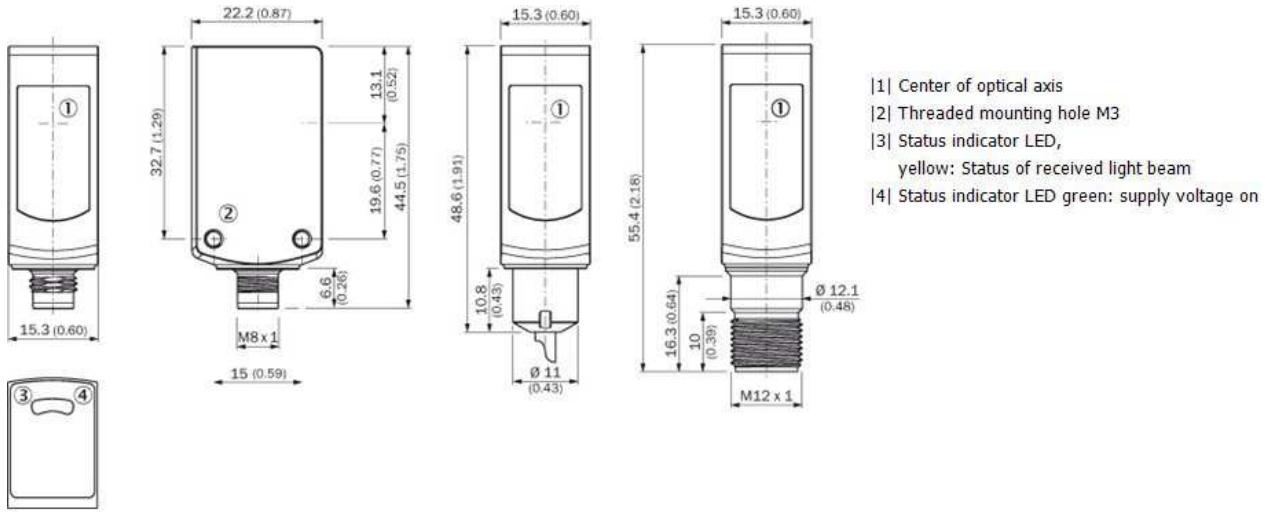
Supply voltage:	10 V DC ... 30 V DC [1]
Ripple:	< 5 Vpp [2]
Power consumption:	≤ 30 mA [3]
Output type:	PNP
Output function:	Complementary
Switching mode:	Light/dark switching

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Output current Imax.:	≤ 100 mA
Response time:	< 0.5 ms [4]
Switching frequency:	1,000 Hz [5]
Connection type:	Connector M8, 4-pin [6]
Circuit protection:::	A B C [7] [8] [9]
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

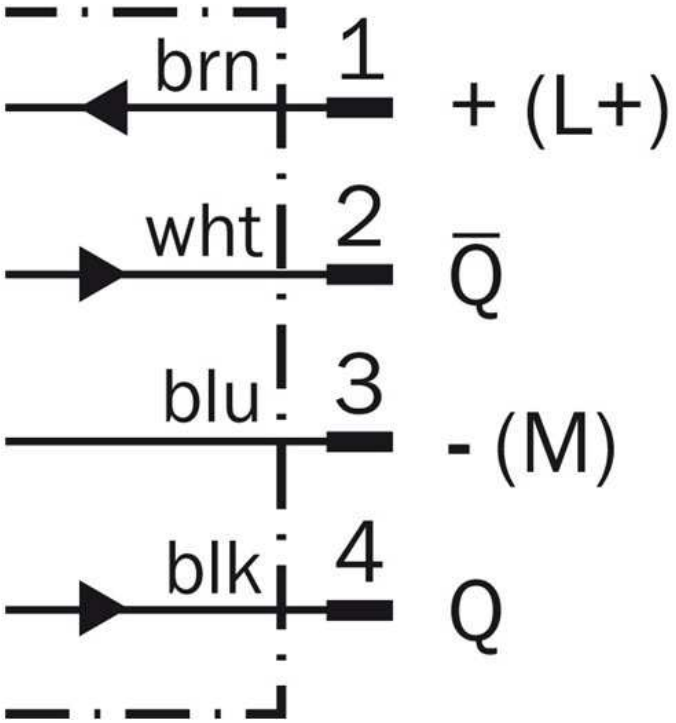
[1] Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8 A [2] May not exceed or fall below U_V tolerances [3] Without load [4] Signal transit time with resistive load [5] With light/dark ratio 1:1 [6] Tightening torque, max.: 0.6 Nm [7] A = V_S connections reverse-polarity 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

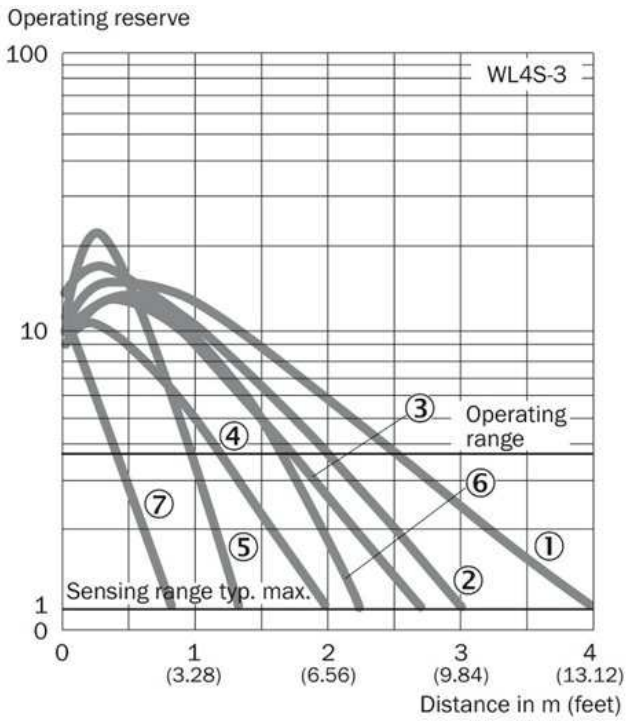


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Connection diagram



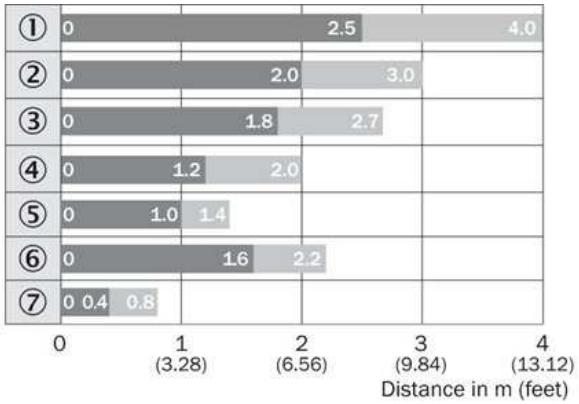
Characteristic curve



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

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Sensing range diagram



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

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

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