



Photoelectric sensors
W4-3, Photoelectric retro-reflective sensor,
Standard optics

WL4-3F3130



Model Name > [WL4-3F3130](#)
Part No. > [1028153](#)



Illustration may differ

At a glance

- Fixed setting or setting via teach-in pushbutton
- PinPoint LED technology for highly visible, intense light spot
- Sensing range from 0.01 - 4 m
- Rugged plastic housing with M3 threaded metal inserts

Your benefits

- The PinPoint LED's sharply defined, intense light spot simplifies alignment
- Low-cost machine integration due to small dimensions that enable mounting in areas with tight space restrictions
- Rugged mounting system with M3 threaded metal inserts reduces maintenance costs due to a long service life



Features

Sensor/detection principle:	Photoelectric retro-reflective sensor, Standard optics
Dimensions (W x H x D):	16 mm x 39.5 mm x 12 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0.01 m ... 4.5 m ¹⁾
Sensing range:	0.02 m ... 3.5 m ²⁾
Type of light:	Visible red light
Light source:	PinPoint LED ³⁾
Wave length:	650 nm
Light spot size (distance):	Ø 75 mm (1.5 m)

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

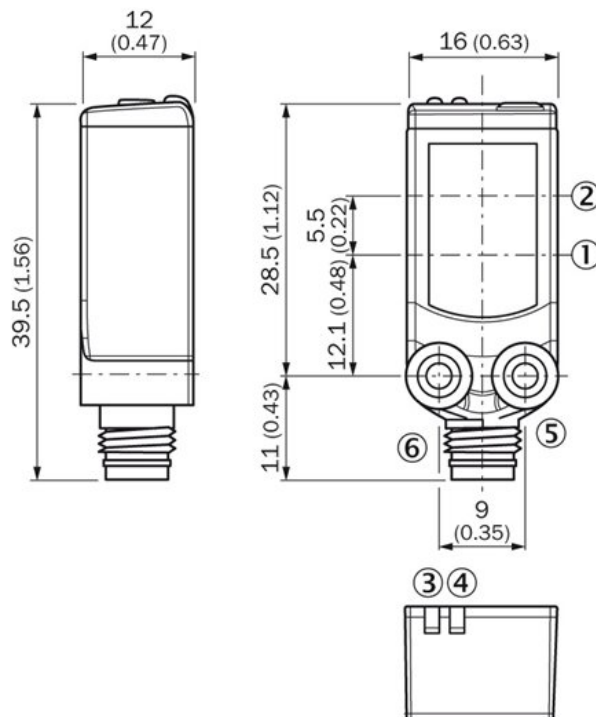
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	< 5 Vpp ²⁾
Power consumption:	≤ 20 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:	Cable with connector M8, 3-pin, 100 mm ⁶⁾
Cable material:	PVC

Conductor cross-section:	0.14 mm ²
Cable diameter:	3.4 mm
Circuit protection:::	A, C, D ⁷⁾ 8) 9)
Protection class:	III
Weight:	30 g
Polarisation filter:	✓
Housing material:	ABS, Plastic
Optics material:	PMMA
Enclosure rating:	IP 67 IP 66
Ambient operating temperature:	-40 °C ... 60 °C
Ambient storage temperature:	-40 °C ... 75 °C
UL File No.:	NRKH.E181493 & NRKH7.E181493

¹⁾ Limit values ²⁾ May not exceed or fall short of V_S tolerances ³⁾ Without load ⁴⁾ Signal transit time with resistive load ⁵⁾ With light/dark ratio 1:1 ⁶⁾ Do not bend
 below 0 °C ⁷⁾ A = V_S connections reverse-polarity protected ⁸⁾ C = interference suppression ⁹⁾ D = outputs overcurrent and short-circuit protected

Dimensional drawing

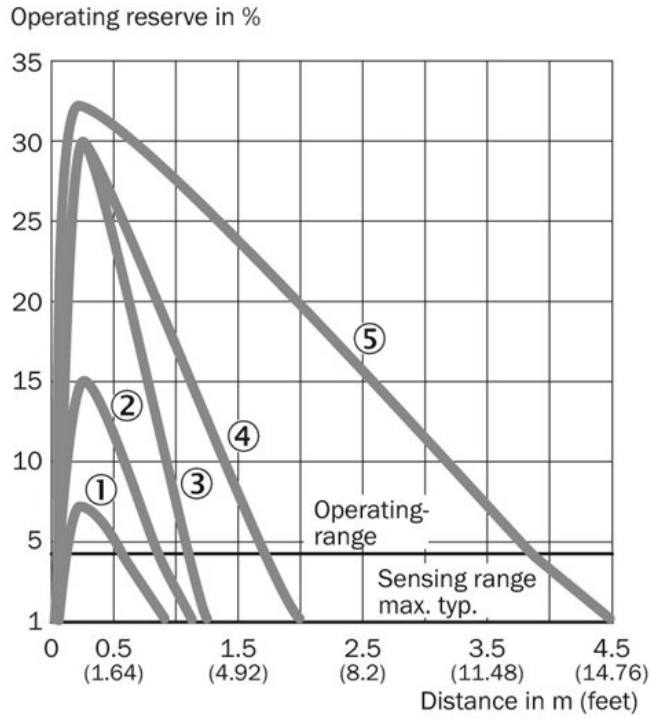


- [1] Center of optical axis, sender
- [2] Center of optical axis, receiver
- [3] LED indicator orange: status of received light beam
- [4] Status indicator LED green: power on
- [5] Threaded mounting hole M3
- [6] Connection

Connection diagram

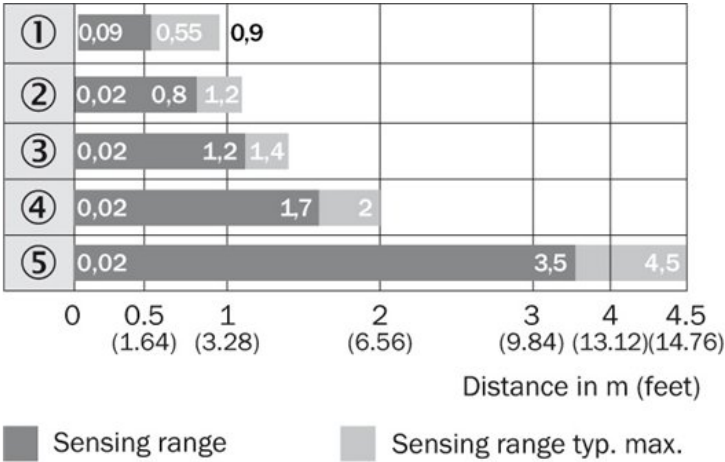


Characteristic curve



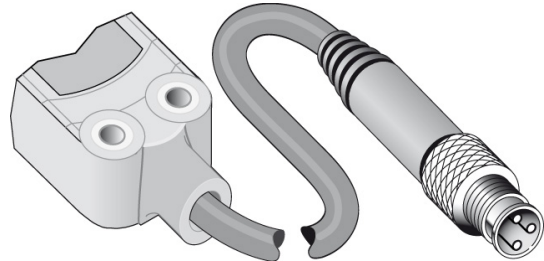
- |1| REF-IRF-56
- |2| PL10F
- |3| PL20A
- |4| PL40A
- |5| PL80A

Sensing range diagram



- ① REF-IRF-56
- ② PL10F
- ③ PL20A
- ④ PL40A
- ⑤ PL80A

Connection type



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