



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

WL4-3P2130



Model Name > [WL4-3P2130](#)
Part No. > [1028146](#)



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

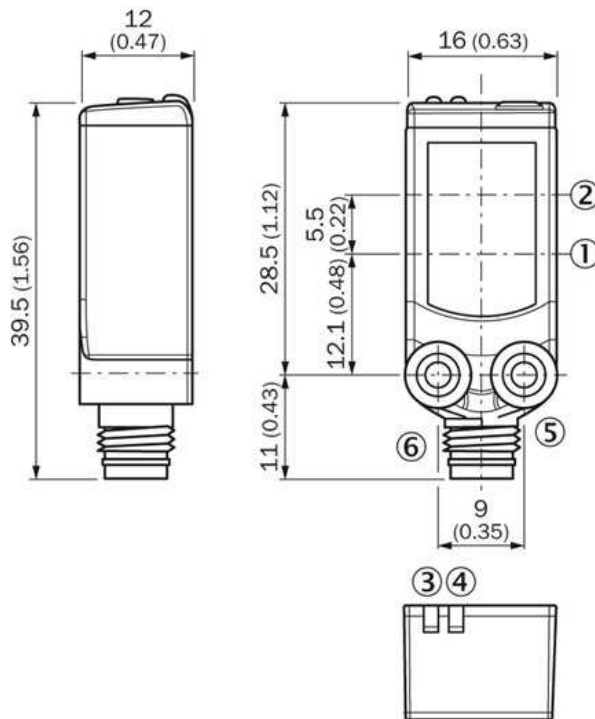
Mechanics/electronics

| | |
|------------------------------------|-----------------------------------|
| Supply voltage: | 10 V DC ... 30 V DC ¹⁾ |
| Ripple:: | < 5 Vpp ^{2) 3)} |
| Power consumption: | ≤ 20 mA ⁴⁾ |
| Output type: | PNP |
| Switching mode: | Light switching |
| Output current I _{max} :: | ≤ 100 mA |
| Response time: | < 0.5 ms ⁵⁾ |
| Switching frequency: | 1,000 Hz ⁶⁾ |
| Connection type: | Connector M8, 3-pin |
| Circuit protection::: | A, C, D ^{7) 8) 9)} |

| | |
|--------------------------------|------------------------------|
| Protection class: | III |
| Weight: | 30 g |
| Polarisation filter: | ✓ |
| 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 |
| Housing material: | ABS, Plastic |

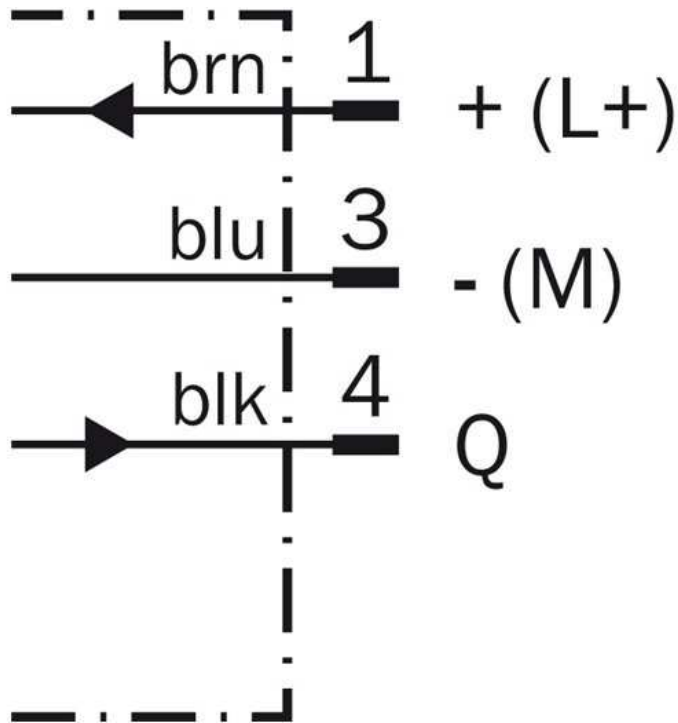
1) Limit values 2) 3) May not exceed or fall short of V_S tolerances 4) Without load 5) Signal transit time with resistive load 6) With light/dark ratio 1:1 7) $A = V_S$
connections reverse-polarity protected 8) C = interference suppression 9) D = outputs overcurrent and short-circuit protected

Dimensional drawing

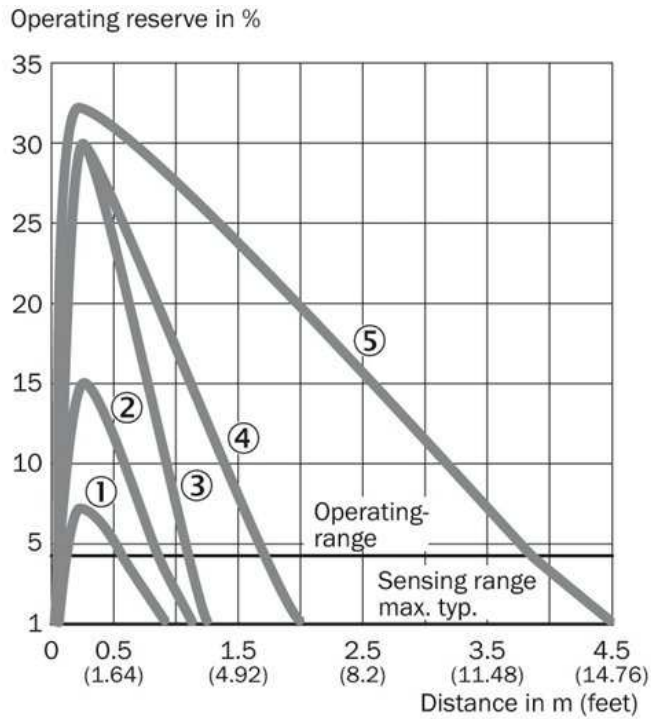


- [1] Center of optical axis, sender
- [2] Center of optical axis, receiver
- [3] LED indicator orange: status of received light beam
- [4] Status indicator LED green: supply voltage on
- [5] Threaded mounting hole M3
- [6] Connection

Connection diagram

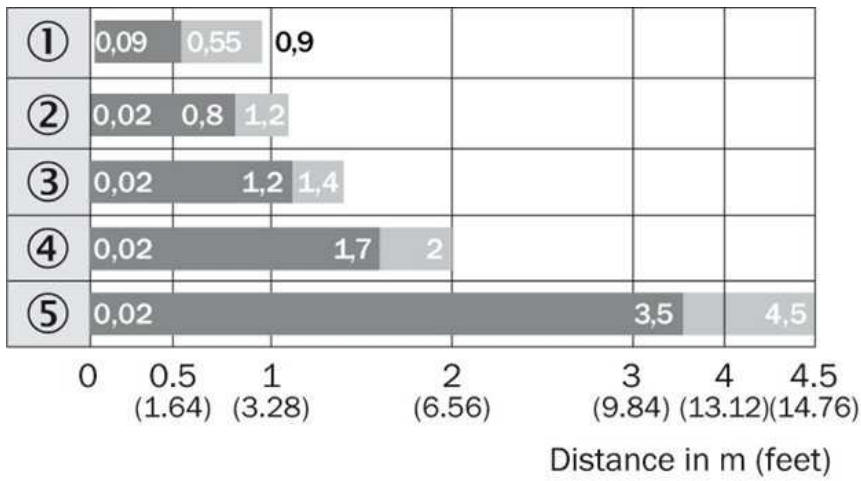


Characteristic curve



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

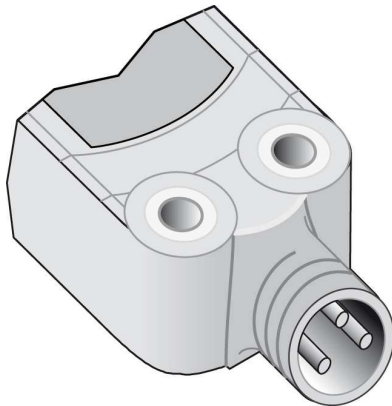
Sensing range diagram



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

■ Sensing range ■ Sensing range max.

Connection type



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