



Photoelectric sensors
W4-3, Photoelectric retro-reflective sensor

WL4-3P1310S31



Model Name > [WL4-3P1310S31](#)
Part No. > [1044668](#)



Illustration may differ

At a glance

- Sensing range from 0.4 ... 9 m
- Outstanding size/performance value
- Rugged plastic housing with M3 threaded metal inserts
- IR LED light

Your benefits

- Sensor can be hidden behind a non-transparent window, which normally blocks visible light
- Less contamination due to a high operating reserve on small reflectors
- Reliable operation in harsh environments



Features

| | |
|----------------------------------|---------------------------------------|
| Sensor/detection principle: | Photoelectric retro-reflective sensor |
| Dimensions (W x H x D): | 16 mm x 39.5 mm x 12 mm |
| Housing design (light emission): | Rectangular |
| Sensing range max.: | ≤ 4.5 m |
| Sensing range: | 0.4 m ... 9 m ¹⁾ |
| Type of light: | Infrared light |
| Light source: | LED ²⁾ |
| Wave length: | 850 nm |
| Light spot size (distance): | Ø 75 mm (1.5 m) |

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

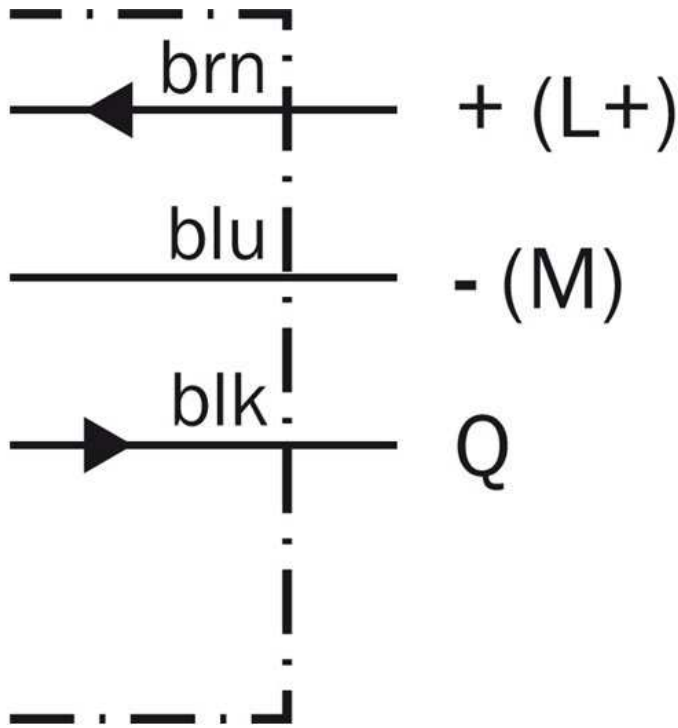
Mechanics/electronics

| | |
|-------------------------------------|-----------------------------------|
| 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: | Cable, 3-wire ⁷⁾ |
| Circuit protection::: | A, C, D ^{8) 9) 10)} |
| Protection class: | III |

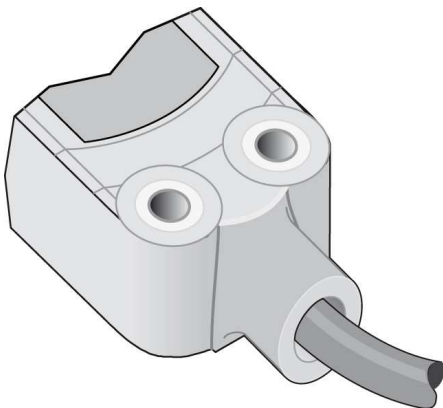
| | |
|--------------------------------|-------------------|
| Weight: | 30 g |
| Polarisation filter: | - |
| Special device: | - |
| Optics material: | PMMA |
| Enclosure rating: | IP 67 IP 66 |
| Ambient operating temperature: | -40 °C ... +60 °C |
| Ambient storage temperature: | -40 °C ... +75 °C |
| 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⁾ Do not bend below 0 °C ⁸⁾ A = V_S connections reverse-polarity protected ⁹⁾ C = interference suppression ¹⁰⁾ D = outputs overcurrent and short-circuit protected

Connection diagram



Connection type



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