



Photoelectric sensors
W14-2, Photoelectric retro-reflective sensor,
Standard optics

WL14-2P430S06



Model Name > [WL14-2P430S06](#)
Part No. > [1041930](#)



Illustration may differ

At a glance

- Emitter LED with visible red light
- Polarizing filter
- High immunity to ambient light
- Rugged plastic housing

Your benefits

- Fast installation due to highly visible red light
- Reliable object detection, even on shiny objects due to a polarizing filter
- Crosstalk and ambient light immunity reduces false readings and downtime
- High availability in the field



Features

| | |
|----------------------------------|--|
| Sensor/detection principle: | Photoelectric retro-reflective sensor, Standard optics |
| Dimensions (W x H x D): | 17.6 mm x 75.5 mm x 33.5 mm |
| Housing design (light emission): | Rectangular, Slim |
| Sensing range max.: | 0.15 m ... 6 m ¹⁾ |
| Sensing range: | 0.15 m ... 4 m ²⁾ |
| Type of light: | Visible red light |
| Light source: | LED ³⁾ |
| Wave length: | 645 nm |
| Angle of dispersion: | Ca. 2 ° |
| Special features: | Heightened vibration resistance |
| Light spot size (distance): | Ø 140 mm (4 m) |

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

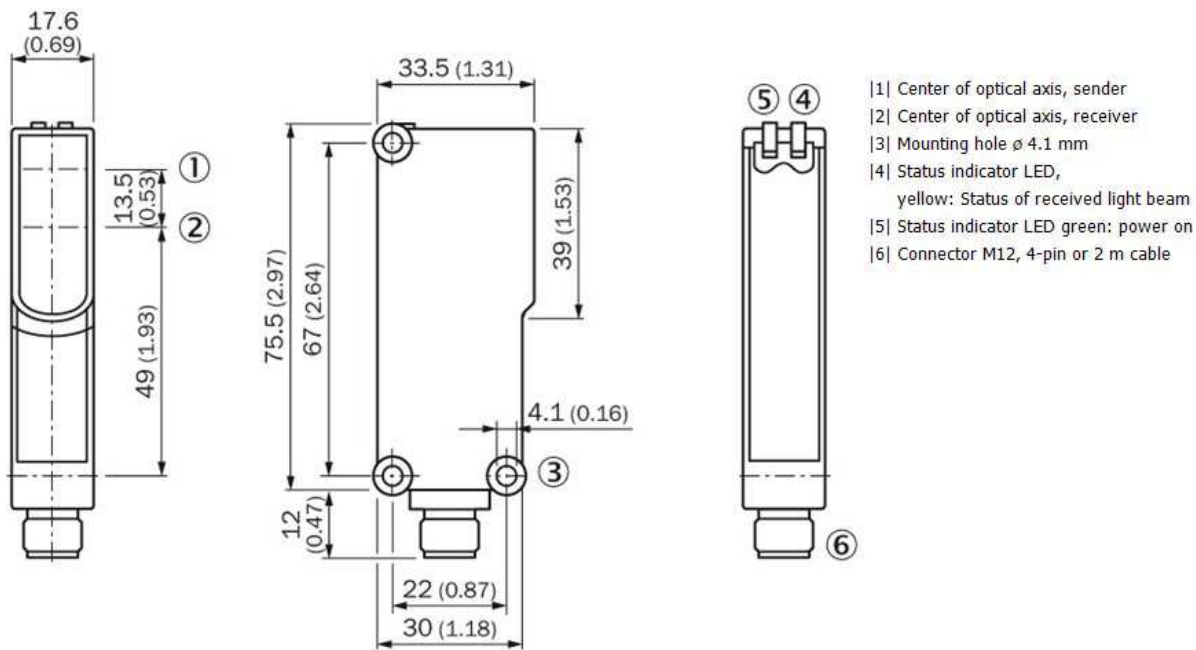
Mechanics/electronics

| | |
|------------------------------------|-----------------------------------|
| Supply voltage: | 10 V DC ... 30 V DC ¹⁾ |
| Ripple: | 5 Vpp ²⁾ |
| Power consumption: | ≤ 35 mA ³⁾ |
| Output type: | PNP |
| Output function: | Complementary |
| Switching mode: | Light/dark switching |
| Output current I _{max.} : | ≤ 100 mA |
| Response time: | ≤ 2.5 ms ⁴⁾ |
| Switching frequency: | 200 Hz ⁵⁾ |

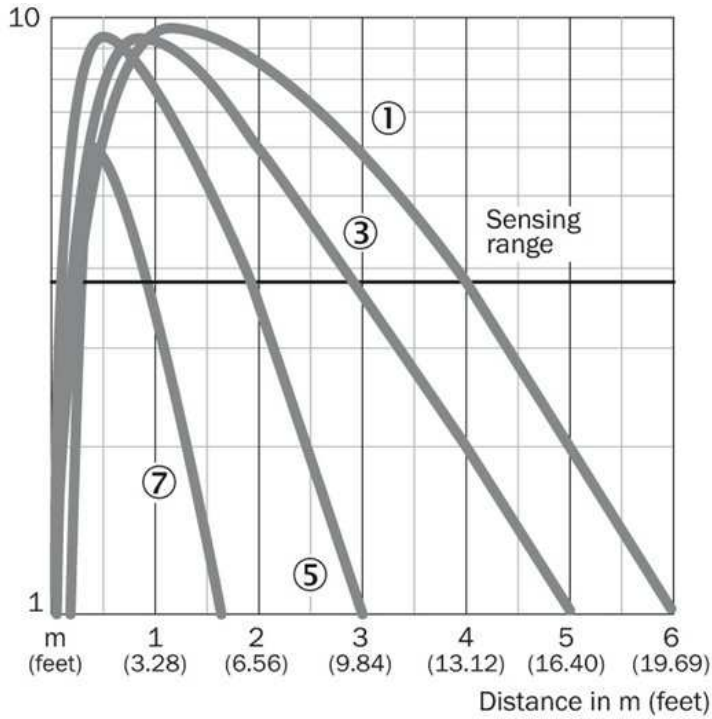
| | |
|--------------------------------|------------------------------|
| Connection type: | Connector M12, 4-pin |
| Circuit protection::: | A, C, D ^{6) 7) 8)} |
| Weight: | 40 g |
| Polarisation filter: | ✓ |
| Special device: | ✓ |
| Housing material: | ABS, Plastic |
| Optics material: | PMMA |
| Enclosure rating: | IP 67 |
| Ambient operating temperature: | -25 °C ... 60 °C |
| Ambient storage temperature: | -40 °C ... 70 °C |
| UL File No.: | NRKH.E181493 & NRKH7.E181493 |

1) Limit values, operation in short-circuit protected network max. 8 A 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) A = V_S connections reverse-polarity protected 7) C = interference suppression 8) D = outputs overcurrent and short-circuit protected

Dimensional drawing

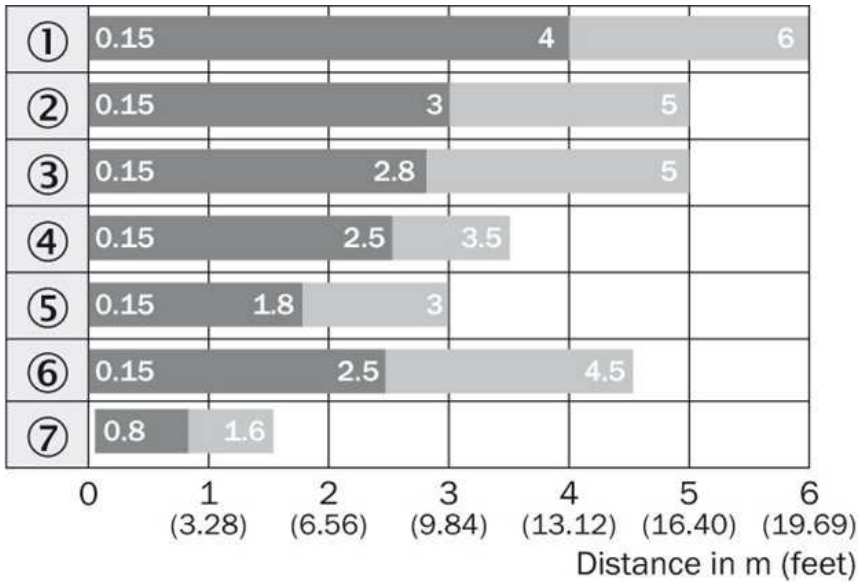


Characteristic curve



- |1| PL80A
- |3| PL40A
- |5| PL20A
- |7| Reflective tape Diamond Grade

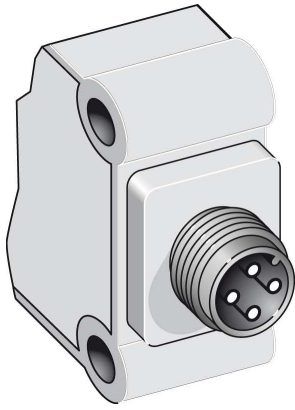
Sensing range diagram



- |1| PL80A
- |2| PL50A
- |3| PL40A
- |4| PL30A
- |5| PL20A
- |6| C110A
- |7| Reflective tape Diamond Grade

■ Sensing range ■ Sensing range max.

Connection type



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