



Photoelectric sensors
W12G, Photoelectric retro-reflective sensor,
autocollimation

WL12G-3F3072S06



Model Name > [WL12G-3F3072S06](#)
Part No. > [1053543](#)



Illustration may differ

At a glance

- Reliable detection of transparent objects
- Optional Continuous Threshold Adaption (CTA)
- Sensing range is adjustable via potentiometer or teach-in pushbutton
- Rugged housing for industrial use
- Highly visible red light spot for versatile detection of objects
- Rugged die-cast zinc housing with optional Teflon® coating
- Versatile mounting options due to dovetail mounting - mounting holes and oblong holes
- Highly visible status LEDs

Your benefits

Reliable detection of transparent objects, including PET bottles and transparent film
PinPoint LED technology provides a bright, small and precise light spot that enables quick and easy sensor alignment

Precise switching characteristics and high-performance object detection provides increased productivity

High immunity to optical interference reduces false readings

Rugged metal housing (optional Teflon® coating available) requires less maintenance due to its resistance to high-pressure cleaning environments

Highly visible status LEDs simplify commissioning, reduce installation time and provide quick diagnostics information

Easy installation using SICK accessories



Features

| | |
|----------------------------------|--|
| Sensor/detection principle: | Photoelectric retro-reflective sensor, autocollimation |
| Dimensions (W x H x D): | 15.5 mm x 48.5 mm x 42 mm |
| Housing design (light emission): | Rectangular |
| Sensing range max.: | 0 m ... 4 m ¹⁾ |
| Type of light: | Visible red light |
| Light source: | PinPoint LED ²⁾ |
| Light spot (distance): | 25 mm (1.5 m) |
| Wave length: | 660 nm |

Sensitivity adjustment:

Teach-in button
Mode I, 10 % attenuation
Mode II, 18 % attenuation

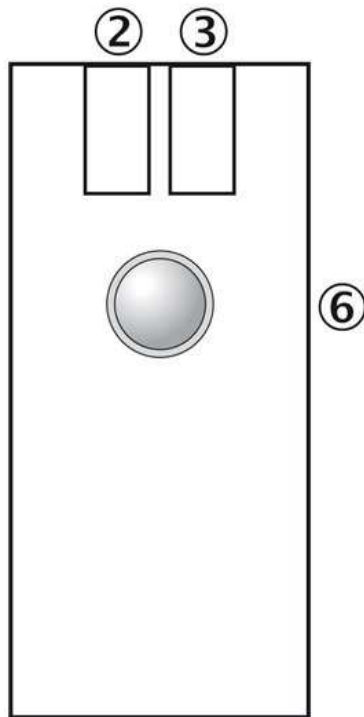
1) PL80A 2) Average service life 100,000 h at Ta = +25 °C

Mechanics/electronics

| | |
|-----------------------------------|---|
| Supply voltage: | 10 V DC ... 30 V DC ¹⁾ |
| Ripple: | ≤ 5 Vpp ²⁾ |
| Power consumption: | ≤ 40 mA ³⁾ |
| Output type: | PNP, Dark-switching |
| Output current I _{max} : | 100 mA |
| Response time: | ≤ 333 μs ⁴⁾ |
| Switching frequency: | 1,500 Hz ⁵⁾ |
| Connection type: | Cable with plug MOLEX MINI-FIT, 3-pin |
| Circuit protection::: | A, B, C, D ^{6) 7) 8) 9)} |
| Protection class: | II ¹⁰⁾ |
| Weight: | 120 g |
| Polarisation filter: | ✓ |
| Special device: | ✓ |
| Housing material: | Zinc diecast |
| Optics material: | PMMA |
| Enclosure rating: | IP 66 IP 67 |
| Special feature: | For transparent objects |
| Operating mode: | Mode I, Mode II |
| Ambient operating temperature: | ≤ 60 °C |
| Ambient storage temperature: | -40 °C ... 75 °C |
| UL File-No.: | UL No. NRKH.E181493 & cUL No. NRKH7.E181493 |

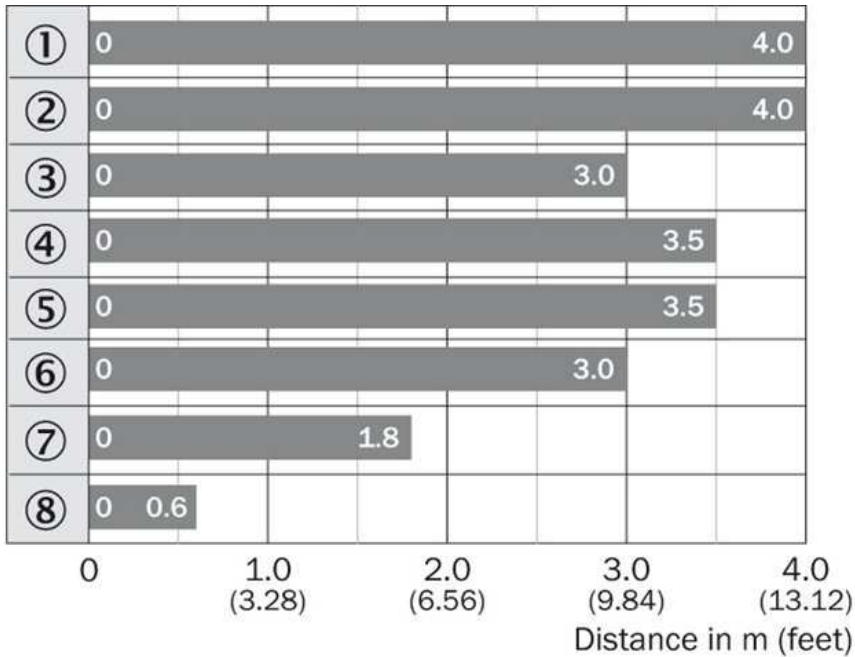
1) Limit values, operation in short-circuit protected network max. 8 A ²⁾ May not exceed or fall short of V_S ³⁾ Without load ⁴⁾ Signal transit time with resistive load ⁵⁾
With light/dark ratio 1:1 ⁶⁾ A = V_S connections reverse-polarity protected ⁷⁾ B = inputs and output reverse-polarity protected ⁸⁾ C = interference suppression ⁹⁾ D =
outputs overcurrent and short-circuit protected ¹⁰⁾ Reference voltage 50 V DC

Adjustments possible



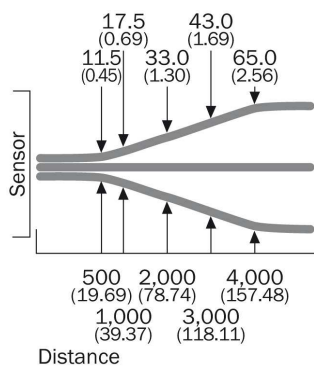
- |2| LED indicator yellow: Light received
- |3| LED indicator, green: power on, teach-in mode I, LED indicator, blue: teach-in mode II
- |6| Single-teach-in button, function
 - 1: teach-in sensitivity on reflector
 - , function 2: change operation/teach-in mode

Sensing range diagram



■ Sensing range max.

Light spot size



All dimensions in mm (inch)

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