



Photoelectric sensors
Reflex Array, Reflex Array

WL27-3P1102S16



Model Name > [WL27-3P1102S16](#)
Part No. > [1050825](#)



Illustration may differ

At a glance

- Detects objects > 12 mm within a 50 mm light array, regardless of position
- Sensing range for detection from 0 m to max. 4.5 m
- Minimum distance of 0.5 m between sensor and reflector for all variants
- PinPoint technology for intense red light
- Automatic adjustment of the switching threshold when there is contamination

Your benefits

- Reduces the installation work required by up to 50% compared to light grids or multiple photoelectric sensors
- Detects objects > 12 mm within a 50 mm light array, regardless of position Three other variants are available for other objects.
- PinPoint technology and optical alignment procedure enables simple and quick commissioning
- Continuous Threshold Adjustment (CTA) ensures less downtime



Features

| | |
|----------------------------------|--|
| Sensor/detection principle: | Reflex Array |
| Dimensions (W x H x D): | 24.6 mm x 80 mm x 54.2 mm |
| Housing design (light emission): | Rectangular |
| Sensing range max.: | 0 m ... 4.5 m ^{1) 2)} |
| Sensing range.: | 0 m ... 4.5 m ^{3) 4)} |
| Type of light: | Visible red light |
| Light source: | PinPoint LED ⁵⁾ |
| Distance sensor to reflector: | 0.5 m ... 4.5 m |
| Minimum object size: | 12 mm, position-independent detection within the light array |
| Adjustment: | Teach-in button |

1) 3) PL80A 2) 4) PL40A 5) Average service life of 100,000 h at T_A = +25 °C

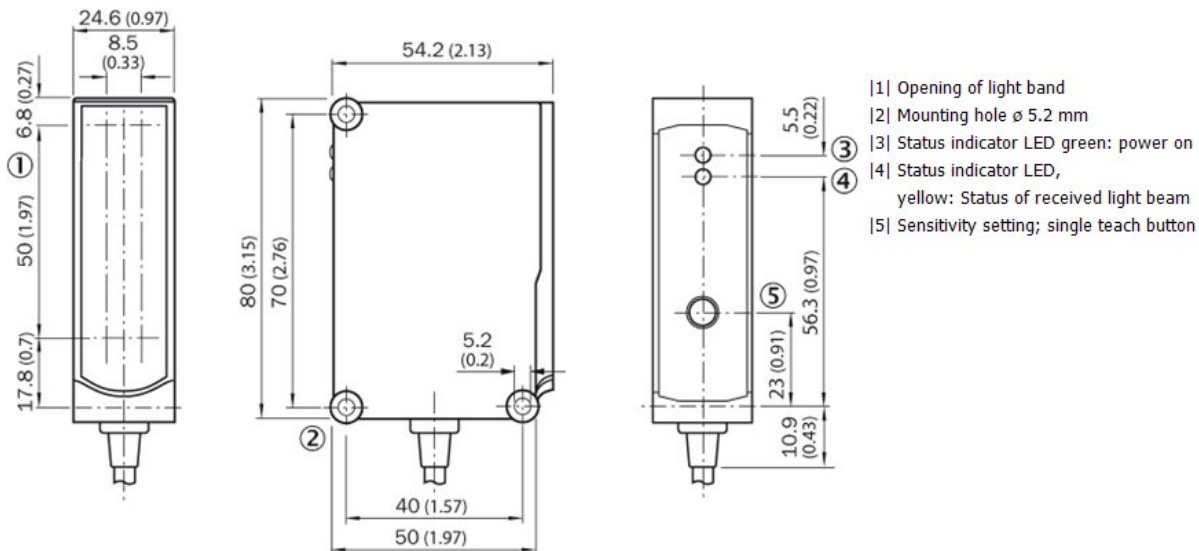
Mechanics/electronics

| | |
|--------------------|-----------------------------------|
| Supply voltage: | 10 V DC ... 30 V DC ¹⁾ |
| Ripple: | ≤ 5 V _{pp} ²⁾ |
| Power consumption: | ≤ 35 mA ³⁾ |
| Output type: | PNP |
| Output function: | Complementary |
| Switching mode: | Light/dark-switching |

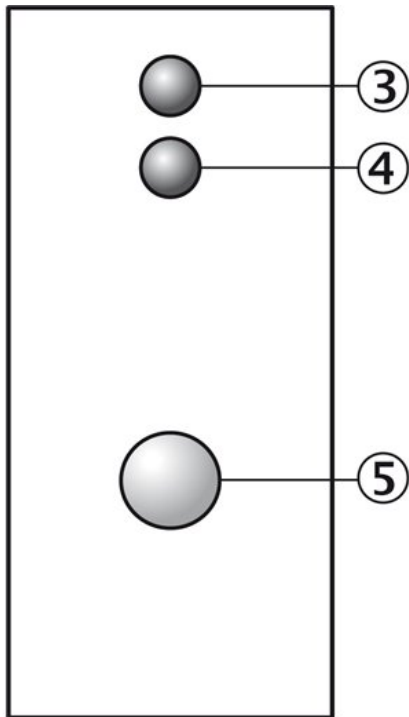
| | |
|------------------------------------|----------------------------------|
| Signal voltage PNP HIGH/LOW: | Approx. VS - 2.5 V/0 V |
| Output current I _{max} :: | ≤ 100 mA |
| Response time: | ≤ 2.5 ms ⁴⁾ |
| Switching frequency: | 200 Hz ⁵⁾ |
| Connection type: | Cable, 4-wire, 2 m ⁶⁾ |
| Cable material: | PVC |
| Circuit protection::: | B ⁷⁾ 8) 9) |
| Protection class: | II ¹⁰⁾ |
| Weight: | 130 g |
| Special device: | ✓ |
| Housing material: | Plastic |
| Optics material: | PMMA |
| Enclosure rating: | IP 67 |
| Special feature: | Light band |
| Ambient operating temperature: | -30 °C ... 60 °C |
| Ambient storage temperature: | -40 °C ... 75 °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) Do not bend below 0 °C 7) A = V_S connections reverse-polarity protected 8) B = inputs and output reverse-polarity protected 9) C = interference suppression 10) Reference voltage 50 V DC

Dimensional drawing

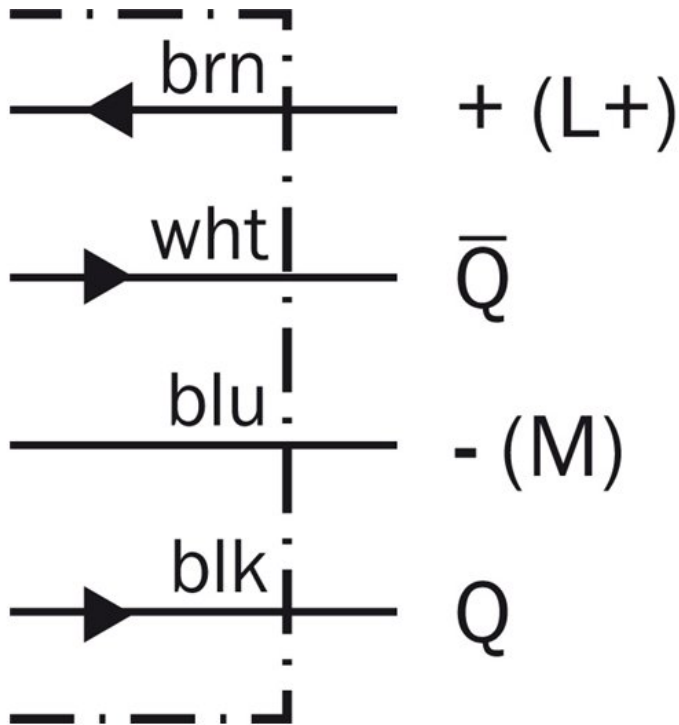


Adjustments possible

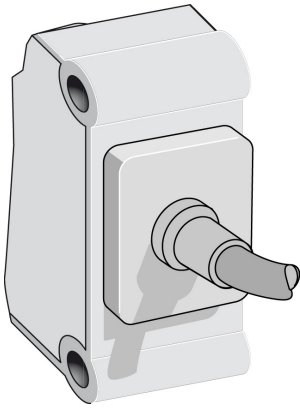


- |3| Status indicator LED green: power on
- |4| Status indicator LED,
yellow: Status of received light beam
- |5| Sensitivity setting; single teach button

Connection diagram



Connection type



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