



Photoelectric sensors
Reflex Array, Photoelectric retro-reflective sensor

WL27-3P2402S18



Model Name > [WL27-3P2402S18](#)
Part No. > [1051577](#)



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:	Photoelectric retro-reflective sensor
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 ... 2 m, 0 m ... 4.5 m ^{1) 2)}
Sensing range::	0 m ... 2 m, 0 m ... 4.5 m ^{3) 4)}
Type of light:	Visible red light
Light source:	PinPoint LED ⁵⁾
Minimum object size:	12 mm, position-independent detection within the light array
Adjustment:	Single teach-in button
Distance of the sensor to reflector:	0.5 m ... 4.5 m

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

Mechanics/electronics

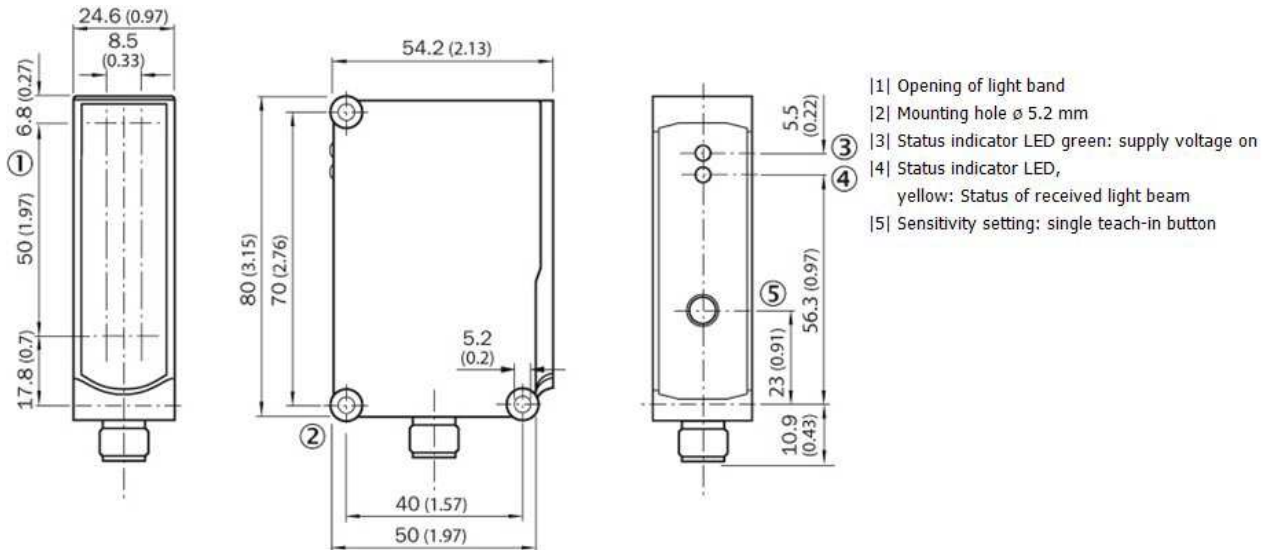
Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	≤ 5 Vpp ²⁾
Power consumption:	≤ 35 mA ³⁾
Output type:	PNP
Output function:	Complementary
Switching mode:	Light/dark switching

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, B, C ^{6) 7) 8)}
Protection class:	II ⁹⁾
Weight:	130 g
Special device:	-
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
Signal voltage PNP HIGH/LOW:	Approx. V _S - 2.5 V/0 V
Housing material:	ABS, Plastic

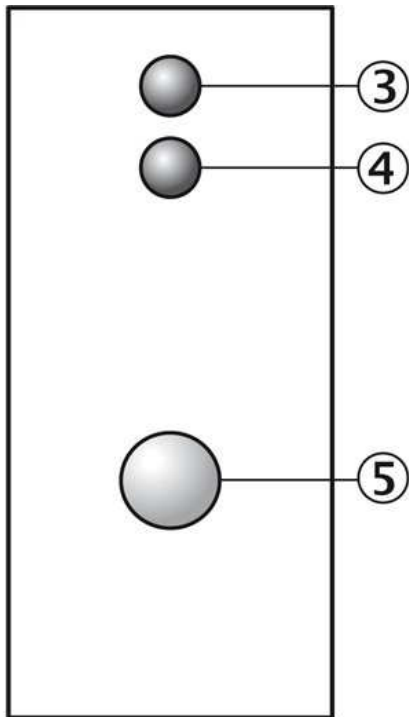
1) Limit values, operation in short-circuit protected network max. 8 A 2) May not exceed or fall short of V_S tolerances 3) Without load 4) Signal transit time with resistive load 5) With light/dark ratio 1:1 6) A = V_S connections reverse-polarity protected 7) B = inputs and output reverse-polarity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

Reference voltage: 50 V DC

Dimensional drawing

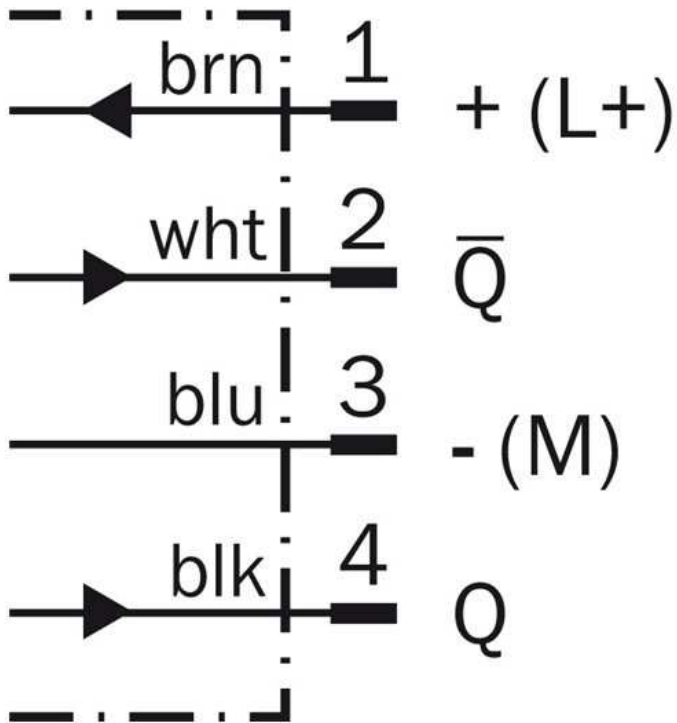


Adjustments possible



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

Connection diagram



Connection type



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