



# WL27-3P3402S13

Reflex Array

PHOTOELECTRIC SENSORS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	Part no.
WL27-3P3402S13	1046538

Other models and accessories → [www.sick.com/Reflex\\_Array](http://www.sick.com/Reflex_Array)

Illustration may differ



### Detailed technical data

#### Features

<b>Sensor/ detection principle</b>	Reflex Array
<b>Dimensions (W x H x D)</b>	24.6 mm x 80 mm x 54.2 mm
<b>Housing design (light emission)</b>	Rectangular
<b>Sensing range max.</b>	0 m ... 4.5 m <sup>1)</sup> 0 m ... 2 m <sup>2)</sup>
<b>Sensing range</b>	0 m ... 4.5 m <sup>1)</sup> 0 m ... 2 m <sup>2)</sup>
<b>Type of light</b>	Visible red light
<b>Light source</b>	PinPoint LED <sup>3)</sup>
<b>Distance of the sensor to reflector</b>	0.5 m ... 4.5 m <sup>1)</sup> 0.5 m ... 2 m <sup>2)</sup>
<b>Minimum object size</b>	12 mm, position-independent detection within the light array
<b>Adjustment</b>	Single teach-in button
<b>AutoAdapt</b>	✓
<b>Special applications</b>	Detecting transparent objects, Detecting perforated objects, Detecting uneven, shiny objects, Detecting objects with position tolerances

<sup>1)</sup> Reflector PL80A.

<sup>2)</sup> Reflector PL40A.

<sup>3)</sup> Average service life: 100,000 h at T<sub>U</sub> = +25 °C.

## Mechanics/electronics

<b>Supply voltage</b>	10 V DC ... 30 V DC <sup>1)</sup>
<b>Ripple</b>	$\leq 5 V_{pp}$ <sup>2)</sup>
<b>Power consumption</b>	$\leq 35 \text{ mA}$ <sup>3)</sup>
<b>Switching output</b>	PNP
<b>Output function</b>	Complementary
<b>Switching mode</b>	Light/dark switching
<b>Signal voltage PNP HIGH/LOW</b>	Approx. $V_S - 2.5 \text{ V} / 0 \text{ V}$
<b>Output current <math>I_{max.}</math></b>	$\leq 100 \text{ mA}$
<b>Response time</b>	$\leq 2.5 \text{ ms}$ <sup>4)</sup>
<b>Switching frequency</b>	$\pm 200 \text{ Hz}$ <sup>5)</sup>
<b>Connection type</b>	Cable with M12 male connector, 4-pin, 270 mm <sup>6)</sup>
<b>Cable material</b>	PVC
<b>Circuit protection</b>	A <sup>7)</sup> B <sup>8)</sup> C <sup>9)</sup>
<b>Protection class</b>	II <sup>10)</sup>
<b>Weight</b>	130 g
<b>Housing material</b>	Plastic, ABS
<b>Optics material</b>	Plastic, PMMA
<b>Enclosure rating</b>	IP67
<b>Special feature</b>	Light band
<b>Ambient operating temperature</b>	$-30 \text{ }^\circ\text{C} \dots +60 \text{ }^\circ\text{C}$ <sup>11)</sup>
<b>Ambient storage temperature</b>	$-40 \text{ }^\circ\text{C} \dots +75 \text{ }^\circ\text{C}$
<b>UL File No.</b>	NRKH.E181493 & NRKH7.E181493

<sup>1)</sup> Limit values when operated in short-circuit protected network: max. 8 A.

<sup>2)</sup> May not exceed or fall below  $U_V$  tolerances.

<sup>3)</sup> Without load.

<sup>4)</sup> Signal transit time with resistive load.

<sup>5)</sup> With light/dark ratio 1:1.

<sup>6)</sup> Do not bend below  $0 \text{ }^\circ\text{C}$ .

<sup>7)</sup> A =  $V_S$  connections reverse-polarity protected.

<sup>8)</sup> B = inputs and output reverse-polarity protected.

<sup>9)</sup> C = interference suppression.

<sup>10)</sup> Reference voltage: 50 V DC.

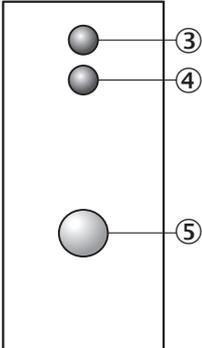
<sup>11)</sup> Avoid condensation on the front screen of the sensor and on the reflector.

## Classifications

<b>ECl@ss 5.0</b>	27270902
<b>ECl@ss 5.1.4</b>	27270902
<b>ECl@ss 6.0</b>	27270902
<b>ECl@ss 6.2</b>	27270902
<b>ECl@ss 7.0</b>	27270902
<b>ECl@ss 8.0</b>	27270902

<b>ECl@ss 8.1</b>	27270902
<b>ECl@ss 9.0</b>	27270902
<b>ETIM 5.0</b>	EC002717
<b>ETIM 6.0</b>	EC002717
<b>UNSPSC 16.0901</b>	39121528

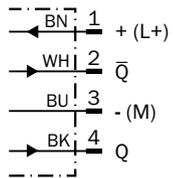
### Adjustments possible



- ③ LED indicator green: Supply voltage active
- ④ LED indicator yellow: Status of received light beam
- ⑤ Sensitivity setting: single teach-in button

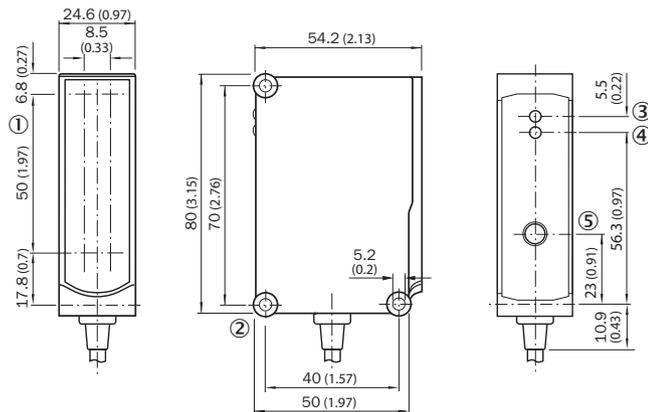
### Connection diagram

Cd-083



**Dimensional drawing** (Dimensions in mm (inch))

WL27-3P1102S16, WL27-3P3402S13, WL27-3P3402S15



- ① Opening of light band
- ② Mounting hole  $\varnothing$  5.2 mm
- ③ LED indicator green: Supply voltage active
- ④ LED indicator yellow: Status of received light beam
- ⑤ Sensitivity setting: single teach-in button

**Recommended accessories**

Other models and accessories → [www.sick.com/Reflex\\_Array](http://www.sick.com/Reflex_Array)

	Brief description	Type	Part no.
<b>Universal bar clamp systems</b>			
	Plate N04 for universal clamp, steel, Zinc plated steel (sheet), Zinc die cast (clamping bracket), Universal clamp (5322626), mounting hardware	BEF-KHS-N04	2051610
<b>Device protection (mechanical)</b>			
	Protective housing for universal clamp, Zinc plated steel (protective housing), Zinc die cast (clamping bracket), Universal clamp (2031357), mounting hardware	BEF-SG-W27	2039601
<b>Mounting brackets and plates</b>			
	Mounting bracket with articulated arm for W11-2, W27, Dx50, steel, zinc coated, mounting hardware included	BEF-WN-MULTI	2064469
	Mounting bracket with hinged arm, steel, zinc coated, mounting hardware included	BEF-WN-W27	2009122
<b>Reflectors</b>			
	Rectangular, screw connection, 47 mm x 47 mm, PMMA/ABS, Screw-on, 2 hole mounting	P250	5304812
	Rectangular, screw connection, 37 mm x 56 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL40A	1012720

# WL27-3P3402S13 | Reflex Array

PHOTOELECTRIC SENSORS

	Brief description	Type	Part no.
	Rectangular, screw connection, 80 mm x 80 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL80A	1003865

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)