



# WL27-3N1102S26

Reflex Array

**MULTITASK PHOTOELECTRIC SENSORS**

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

| Type           | Part no. |
|----------------|----------|
| WL27-3N1102S26 | 1072981  |

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

### Detailed technical data

#### Features

|                                            |                                                                                                                                          |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Sensor/ detection principle</b>         | Photoelectric retro-reflective sensor                                                                                                    |
| <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>Minimum object size</b>                 | 5 mm, position-independent detection within the light array                                                                              |
| <b>Sensing range max.</b>                  | 0 m ... 1.5 m <sup>1)</sup>                                                                                                              |
| <b>Sensing range</b>                       | 0 m ... 1.5 m <sup>1)</sup>                                                                                                              |
| <b>Distance of the sensor to reflector</b> | 0.5 m ... 1.5 m <sup>1)</sup>                                                                                                            |
| <b>Type of light</b>                       | Visible red light                                                                                                                        |
| <b>Light source</b>                        | PinPoint LED                                                                                                                             |
| <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 |
| <b>Special features</b>                    | Detection height 24 mm                                                                                                                   |

<sup>1)</sup> Reflector PL40A.

## Mechanics/electronics

|                                        |                                                       |
|----------------------------------------|-------------------------------------------------------|
| <b>Supply voltage</b>                  | 10 V DC ... 30 V DC <sup>1)</sup>                     |
| <b>Ripple</b>                          | < 5 V <sub>pp</sub> <sup>2)</sup>                     |
| <b>Current consumption</b>             | 35 mA <sup>3)</sup>                                   |
| <b>Switching output</b>                | NPN                                                   |
| <b>Output function</b>                 | Complementary                                         |
| <b>Switching mode</b>                  | Light/dark switching                                  |
| <b>Signal voltage PNP HIGH/LOW</b>     | Approx. V <sub>S</sub> – 2.5 V / 0 V                  |
| <b>Output current I<sub>max.</sub></b> | ≤ 100 mA                                              |
| <b>Response time</b>                   | ≤ 2.5 ms <sup>4)</sup>                                |
| <b>Switching frequency</b>             | 200 Hz <sup>5)</sup>                                  |
| <b>Connection type</b>                 | Cable, 4-wire, 2 m <sup>6)</sup>                      |
| <b>Cable material</b>                  | PVC                                                   |
| <b>Circuit protection</b>              | A <sup>7)</sup><br>B <sup>8)</sup><br>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 °C ... +60 °C <sup>11)</sup>                      |
| <b>Ambient storage temperature</b>     | –40 °C ... +75 °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<sub>v</sub> 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 °C.

<sup>7)</sup> A = V<sub>S</sub> 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.

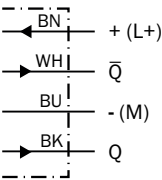
## Classifications

|                     |          |
|---------------------|----------|
| <b>ECI@ss 5.0</b>   | 27270902 |
| <b>ECI@ss 5.1.4</b> | 27270902 |
| <b>ECI@ss 6.0</b>   | 27270902 |
| <b>ECI@ss 6.2</b>   | 27270902 |
| <b>ECI@ss 7.0</b>   | 27270902 |
| <b>ECI@ss 8.0</b>   | 27270902 |

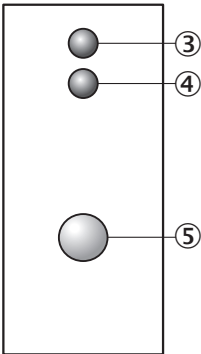
|                       |          |
|-----------------------|----------|
| <b>ECI@ss 8.1</b>     | 27270902 |
| <b>ECI@ss 9.0</b>     | 27270902 |
| <b>ECI@ss 10.0</b>    | 27270902 |
| <b>ECI@ss 11.0</b>    | 27270902 |
| <b>ETIM 5.0</b>       | EC002717 |
| <b>ETIM 6.0</b>       | EC002717 |
| <b>ETIM 7.0</b>       | EC002717 |
| <b>UNSPSC 16.0901</b> | 39121528 |

Connection diagram

Cd-094



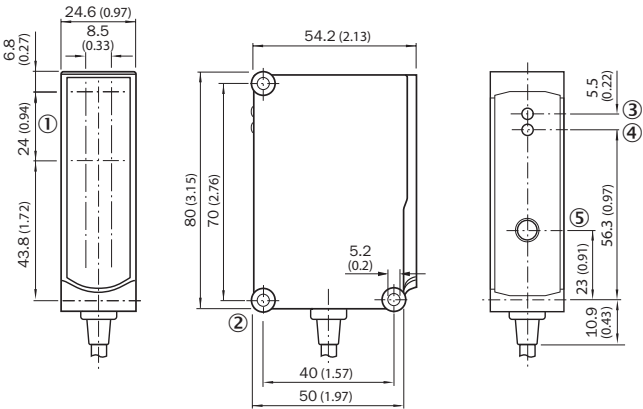
Adjustments



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

Dimensional drawing (Dimensions in mm (inch))

WL27-3P3402S17



Recommended accessories

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

|                                                                                     | Brief description                                                                 | Type        | Part no. |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------|----------|
| Mounting brackets and plates                                                        |                                                                                   |             |          |
|  | Universal mounting bracket for reflectors, steel, zinc coated                     | BEF-WN-REFX | 2064574  |
| Reflectors                                                                          |                                                                                   |             |          |
|  | Rectangular, screw connection, 84 mm x 84 mm, PMMA/ABS, Screw-on, 2 hole mounting | PL80A       | 1003865  |
| Plug connectors and cables                                                          |                                                                                   |             |          |
|  | Head A: male connector, M12, 4-pin, straight<br>Head B: -<br>Cable: unshielded    | STE-1204-G  | 6009932  |

## 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)