



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

Illustration may differ



Detailed technical data

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⁾ 0 m ... 2 m ²⁾
Sensing range	0 m ... 4.5 m ¹⁾ 0 m ... 2 m ²⁾
Type of light	Visible red light
Light source	PinPoint LED ³⁾
Distance of the sensor to reflector	0.5 m ... 4.5 m ¹⁾ 0.5 m ... 2 m ²⁾
Minimum object size	12 mm, position-independent detection within the light array
Adjustment	Single teach-in button
AutoAdapt	✓

¹⁾ Reflector PL80A.

²⁾ Reflector PL40A.

³⁾ Average service life: 100,000 h at T_U = +25 °C.

Mechanics/electronics

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

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

²⁾ May not exceed or fall below U_V 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.

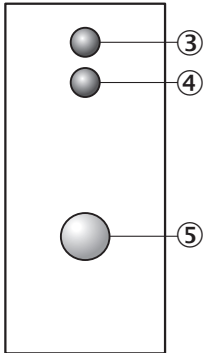
¹¹⁾ Avoid condensation on the front screen of the sensor and on the reflector.

Classifications

ECl@ss 5.0	27270902
ECl@ss 5.1.4	27270902
ECl@ss 6.0	27270902
ECl@ss 6.2	27270902
ECl@ss 7.0	27270902
ECl@ss 8.0	27270902

ECl@ss 8.1	27270902
ECl@ss 9.0	27270902
ETIM 5.0	EC002717
ETIM 6.0	EC002717
UNSPSC 16.0901	39121528

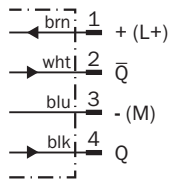
Adjustments possible



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

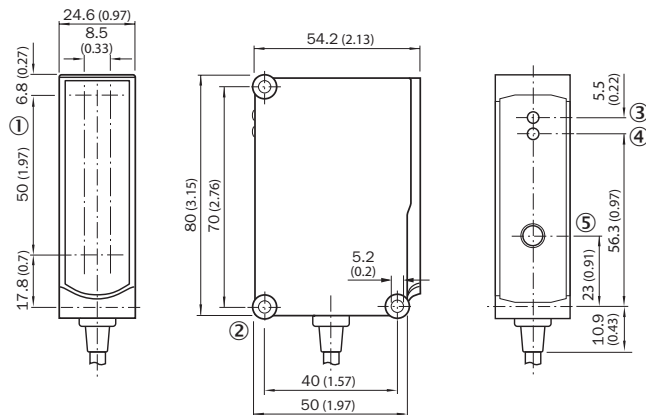
Connection diagram

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

	Brief description	Type	Part no.
Universal bar clamp systems			
	Plate N04 for universal clamp, steel, Zinc plated steel (sheet), Zinc die cast (clamping bracket), Universal clamp (5322626), mounting hardware	BEF-KHS-N04	2051610
Device protection (mechanical)			
	Protective housing for universal clamp, Zinc plated steel (protective housing), Zinc die cast (clamping bracket), Universal clamp (2031357), mounting hardware	BEF-SG-W27	2039601
Mounting brackets and plates			
	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
Reflectors			
	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:

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