

WL9G-3N1234S02

SMALL PHOTOELECTRIC SENSORS





Ordering information

Туре	Part no.
WL9G-3N1234S02	1058701

Other models and accessories → www.sick.com/W9

Illustration may differ



Detailed technical data

Features

Functional principle	Photoelectric retro-reflective sensor
Functional principle detail	Autocollimation
Dimensions (W x H x D)	12.2 mm x 50 mm x 23.6 mm
Housing design (light emission)	Rectangular
Mounting hole	M3
Sensing range max.	0 m 0.7 m ¹⁾
Sensing range	0 m 0.7 m ¹⁾
Type of light	Visible red light
Light source	PinPoint LED ²⁾
Light spot size (distance)	Ø 45 mm (1.5 m)
Wave length	650 nm
Adjustment	Single teach-in button
AutoAdapt	√
Special feature	Detecting transparent objects
Special applications	Detecting transparent objects
Special features	External teach Swichting frequency 3.000 Hz Light switching Without readjustment

 $^{^{1)}}$ Reflective tape Diamond Grade.

 $^{^{2)}}$ Average service life: 100,000 h at TU = +25 °C.

Mechanics/electronics

Supply voltage U _B	10 V DC 30 V DC ¹⁾
Ripple	< 5 V _{pp} ²⁾
Current consumption	20 mA ³⁾
Switching output	NPN ⁴⁾
Switching mode	Light switching ⁴⁾
Output current I _{max.}	≤ 100 mA ⁵⁾
Response time	< 333 µs ⁶⁾
Switching frequency	3,000 Hz ⁷⁾
Connection type	Cable, 4-wire, 5 m ⁸⁾
Cable material	PVC
Conductor cross section	0.14 mm ²
Circuit protection	A ⁹⁾ B ¹⁰⁾ C ¹¹⁾
Protection class	III
Weight	80 g
Polarisation filter	✓
Special device	✓
Housing material	Plastic, VISTAL®
Optics material	Plastic, PMMA
Enclosure rating	IP66 IP67 IP69K
Special feature	Detecting transparent objects
Ambient operating temperature	-40 °C +60 °C
Ambient temperature, storage	-40 °C +75 °C

 $^{^{1)}}$ Limit values when operated in short-circuit protected network: max. 8 $\mbox{\rm A}.$

Classifications

ECLASS 5.0	27270902
ECLASS 5.1.4	27270902
ECLASS 6.0	27270902
ECLASS 6.2	27270902
ECLASS 7.0	27270902

 $^{^{2)}\,\}text{May}$ not exceed or fall below U_{V} tolerances.

³⁾ Without load.

 $^{^{4)}}$ Q = light switching.

 $^{^{5)}}$ At and above Tu 50 °C, a max. load current of Imax. = 50 mA is permitted.

⁶⁾ Signal transit time with resistive load.

⁷⁾ With light/dark ratio 1:1.

⁸⁾ Do not bend below 0 °C.

 $^{^{9)}}$ A = V_S connections reverse-polarity protected.

¹⁰⁾ B = inputs and output reverse-polarity protected.

¹¹⁾ C = interference suppression.

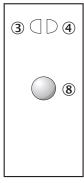
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ECLASS 8.0	27270902
ECLASS 8.1	27270902
ECLASS 9.0	27270902
ECLASS 10.0	27270902
ECLASS 11.0	27270902
ECLASS 12.0	27270902
ETIM 5.0	EC002717
ETIM 6.0	EC002717
ETIM 7.0	EC002717
ETIM 8.0	EC002717
UNSPSC 16.0901	39121528

Adjustments

Single teach-in button



- ③ LED indicator yellow: Status of received light beam
- 4 LED indicator green: power on
- ® Teach-in button

Connection type

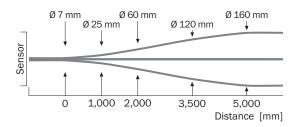


Connection diagram

Cd-351

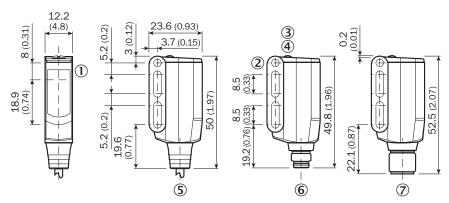


Light spot size



Dimensional drawing (Dimensions in mm (inch))

WL9-3, WSE9-3



- ① Sender and receiver optical axis center
- ② Mounting hole M3 (Ø 3.1 mm)
- ③ LED indicator yellow: Status of received light beam
- 4 LED indicator green: power on
- (5) Connecting cable or connector
- 6 Male connector M8, 4-pin
- ⑦ Male connector M12, 4-pin

Recommended accessories

Other models and accessories → www.sick.com/W9

	Brief description	Туре	Part no.	
Mounting brad	ckets and plates			
	Mounting bracket, steel, zinc coated, mounting hardware included	BEF-WN-W9-2	2022855	
Plug connectors and cables				
	Head A: male connector, M12, 4-pin, straight Cable: unshielded	STE-1204-G	6009932	
Reflectors				
	Fine triple reflector, screw connection, suitable for laser sensors, $52 \text{ mm} \times 62 \text{ mm}$, PM-MA/ABS, Screw-on, 2 hole mounting	P250F	5308843	

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