

WL14-2P030S13

**SMALL PHOTOELECTRIC SENSORS** 





# Ordering information

Туре	Part no.
WL14-2P030S13	1051200

Other models and accessories → www.sick.com/W14

Illustration may differ



### Detailed technical data

#### **Features**

Functional principle	Photoelectric retro-reflective sensor
Functional principle detail	Dual lens
Dimensions (W x H x D)	17.6 mm x 75.5 mm x 33.5 mm
Housing design (light emission)	Rectangular
Sensing range max.	0.5 m 5 m <sup>1)</sup>
Sensing range	0.5 m 4 m <sup>1)</sup>
Focus	Approx. 2°
Type of light	Visible red light
Light source	LED <sup>2)</sup>
Light spot size (distance)	Ø 140 mm (4 m)
Angle of dispersion	Approx. 2°
Wave length	645 nm
Adjustment	None
Special applications	Detecting objects wrapped in film
Special features	High functional reliability on foil-wrapped objects

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

<sup>&</sup>lt;sup>2)</sup> Average service life: 100,000 h at  $T_U$  = +25 °C.

## Mechanics/electronics

Supply voltage	10 V DC 30 V DC <sup>1)</sup>
Ripple	< 5 V <sub>pp</sub> <sup>2)</sup>
Current consumption	35 mA <sup>3)</sup>
Switching output	PNP
Output function	Complementary
Switching mode	Light/dark switching
Output current I <sub>max.</sub>	≤ 100 mA
Response time	≤ 2.5 ms <sup>4)</sup>
Switching frequency	200 Hz <sup>5)</sup>
Connection type	Cable with M12 male connector, 4-pin, 0.1 m $^{6)}$
Cable material	PVC
Circuit protection	A <sup>7)</sup> C <sup>8)</sup> D <sup>9)</sup>
Weight	80 g
Polarisation filter	<b>√</b>
Special device	<b>√</b>
Housing material	Plastic, ABS
Optics material	Plastic, PMMA
Enclosure rating	IP67
Ambient operating temperature	-25 °C +60 °C
Ambient temperature, storage	-40 °C +70 °C
UL File No.	NRKH.E181493 & NRKH7.E181493

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

## Safety-related parameters

MTTF <sub>D</sub>	2,449 years
DC <sub>avg</sub>	0 %

#### 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

 $<sup>^{2)}\,\</sup>mathrm{May}$  not exceed or fall below  $\mathrm{U}_{\mathrm{V}}$  tolerances.

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

<sup>&</sup>lt;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> C = interference suppression.

 $<sup>^{9)}</sup>$  D = outputs overcurrent and short-circuit protected.

# WL14-2P030S13 | W14

# SMALL PHOTOELECTRIC SENSORS

eCl@ss 8.0	27270902
eCl@ss 8.1	27270902
eCl@ss 9.0	27270902
eCl@ss 10.0	27270902
eCl@ss 11.0	27270902
eCl@ss 12.0	27270902
ETIM 5.0	EC002717
ETIM 6.0	EC002717
ETIM 7.0	EC002717
ETIM 8.0	EC002717
UNSPSC 16.0901	39121528

# Connection type

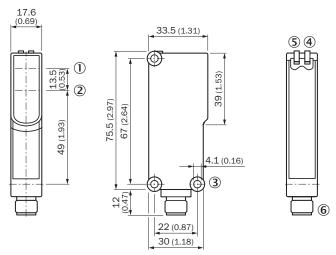


## Connection diagram

Cd-083

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

### WL14-2



- ① Center of optical axis, sender
- ② Center of optical axis, receiver
- 3 Mounting hole ø 4.1 mm
- 4 LED indicator yellow: Status of received light beam
- (5) LED indicator green: Supply voltage active
- 6 M12 male connector, 4-pin or 2 m cable

### Recommended accessories

Other models and accessories → www.sick.com/W14

	Brief description	Туре	Part no.	
Mounting brackets and plates				
	Universal mounting bracket for reflectors, steel, zinc coated	BEF-WN-REFX	2064574	
Plug connecto	Plug connectors and cables			
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF2A14- 050VB3XLEAX	2096235	
	Head A: male connector, M12, 4-pin, straight Cable: unshielded	STE-1204-G	6009932	
Reflectors				
	Rectangular, screw connection, 40 mm x 60 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL40A	1012720	

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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."

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