





**MINIATURE PHOTOELECTRIC SENSORS** 

MINIATURE PHOTOELECTRIC SENSORS



## Ordering information

Туре	Part no.
WL4S-3P3432V	1046426

Other models and accessories → www.sick.com/W4S-3\_Inox





## Detailed technical data

### Features

Sensor/ detection principle	Photoelectric retro-reflective sensor, autocollimation	
Dimensions (W x H x D)	15.25 mm x 49.2 mm x 22.2 mm	
Housing design	Washdown	
Housing design (light emission)	Rectangular	
Sensing range max.	0 m 5 m <sup>1)</sup>	
Sensing range	0 m 3 m <sup>1)</sup>	
Type of light	Visible red light	
Light source	PinPoint LED <sup>2)</sup>	
Light spot size (distance)	Ø 45 mm (1.5 m)	
Wave length	650 nm	
Adjustment	Single teach-in button	
Special applications	Hygienic and washdown zones	

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

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

MINIATURE PHOTOELECTRIC SENSORS

Supply voltage	10 V DC 30 V DC <sup>1)</sup>
Ripple	< 5 V <sub>pp</sub> <sup>2)</sup>
Power consumption	30 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	< 0.5 ms <sup>4)</sup>
Switching frequency	1,000 Hz <sup>5)</sup>
Connection type	Cable with M12 male connector, 4-pin, 150 mm $^{6)~7)}$
Cable material	PVC
Circuit protection	A <sup>8)</sup> B <sup>9)</sup> C <sup>10)</sup>
Protection class	III
Weight	60 g
Polarisation filter	✓
Housing material	Stainless steel, stainless steel 316L
Enclosure rating	IP66, IP67, IP68, IP69K
Ambient operating temperature	-30 °C +70 °C <sup>11)</sup> -30 °C +60 °C
Ambient storage temperature	-30 °C +75 °C
UL File No.	NRKH.E181493 & NRKH7.E181493

#### Mechanics/electronics

 $^{(1)}$  Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8 A.

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

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

 $^{\rm 4)}$  Signal transit time with resistive load.

- <sup>5)</sup> With light/dark ratio 1:1.
- <sup>6)</sup> Max. tightening torque: 0.7 Nm.
- <sup>7)</sup> Do not bend below 0 °C.

 $^{(8)}$  A = V\_S connections reverse-polarity protected.

 $^{9)}$  B = inputs and output reverse-polarity protected.

 $^{10)}$  C = interference suppression.

<sup>11)</sup> At UV  $\leq$  24 V and IA < 30 mA.

#### Classifications

ECI@ss 5.0	27270902
ECI@ss 5.1.4	27270902
ECI@ss 6.0	27270902
ECI@ss 6.2	27270902
ECI@ss 7.0	27270902
ECI@ss 8.0	27270902
ECI@ss 8.1	27270902
ECI@ss 9.0	27270902

MINIATURE PHOTOELECTRIC SENSORS

ETIM 5.0	EC002717
ETIM 6.0	EC002717
UNSPSC 16.0901	39121528

# **Connection diagram**

Cd-083



## Characteristic curve

WL4S-3, WLG4S-3, 5 m



- ③ Reflector PL20A
- ④ PL10F reflector
- ⑤ Reflector P250 CHEM
- ⑥ Reflective tape REF-IRF-56

### Sensing range diagram

### WL4S-3, WLG4S-3, 5 m



Dimensional drawing (Dimensions in mm (inch))

WL4S-3V, WLG4S-3V, with single teach-in button





- ① Center of optical axis
- ② Threaded mounting hole M3
- ③ LED indicator yellow: Status of received light beam
- $\textcircled{\sc 0}$  LED indicator green: Supply voltage active
- ⑤ Teach-in button

MINIATURE PHOTOELECTRIC SENSORS

## Recommended accessories

Other models and accessories → www.sick.com/W4S-3\_Inox

	Brief description	Туре	Part no.
Mounting brac	ckets and plates		
Mar M	Mounting bracket for floor mounting, Stainless steel 1.4571, mounting hardware included	BEF-W4-B	2051630
Plug connecto	ors and cables		
C.	Head A: female connector, M12, 4-pin, straight Head B: Flying leads Cable: PP, unshielded, 5 m This product is generally resistant to chemical cleaning agents (see ECOLAB) and other chemical compounds such as H2O2 and CH2O2. Before permanent installation is car- ried out, the material's resistance to the cleaning agent being used must be checked., Resistant against lactic acid & hydrogen peroxide (H2O2)	DOL-1204-G05MRN	6058476

# 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



Online data sheet

