WL4S-3V1132

W4S-3

MINIATURE PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

WL4S-3V1132 | W4S-3

MINIATURE PHOTOELECTRIC SENSORS

Illustration may differ

Ordering information

Type	Part no.
WL4S-3V1132	1069132

Other models and accessories ➜ www.sick.com/W4S-3

Detailed technical data

Features

Device type	Photoelectric sensors
Dimensions (W x H x D)	12.2 mm x 41.8 mm x 17.3 mm
Housing design (light emission)	Rectangular
Sensing range max.	0 m ... 5 m [1]
Sensing range	0 m ... 3 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

[1] Reflector PL80A.

[2] Average service life: 100,000 h at T_U = +25 °C.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC [1]
Ripple	< 5 V_{pp} [2]
Current consumption	20 mA [3]
Switching output	PNP
Switching mode	Dark switching
Output current $I_{max.}$	≤ 100 mA
Response time	< 0.5 ms [4]
Switching frequency	1,000 Hz [5]
Circuit protection	A [6] C [7] D [8]
Protection class	III
Weight	30 g
Polarisation filter	✓
Housing material	Plastic, ABS
Optics material	Plastic, PMMA
Enclosure rating	IP67 IP66
Ambient operating temperature	–40 °C ... +60 °C
Ambient temperature, storage	–40 °C ... +75 °C

[1] Limit values.

[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] A = V_S connections reverse-polarity protected.

[7] C = interference suppression.

[8] D = outputs overcurrent and short-circuit protected.
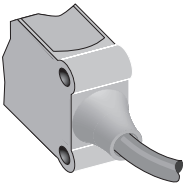
Safety-related parameters

$MTTF_D$	1,530 years
DC_{avg}	0 %
T_M (mission time)	20 years

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
ECl@ss 10.0	27270902

ECl@ss 11.0	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-108

BN	+ (L+)
BU	- (M)
BK	Q
WH	Alarm

Light spot size

Ø 7 mm   Ø 25 mm   Ø 60 mm   Ø 120 mm   Ø 160 mm

Sensor

Distance [mm]
0   1,000   2,000   3,500   5,000
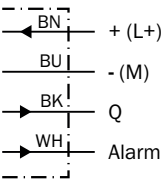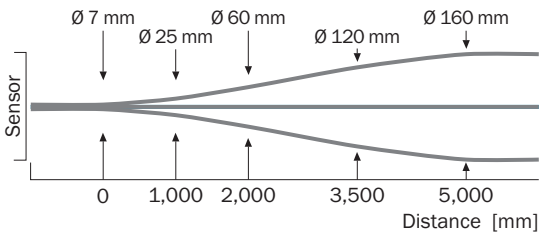
Sensing range diagram

WL4S-3, WLG4S-3, 5 m

①	0	3.0	5.0
②	0	2.0	4.0
③	0	1.3	2.2
④	0	1.2	1.6
⑤	0 0.5	0.8

Distance in m (feet)
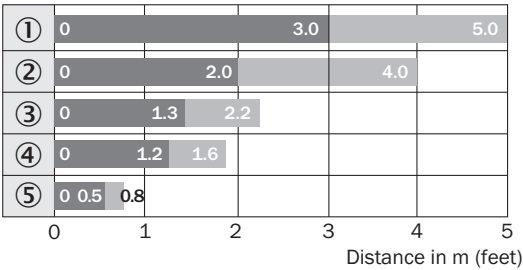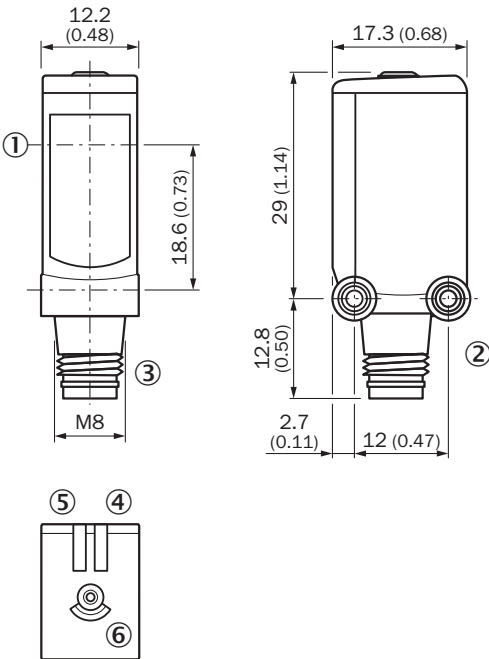
■ Sensing range   ■ Sensing range max.

① Reflector PL80A
② Reflector PL40A
③ Reflector PL20A
④ PL10F reflector
⑤ Reflective tape REF-IRF-56

Dimensional drawing (Dimensions in mm (inch))

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

12.2 (0.48)
18.6 (0.73)
M8
17.3 (0.68)
29 (1.14)
12.8 (0.50)
2.7 (0.11)
12 (0.47)

① Center of optical axis
② Threaded mounting hole M3
③ Connection
④ LED indicator green: Supply voltage active
⑤ Orange LED indicator: status of received light beam
⑥ Teach-in button

Recommended accessories

Mounting brackets and plates

Mounting brackets

Plug connectors and cables

Field-attachable connectors

Reflectors

Fine triple reflectors

Other models and accessories ➜ www.sick.com/W4S-3

Brief description	Type	Part no.
• **Description:** Mounting bracket for wall mounting • **Material:** Stainless steel • **Details:** Stainless steel 1.4571 • **Items supplied:** Mounting hardware included • **Suitable for:** W4-3	BEF-W4-A	2051628
Brief description	**Type**	**Part no.**
• **Connection type head A:** Male connector, M8, 4-pin, straight • **Description:** Unshielded • **Connection systems:** Screw-type terminals • **Permitted cross-section:** 0.14 mm² ... 0.5 mm²	STE-0804-G	6037323
Brief description	**Type**	**Part no.**
• **Description:** Fine triple reflector, screw connection, suitable for laser sensors • **Dimensions:** 20 mm 32 mm • **Ambient operating temperature:** −30 °C ... +65 °C	PL10F	5311210

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."

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