



WL4S-3N1332A01
W4

MINIATURE PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
WLG4S-3N1332A01	1047821

Other models and accessories → www.sick.com/W4

Detailed technical data

Features

Functional principle		Photoelectric retro-reflective sensor
Functional principle detail		Autocollimation
Sensing range max.		0.01 m ... 5 m ¹⁾
Sensing range		0 m ... 3 m ¹⁾
Polarisation filters		Yes
Emitted beam		
	Light source	PinPoint LED ²⁾
	Type of light	Visible red light
	Light spot size (distance)	Ø 45 mm (1.5 m)
Key LED figures		
	Wave length	650 nm
Adjustment		Single teach-in button
Special features		Cable with special connector
Special applications		Detecting transparent objects
AutoAdapt		✓

¹⁾ Reflector PL80A.

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

Safety-related parameters

MTTF _D	1,215 years
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DC _{avg}	0 %
T _M (mission time)	20 years

Electrical data

Supply voltage U _B	10 V DC ... 30 V DC ¹⁾
Ripple	< 5 V _{pp} ²⁾
Current consumption	20 mA ³⁾
Protection class	III
Digital output	
Type	NPN
Switching mode	Light switching
Output current I _{max.}	≤ 100 mA
Response time	< 0.5 ms ⁴⁾
Switching frequency	1,000 Hz ⁵⁾
Attenuation along light beam	> 8 %
Circuit protection	A ⁶⁾ C ⁷⁾ D ⁸⁾

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.

Mechanical data

Housing	Rectangular
Design detail	Slim
Dimensions (W x H x D)	12.2 mm x 41.8 mm x 17.3 mm
Connection	Cable with special connector ¹⁾
Connection detail	
Conductor size	0.14 mm ²
Cable diameter	Ø 3.4 mm
Length of cable (L)	276 mm ¹⁾
Material	
Housing	Plastic, ABS
Front screen	Plastic, PMMA
Cable	PVC
Weight	30 g

1) Do not bend below 0 °C.

Ambient data

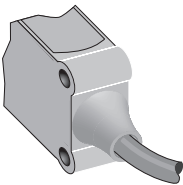
Enclosure rating	IP67
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	IP66
Ambient operating temperature	−40 °C ... +60 °C
Ambient temperature, storage	−40 °C ... +75 °C
UL File No.	NRKH.E181493 & NRKH7.E181493

Classifications

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

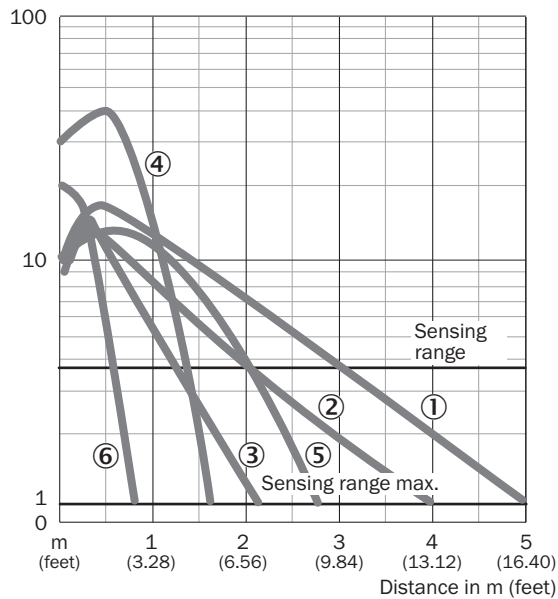
Connection type



Characteristic curve

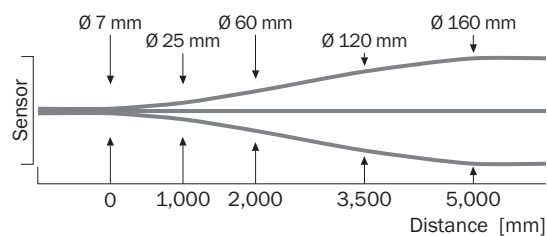
WL4S-3, WLG4S-3, 5 m

Operating reserve



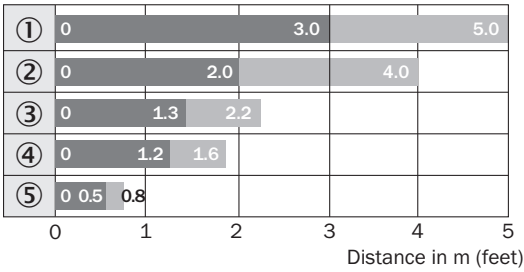
- ① Reflector PL80A
- ② Reflector PL40A
- ③ Reflector PL20A
- ④ PL10F reflector
- ⑤ Reflector P250 CHEM
- ⑥ Reflective tape REF-IRF-56

Light spot size



Sensing range diagram

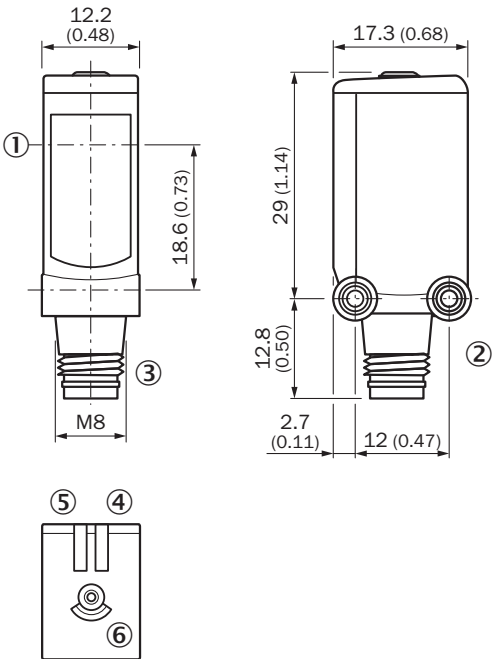
WL4S-3, WLG4S-3, 5 m



- Sensing range
- Sensing range max.
- ① Reflector PL80A
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- ③ Reflector PL20A
- ④ PL10F reflector
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Dimensional drawing (Dimensions in mm (inch))

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



- 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

Other models and accessories → www.sick.com/W4

	Brief description	Type	Part no.
Mounting brackets and plates			
	Mounting bracket for wall mounting, Stainless steel 1.4571, mounting hardware included	BEF-W4-A	2051628
	Universal mounting bracket for reflectors, steel, zinc coated	BEF-WN-REFX	2064574
Reflectors			
	Fine triple reflector, screw connection, suitable for laser sensors, 20 mm x 32 mm, PM-MA/ABS, Screw-on, 2 hole mounting	PL10F	5311210

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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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