



WLG4S-3F3234H

W4

MINIATURE PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ

Ordering information

Type	Part no.
WLG4S-3F3234H	1048121

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



Detailed technical data

Features

Functional principle	Photoelectric retro-reflective sensor
Functional principle detail	Without reflector minimum distance (autocollimation/coaxial optics)
Sensing range max.	0 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	Cable, Single teach-in button ³⁾
Special applications	Hygienic and washdown zones, Detecting transparent objects
Housing design	Hygiene
AutoAdapt	✓

¹⁾ Reflector PL80A.

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

³⁾ External teach-in: pulse > 2 s with voltage U_v with PNP and M with NPN.

Safety-related parameters

MTTF_D	1,215 years
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	30 mA ³⁾
Protection class	III
Digital output	
Type	PNP
Switching mode	Dark 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, B, C ^{6) 7) 8)}

¹⁾ Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8 A.

²⁾ May not fall below or exceed U_y 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⁾ B = inputs and output reverse-polarity protected.

⁸⁾ C = interference suppression.

Mechanical data

Housing	Rectangular
Design detail	Slim
Dimensions (W x H x D)	15.25 mm x 63.2 mm x 22.15 mm
Connection	Cable with M8 male connector, 4-pin ^{1) 2)}
Connection detail	
Length of cable (L)	150 mm ²⁾
Material	
Housing	Metal, Stainless steel V4A (1.4404, 316L)
Front screen	Plastic, PMMA
Cable	Plastic, PVC
Weight	50 g

¹⁾ Max. tightening torque: 0.6 Nm.

²⁾ Do not bend below 0 °C.

Ambient data

Enclosure rating	IP66
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¹⁾ At UV ≤ 24 V and IA < 30 mA.

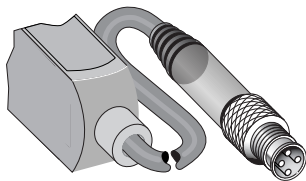
	IP67 IP68 IP69K
Ambient operating temperature	-30 °C ... +70 °C ¹⁾ -30 °C ... +60 °C
Ambient temperature, storage	-30 °C ... +75 °C
UL File No.	FDA, UL No. NRKH.E181493 & cUL No. NRKH7.E181493

¹⁾ At UV ≤ 24 V and IA < 30 mA.

Classifications

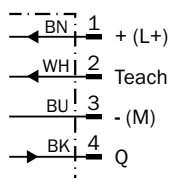
ECLASS 5.0	27270902
ECLASS 5.1.4	27270902
ECLASS 6.0	27270902
ECLASS 6.2	27270902
ECLASS 7.0	27270902
ECLASS 8.0	27270902
ECLASS 8.1	27270902
ECLASS 9.0	27270902
ECLASS 10.0	27270902
ECLASS 11.0	27270902
ECLASS 12.0	27270902
ETIM 5.0	EC002717
ETIM 6.0	EC002717
ETIM 7.0	EC002717
ETIM 8.0	EC002717
UNSPSC 16.0901	39121528

Connection type



Connection diagram

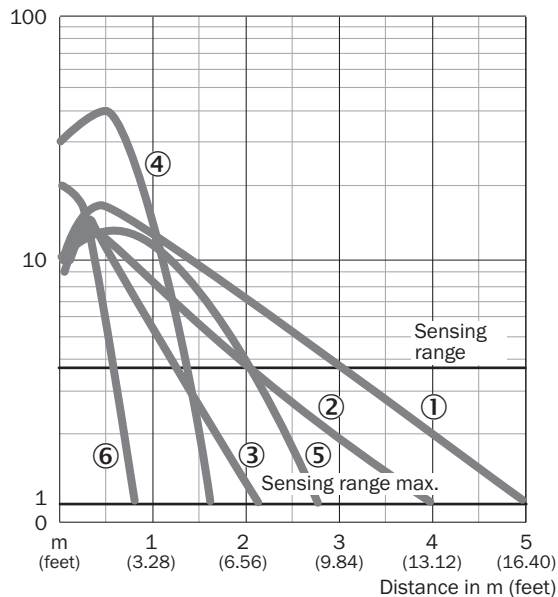
Cd-092



Characteristic curve

WL4S-3, WLG4S-3, 5 m

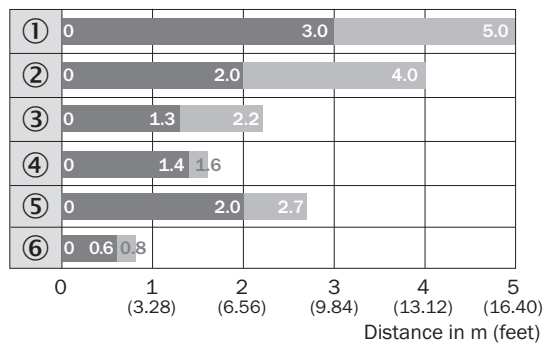
Operating reserve



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

Sensing range diagram

WL4S-3, WLG4S-3, 5 m

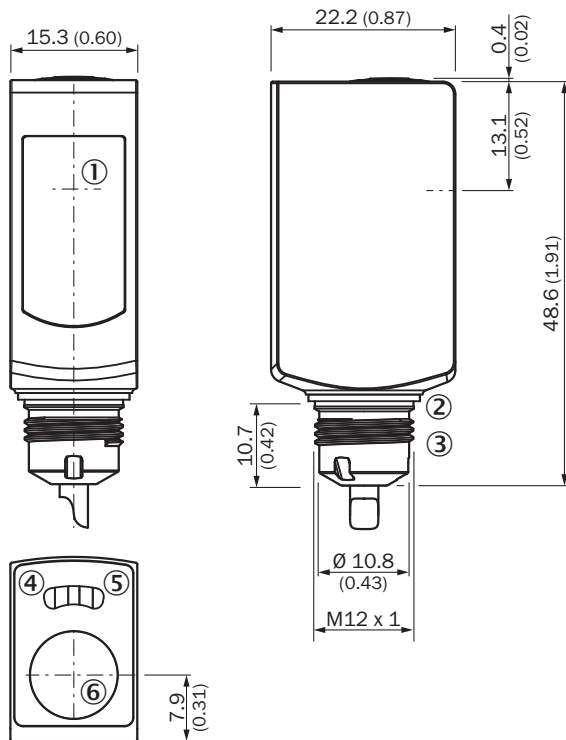


■ Sensing range ■ Sensing range max.

- ① Reflector PL80A
- ② Reflector PL40A
- ③ Reflector PL20A
- ④ PL10F reflector
- ⑤ Reflector P250 CHEM
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Dimensional drawing (Dimensions in mm (inch))



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



- ① Center of optical axis
- ② Sealing ring (tightening torque 6 Nm)
- ③ Connector M12
- ④ LED indicator yellow: Status of received light beam
- ⑤ LED indicator green: Supply voltage active
- ⑥ Teach-in button

Recommended accessories

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

	Brief description	Type	Part no.
Reflectors			
	Chemically resistant, screw connection, 52 mm x 61 mm, plastic, Screw-on, 2 hole mounting	P250 CHEM	5321097
Others			
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M8, 4-pin, straight • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 5 m, 4-wire, PVC • Description: Sensor/actuator cable, unshielded • Connection systems: Flying leads • Note: This product is generally resistant to chemical cleaning agents (see ECOLAB). Please do not use cleaning agents of any other Kind., Not resistant against lactic acid & hydrogen peroxide (H2O2) • Application: Hygienic and washdown zones 	DOL-0804-G05MNI	6059194

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