

WLG4-3F2234 W4

PHOTOELECTRIC SENSORS





Ordering information

Туре	part no.
WLG4-3F2234	1028130

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

Illustration may differ



Detailed technical data

Features

Functional principle	Photoelectric retro-reflective sensor
Sensing range max.	0.01 m 4.5 m ¹⁾
Sensing range	0.02 m 3.5 m ¹⁾
Polarisation filters	Yes
Emitted beam	
Light source	PinPoint LED ²⁾
Type of light	Visible red light
Light spot size (distance)	Ø 75 mm (1.5 m)
Key LED figures	
Wave length	650 nm
Adjustment	Cable, Single teach-in button
Special applications	Detecting transparent objects
AutoAdapt	✓

¹⁾ Reflector PL80A.

 $^{^{2)}}$ Average service life: 100,000 h at T_{U} = +25 °C.

Electronics

Supply voltage \mathbf{U}_{B}	10 V DC 30 V DC ¹⁾
Ripple	< 5 V _{pp} ²⁾
Current consumption	20 mA ³⁾
Protection class	III
Digital output	
Туре	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 ⁶⁾ C ⁷⁾ D ⁸⁾

¹⁾ Limit values.

Mechanics

Housing	Rectangular
Design detail	Flat
Dimensions (W x H x D)	16 mm x 39.5 mm x 12 mm
Connection	Male connector M8, 4-pin
Material	
Housing	Plastic, ABS
Front screen	Plastic, PMMA
Weight	30 g

Ambient data

Enclosure rating	IP67 IP66
Ambient operating temperature	-40 °C +60 °C
Ambient temperature, storage	-40 °C +75 °C

Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓

²⁾ May not fall below or exceed 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.

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ECOLAB certificate	✓
cULus certificate	✓
Photobiological safety (DIN EN 62471) certificate	✓

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

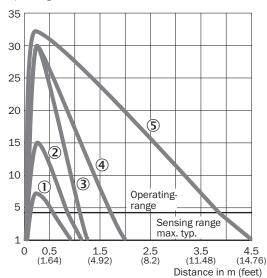
Connection type



Connection diagram Cd-092

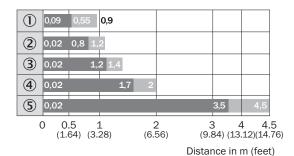
Characteristic curve WLG4-3 with polarisation filter





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

Sensing range diagram WLG4-3 with polarisation filter



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

Modified teach mode

Geänderter Teach Modus modified teach mode WLG4-3

Bitte neuen Teach-In-Mode ab Herstellungswoche **01/2013** berücksichtigen.

Teach-In-Taste drücken:

- 2 Sek. für transparente Objekte (8% Schaltschwelle mit autom. Nachführung)
- 8 Sek. für Standardanwendungen (Schaltschwelle 50%)

Teach-In-Mode vor Herstellungswoche 01/2013

Teach-In-Taste drücken:

- 2 Sek. (50% Schaltschwelle ohne Nachführung)
- 8 Sek. für transparente Objekte (Schaltschwelle 10%)

Please consider new teach-in mode as of production week **01/2013**.

Press teach-in button:

- 2 sec. for clear objects (8% threshold with continuous threshold adaption)
- 8 sec. for standard mode (50% threshold)

Teach-In-Mode before production week 01/2013.

Press teach-in button:

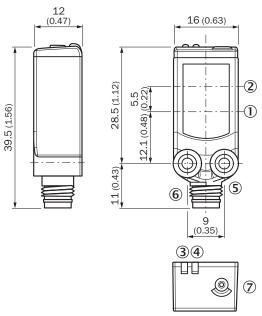
- 2 sec. (50% threshold without continuous threshold adaption)
- -8 sec. for clear objects (threshold 10%)

Bsp. Herstellungswoche 1309 = KW09/2013 eg production week 1309 = CW09/2013





Dimensional drawing WLG4-3



Dimensions in mm (inch)

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

Recommended accessories

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

	Brief description	Туре	part no.
Mounting syst	ems		
2 2 2	 Description: Universal mounting bracket for reflectors Dimensions (W x H x L): 85 mm x 90 mm x 35 mm Material: Steel Details: Steel, zinc coated Suitable for: C110A, P250, PL20, PL30A, PL40A, PL80A 	BEF-WN-REFX	2064574
6	 Description: Plate N08 for universal clamp bracket Material: Steel, zinc diecast Details: Zinc plated steel (sheet), Zinc die cast (clamping bracket) Items supplied: Universal clamp (5322626), mounting hardware Usable for: W100, W150, W4S, W4F, W8, W9-3, W8G, W8 Laser, W8 Inox, G6, W100 Laser, W100-2, W10, G6 Inox, RAY10, W4SLG-3, W9, GR18, MultiPulse, Reflex Array, MultiLine, LUT3, KT5, KT8, KT10, CS8 	BEF-KHS-N08	2051607
	 Description: Plate N11N for universal clamp bracket Material: Stainless steel Details: Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp) Items supplied: Universal clamp (5322627), mounting hardware Usable for: DeltaPac, Glare, WTD20E 	BEF-KHS-N11N	2071081

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	Brief description	Туре	part no.
reflectors and optics			
00	 Description: Fine triple reflector, screw connection, suitable for laser sensors Dimensions: 52 mm 62 mm Ambient operating temperature: -30 °C +65 °C 	P250F	5308843
connectors a	nd cables		
	 Connection type head A: Male connector, M8, 4-pin, straight, A-coded Description: Unshielded Connection systems: Screw-type terminals Permitted cross-section: 0.14 mm² 0.5 mm² 	STE-0804-G	6037323
	Connection type head A: Female connector, M8, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals, Uncontaminated zones	YF8U14-050VA3XLEAX	2095889
	Connection type head A: Female connector, M8, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation	YF8U14-050UA3XLEAX	2094792

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For us, that is "Sensor Intelligence."

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