

WL4SLG-3N1162P01

PHOTOELECTRIC SENSORS





Illustration may differ

Ordering information

Туре	part no.
WL4SLG-3N1162P01	1101033

Included in delivery: P250F (1)

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 4.5 m ¹⁾
Sensing range	0 m 2 m ¹⁾
Polarisation filters	Yes
Emitted beam	
Light source	Laser ²⁾
Type of light	Visible red light
Light spot size (distance)	Ø 1 mm, Ø 20 mm (300 mm, 4,000 mm)
Key laser figures	
Normative reference	EN 60825-1:2014, IEC 60825-1:2014 / CDRH 21 CFR 1040.10 & 1040.11
Laser class	1
Wave length	650 nm
Adjustment	Single teach-in button
Special applications	Detecting transparent objects, Detecting small objects
Items supplied	Reflector P250F
Mounting hole	M3
AutoAdapt	✓

¹⁾ Reflective tape REF-AC1000.

Safety-related parameters

MTTF _D	647 years (EN ISO 13849-1) 1)

 $^{^{1)}}$ Mode of calculation: Parts-Count-calculation.

²⁾ Average service life: 50,000 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	30 mA ³⁾
Protection class	III
Digital output	
Туре	NPN ⁴⁾
Switching mode	Light/dark switching ⁴⁾
Output current I _{max.}	≤ 100 mA
Response time	\leq 0.5 ms $^{5)}$
Switching frequency	1,000 Hz ⁶⁾
Output function	Complementary
Circuit protection	A ⁷⁾ B ⁸⁾ C ⁹⁾

 $^{^{1)}}$ Limit values when operated in short-circuit protected network: max. 8 A.

Mechanics

Rectangular
Slim
12.2 mm x 41.8 mm x 17.3 mm
Cable, 4-wire, 2 m ¹⁾
0.14 mm ²
$2~\mathrm{m}^{~1)}$
Plastic, Novodur
Plastic, PMMA
Plastic, PVC
100 g

 $^{^{1)}}$ Do not bend below 0 °C.

Ambient data

Enclosure rating	IP66

 $^{^{1)}}$ As of T_a = 50 °C, a max. supply voltage V_{max.} = 24 V and a max. load current I_{max.} = 50 mA is permitted.

 $^{^{2)}}$ May not fall below or exceed U_{V} tolerances.

³⁾ Without load.

⁴⁾ Q = light switching.

 $^{^{5)}}$ Signal transit time with resistive load.

⁶⁾ With light/dark ratio 1:1.

 $^{^{7)}}$ A = V_S connections reverse-polarity protected.

⁸⁾ B = inputs and output reverse-polarity protected.

 $^{^{9)}}$ C = interference suppression.

 $^{^{2)}}$ Operation below Tu $^{-}10$ °C is possible if the sensor is already switched on at Tu $^{>}-10$ °C, then cools down, and the supply voltage is subsequently not switched off. Switching on below Tu $^{-}10$ °C is not permissible.

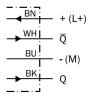
	IP67
Ambient operating temperature	-10 °C +50 °C
Ambient operating temperature extended	-30 °C +55 °C ^{1) 2)}
Ambient temperature, storage	-30 °C +70 °C
RoHS certificate	✓

 $^{^{1)}}$ As of T_a = 50 °C, a max. supply voltage V_{max.} = 24 V and a max. load current I_{max.} = 50 mA is permitted.

Classifications

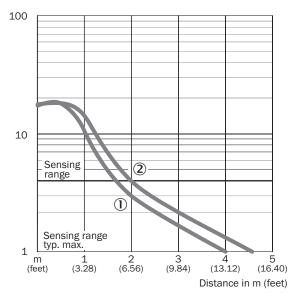
ECLASS 5.0	27270902
ECLASS 5.1.4	27270902
ECLASS 6.0	27270902
ECLASS 6.2	27270902
ECLASS 7.0	27270902
ECLASS 8.0	27270902
ECLASS 8.1	27270902
ECLASS 9.0	27270902
ECLASS 10.0	27270902
ECLASS 11.0	27270902
ECLASS 12.0	27270902
ETIM 5.0	EC002717
ETIM 6.0	EC002717
ETIM 7.0	EC002717
ETIM 8.0	EC002717
UNSPSC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

Connection diagram Cd-094



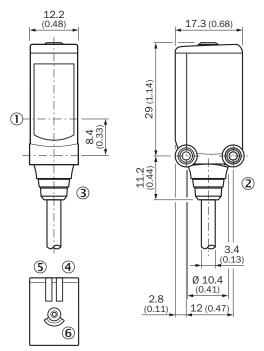
 $^{^{2)}}$ Operation below Tu -10 °C is possible if the sensor is already switched on at Tu > -10 °C, then cools down, and the supply voltage is subsequently not switched off. Switching on below Tu -10 °C is not permissible.

Characteristic curve



- ① Reflector PLV14-A / PLH25-M12 / PLH25-D12
- ② Reflector P41F / reflective tape REF-AC1000

Dimensional drawing WL4SL-3, WL4SLG-3, WSE4SL-3, cable



Dimensions in mm (inch)

- ① Center of optical axis
- ② Threaded mounting hole M3
- ③ Connection
- 4 LED indicator green: Supply voltage active
- (5) LED indicator yellow: Status of received light beam
- ® single teach-in button

Recommended accessories

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

	Brief description	Туре	part no.	
Mounting syst	Mounting systems			
3 A 10 A 1	 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	
N : Fill	 Description: Mounting bracket for floor mounting Material: Stainless steel Details: Stainless steel 1.4571 Items supplied: Mounting hardware included Suitable for: W4S, W4F, W4S 	BEF-W4-B	2051630	
	 Description: Plate NO2N for universal clamp bracket Material: Stainless steel, stainless steel Details: Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp) Items supplied: Universal clamp (5322627), mounting hardware Usable for: W4S-3 Glass, W10, W4SLG-3, W4S-3 Inox, W4S-3 Inox Glass, W9, W11-2, W12-3, W12-2 Laser, W12G, W12 Teflon, W16, W250, W250-2, PowerProx, W11G-2, TranspaTect, WTT12, UC12, P250, G6 Inox, W4S, W4SL-3V, W4SLG-3V, W4SL-3H 	BEF-KHS-N02N	2051618	
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	
reflectors and	optics			
•	 Description: Suitable for laser sensors, self-adhesive, cut, see alignment note Dimensions: 56.3 mm 56.3 mm Ambient operating temperature: -20 °C +60 °C 	REF-AC1000-56	4063030	
connectors and 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: Male connector, M12, 4-pin, straight, A-coded Description: Unshielded Connection systems: Screw-type terminals Permitted cross-section: ≤ 0.75 mm² 	STE-1204-G	6009932	

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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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