



WL4SLG-3P3252

W4

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	part no.
WL4SLG-3P3252	1076051

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 ... 3.5 m ¹⁾
Sensing range	0 m ... 2.2 m ¹⁾
Polarisation filter	Yes
Emitted beam	
Light source	Laser ²⁾
Type of light	Visible red light
Light spot size (distance)	Ø 0.4 mm (60 mm)
Key laser figures	
Normative reference	EN 60825-1:2014, IEC 60825-1:2014 / CDRH 21 CFR 1040.10 & 1040.11
Laser class	1 ³⁾
Wave length	650 nm
Adjustment	Single teach-in button
Special applications	Detecting transparent objects, Detecting small objects
Mounting hole	M3
AutoAdapt	✓

¹⁾ Reflective tape REF-AC1000.

²⁾ Average service life: 50,000 h at T_U = +25 °C.

³⁾ Do not intentionally look into the laser beam. Never point the laser beam at people's eyes.

Safety-related parameters

MTTF_D	647 years (EN ISO 13849-1) ¹⁾
DC_{avg}	0 %

¹⁾ Mode of calculation: Parts-Count-calculation.

Electronics

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 ⁴⁾
	Switching mode	Light/dark switching ⁴⁾
	Output current I _{max.}	≤ 100 mA
	Response time	≤ 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.

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.

Mechanics

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 M8 male connector, 4-pin ¹⁾	
Connection detail	Conductor size	0.14 mm ²
	Length of cable (L)	100 mm ¹⁾
Material	Housing	Plastic, Novodur
	Front screen	Plastic, PMMA
	Cable	Plastic, PVC
Weight	100 g	

¹⁾ Do not bend below 0 °C.

Ambient data

Enclosure rating	IP66 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 $T_a = 50\text{ °C}$, a max. supply voltage $V_{max.} = 24\text{ V}$ and a max. load current $I_{max.} = 50\text{ mA}$ is permitted.

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

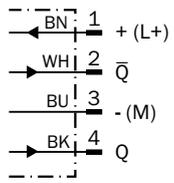
Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
ECOLAB certificate	✓
Laser safety (IEC 60825-1) certificate	✓

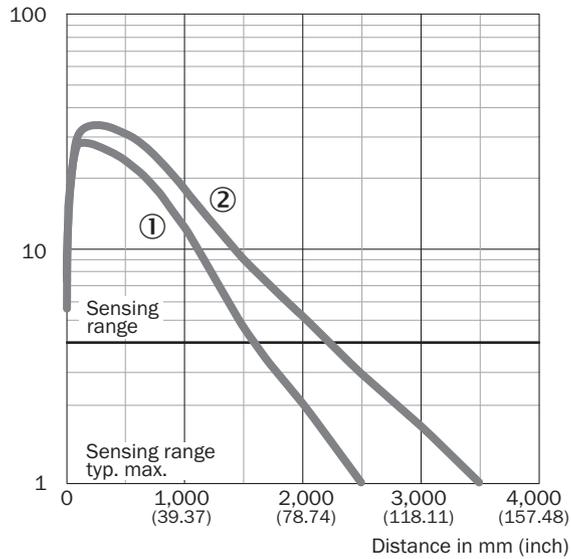
Classifications

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 diagram Cd-083

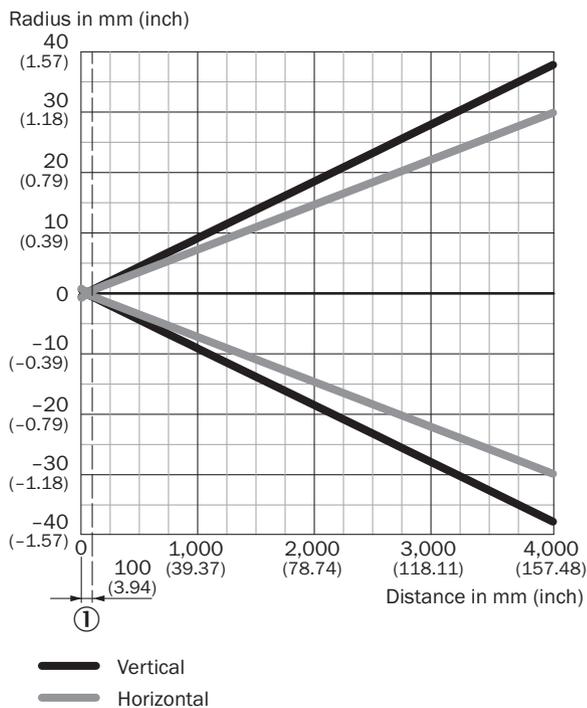


Characteristic curve



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

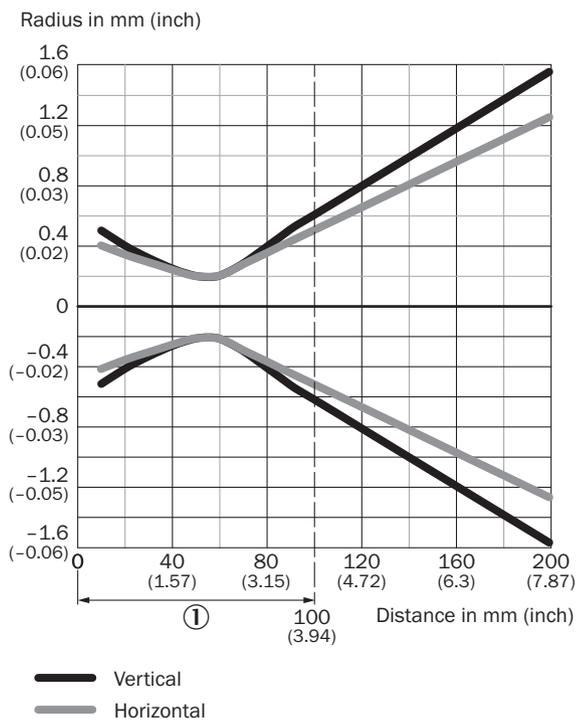
Light spot size



Dimensions in mm (inch)

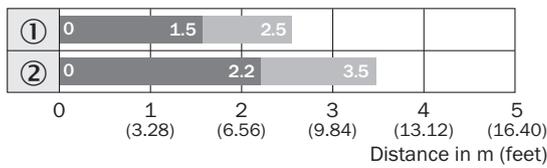
Sensing range	Vertical	Horizontal
60 mm (2.36)	0.4 (0.02)	0.4 (0.02)
200 mm (7.87)	3.2 (0.13)	2.4 (0.09)
2,000 mm (78.74)	40 (1.57)	30 (0.18)
3,500 mm (137.80)	60 (2.36)	50 (1.97)

Light spot size (detailed view)



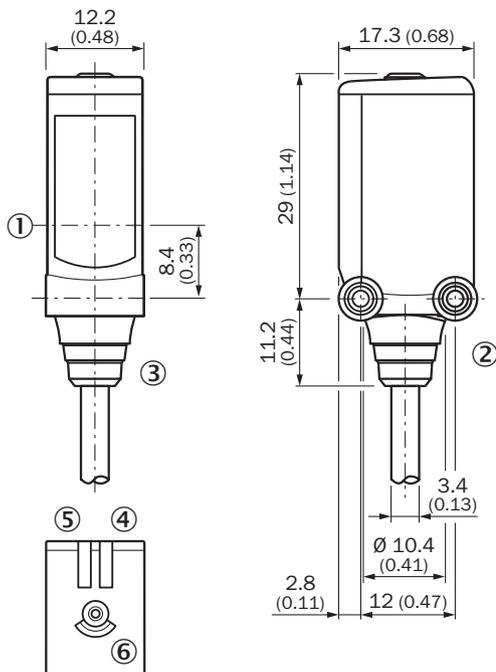
① Minimum distance between sensor and reflector

Sensing range diagram



- Sensing range ■ Sensing range max.
- 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
 - ⑥ single teach-in button

Recommended accessories

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

	Brief description	Type	part no.
Mounting systems			
	<ul style="list-style-type: none"> 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
	<ul style="list-style-type: none"> 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
	<ul style="list-style-type: none"> Description: Plate N02N 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
	<ul style="list-style-type: none"> 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
reflectors and optics			
	<ul style="list-style-type: none"> 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

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.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com