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Photoelectric sensors
W4SLG-3V, Photoelectric retro-reflective sensor, autocollimation

WL4SLG-3P1132V

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Model Name	**> WL4SLG-3P1132V**
Part No.	**> 1058266**

Illustration may differ

At a glance

- Precise laser light spot, laser class 1, no blind spots
- Stainless steel housing with washdown design
- Latest SICK proprietary ASIC and laser technologies for very good background suppression and ambient light immunity
- ECOLAB certified, tested to IP66, IP67, IP68 and IP69K enclosure rating
- Teach-in pushbutton can be switched between detection of transparent and tiny non-transparent objects
- IO-Link (optional)

Your benefits

- Precise laser light spot for highly accurate switching
- Washable stainless steel housing reduces bacterial contamination
- Innovative washdown design with sealed connections and unique patented membrane teach-in pushbutton
- High ambient light immunity reduces incorrect switching and ultimately machine downtime, even when modern energy-saving lights are used
- The highest degree of machine design flexibility. Outstanding BGS (background suppression) eliminates the effect of undesired background reflections. Autocollimation permits detection through very small drilled holes.
- IO-Link provides effortless initial diagnostics of system performance

Features

Sensor/detection principle:	Photoelectric retro-reflective sensor, autocollimation
Dimensions (W x H x D):	15.3 mm x 55.4 mm x 22.2 mm
Housing design:	Washdown [1)]
Housing design (light emission):	Rectangular
Mounting hole:	M3
Sensing range max.::	0 m ... 4.5 m [2) 3)]
Sensing range::	0 m ... 2 m [4) 5)]
Type of light:	Visible red light
Light source:	Laser [6)]
Laser class:	1, 1 (EN60825-1:2008-05 & IEC 60825-1:2007-03/CDRH 21 CFR 1040.10 & 1040.11)
Wave length:	650 nm
Adjustment:	Single teach-in button
Light spot size (distance):	Ø 1 mm (500 mm)

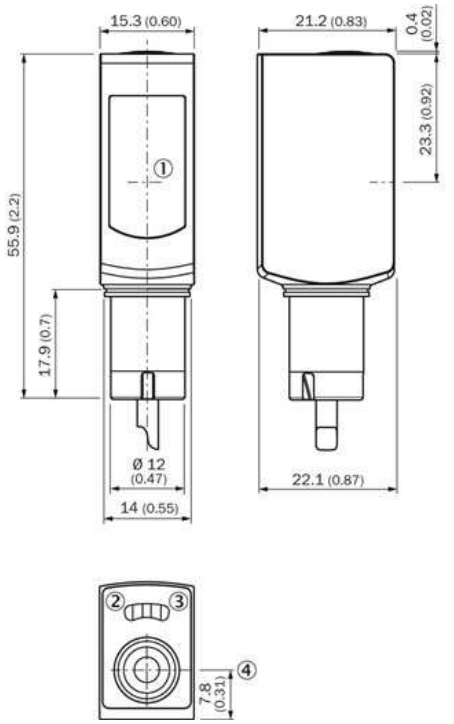
[1] The essential difference between a standard/washdown product and a hygiene product is that where the process and contact with the medium (activity in the vicinity of the food) are concerned, the product is designed in accordance with the latest standards and hygiene design guidelines, and materials are selected accordingly [2] [4] REF-AC1000 [3] [5] We recommend using reflective tape REF-AC1000 or reflectors based on this reflective tape, like P41F, PLV14-A, PLH25-M12 or PLH25-D12, to ensure reliable operation. Reflectors with larger-scaled triple structures should only be used after application clarification [6] Average service life 50,000 h at T_A = +25 °C

Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC [1]
Ripple:	< 5 Vpp [2]
Power consumption:	≤ 30 mA [3]
Output type:	PNP [4]
Output function:	Complementary
Switching mode:	Light/dark switching [5]
Output current Imax.:	≤ 100 mA
Response time:	≤ 0.5 ms [6]
Switching frequency:	1,000 Hz [7]
Connection type:	Cable, 4-wire, 2 m [8]
Cable material:	PVC
Conductor cross-section:	0.14 mm²
Circuit protection:::	A, B, C [9] [10] [11]
Protection class:	III
Weight:	80 g
Polarisation filter:	✓
IO-Link:	-
Special device:	-
Optics material:	PMMA
Enclosure rating:	IP 66, IP 67, IP 68, IP 69K [12]
Special feature:	Detection of transparent objects
Ambient operating temperature:	-10 °C ... +50 °C
Ambient storage temperature:	-30 °C ... +70 °C
Ambient operating temperature extended::	-30 °C ... +55 °C [13] [14]
Housing material:	Stainless steel, Stainless steel V4A (1.4404, 316L)

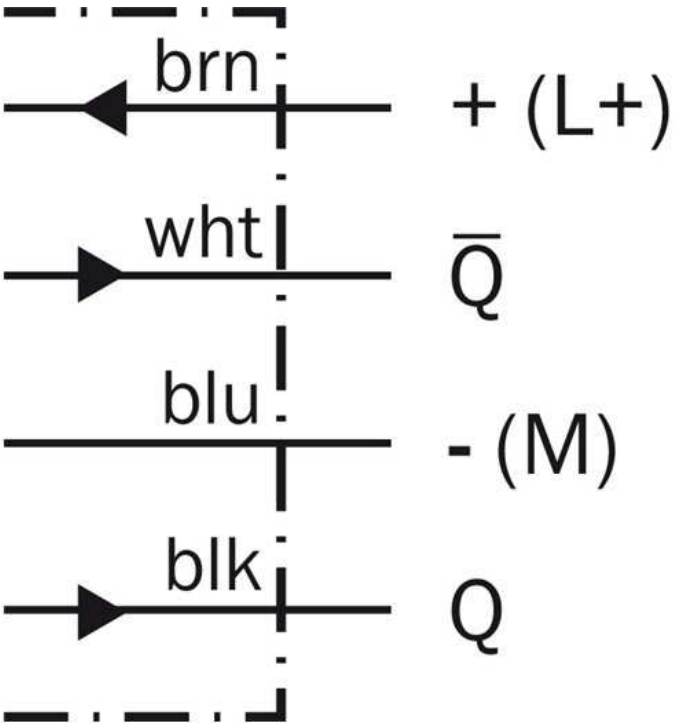
[1] Limit values, operation in short-circuit protected network max. 8 A [2] May not exceed or fall short of V_S tolerances [3] Without load [4] [5] Q = light switching [6] Signal transit time with resistive load [7] With light/dark ratio 1:1 [8] Do not bend below 0 °C [9] A = V_S connections reverse-polarity protected [10] B = inputs and output reverse-polarity protected [11] C = interference suppression [12] Only in case of correctly mounted IP 69K connecting cable [13] 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 [14] Using the sensor below T_a = -10 °C is possible, if the sensor is turned on at T_a > -10 °C, then the environment cools down and the sensor is not disconnected from the supply voltage during the whole time. It is not allowed to turn on the sensor below T_a = -10 °C

Dimensional drawing

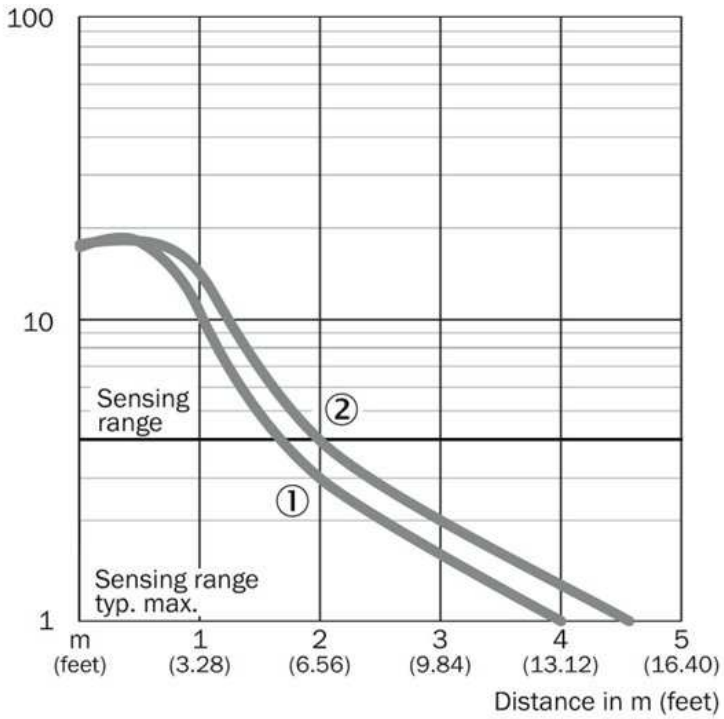


|1| Center of optical axis
|2| Status indicator LED,
yellow: Status of received light beam
|3| Status indicator LED green: power on
|4| single teach-in button

Connection diagram

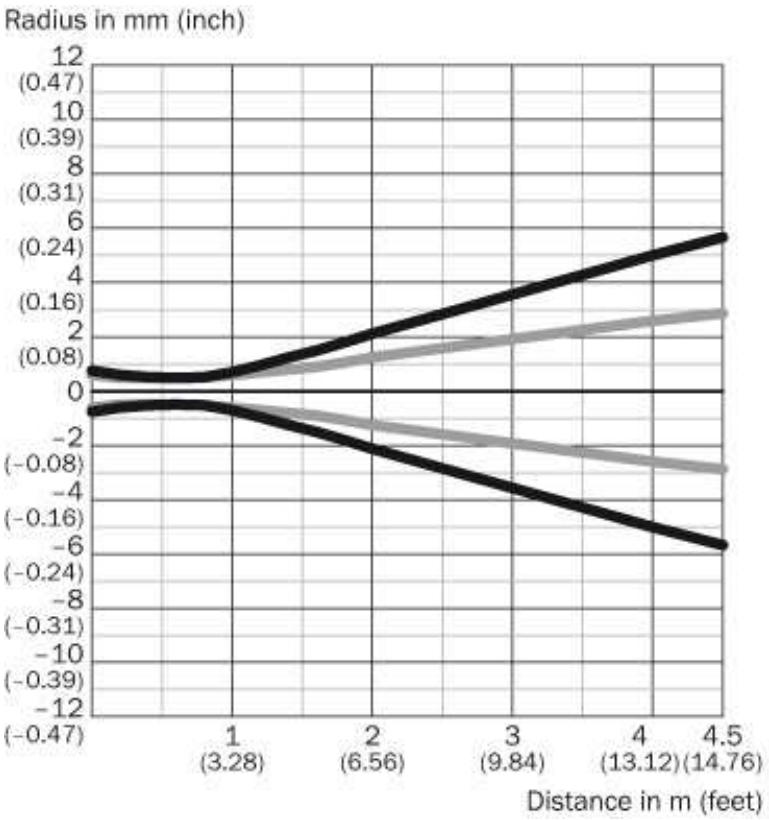


Characteristic curve



|1| PLV14-A / PLH25-M12 / PLH25-D12
|2| P41F / REF-AC1000

Light spot size

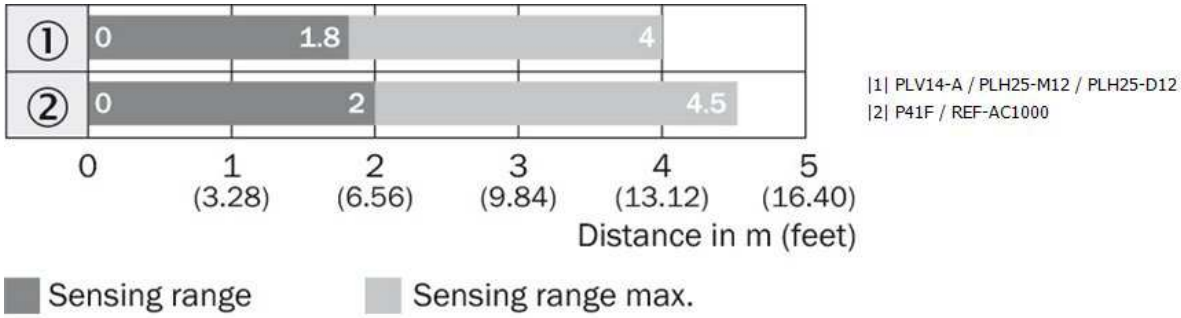


Dimensions in mm (inch)

Sensing range	Vertical	Horizontal
0.5 m (1.64 feet)	< 1.0 (0.04)	< 1.0 (0.04)
1 m (3.28 feet)	1.5 (0.06)	1.2 (0.05)
2 m (6.56 feet)	4.3 (0.17)	2.6 (0.10)
4.5 m (14.76 feet)	11.3 (0.44)	5.6 (0.22)

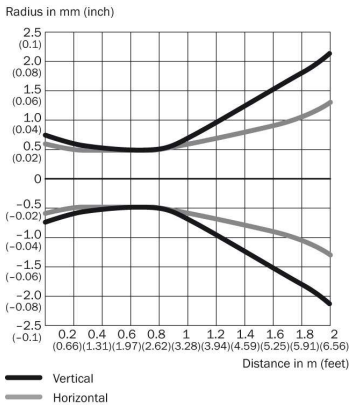
Vertical
Horizontal

Sensing range diagram



|1| PLV14-A / PLH25-M12 / PLH25-D12
|2| P41F / REF-AC1000

Lichtfleckgröße (Detailansicht)



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