ONLINE DATA SHEET
www.mysick.com

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

WL4SLG-3F4134H

SICK
Sensor Intelligence.

SICK
Sensor Intelligence.

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

Model Name > WL4SLG-3F4134H
Part No. > 1058283

Illustration may differ

At a glance

- Precise laser light spot, laser class 1
- Stainless steel housing with hygienic design
- Latest SICK proprietary ASIC and laser technologies for outstanding background suppression and ambient light immunity
- Teach-in pushbutton can be switched between detection of transparent and tiny non-transparent objects
- ECOLAB certified, tested to IP 66, IP 67, IP 68 and IP 69K enclosure rating
- IO-Link (optional)

Your benefits

- Precise laser light spot for highly accurate switching
- Washable stainless steel housing reduces bacterial contamination
- Innovative hygienic design with sealed connections and unique patented membrane teach-in pushbutton
- One sensor for detecting both transparent objects and tiny non-transparent objects. This reduces the variety of sensors and saves on storage costs
- Autocollimation permits detection through very small drilled holes
- IO-Link facilitates, for example, effortless initial system performance diagnostics and uses additional sensor functions to reduce complex control programming

Features

Sensor/detection principle:	Photoelectric retro-reflective sensor, autocollimation
Dimensions (W x H x D):	15.3 mm x 63.2 mm x 22.2 mm
Housing design:	Hygiene [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:	Cable Single teach-in button [7)]
Light spot size (distance):	Ø 1 mm (500 mm)

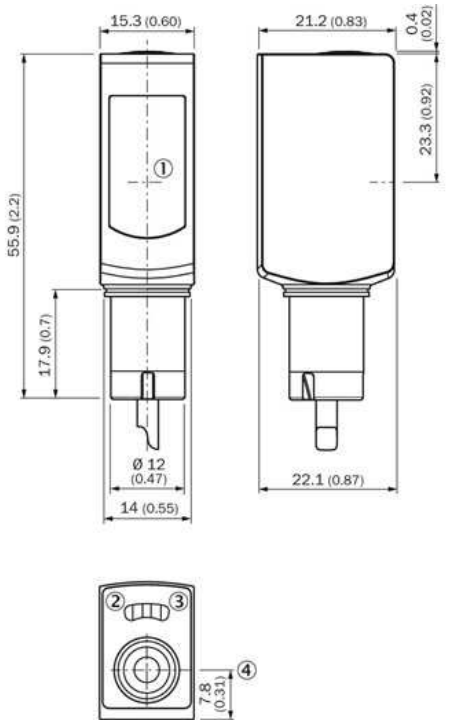
[1] The essential difference between a standard/washdown product and a hygiene product is that where the process and contact with the medium (activity in the vicinity of the food) are concerned, the product is designed in accordance with the latest standards and hygiene design guidelines, and materials 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 [7] Adjustment via cable (ET): white cable or PIN2 according to the desired sensitivity > 2 ... < 8 s or put > 8 s on L+ (PNP) or on M (NPN)

Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC [1]
Ripple:	< 5 Vpp [2]
Power consumption:	≤ 30 mA [3]
Output type:	PNP [4]
Switching mode:	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:	180 g
Polarisation filter:	✓
IO-Link:	-
Optics material:	PMMA
Enclosure rating:	IP 66, IP 67, IP 68, IP 69K [12]
Special feature:	D12 adapter shaft, 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]
Mechanical connection:	D12 adapter shaft
Housing material:	Stainless steel, Stainless steel V4A (1.4404, 316L)

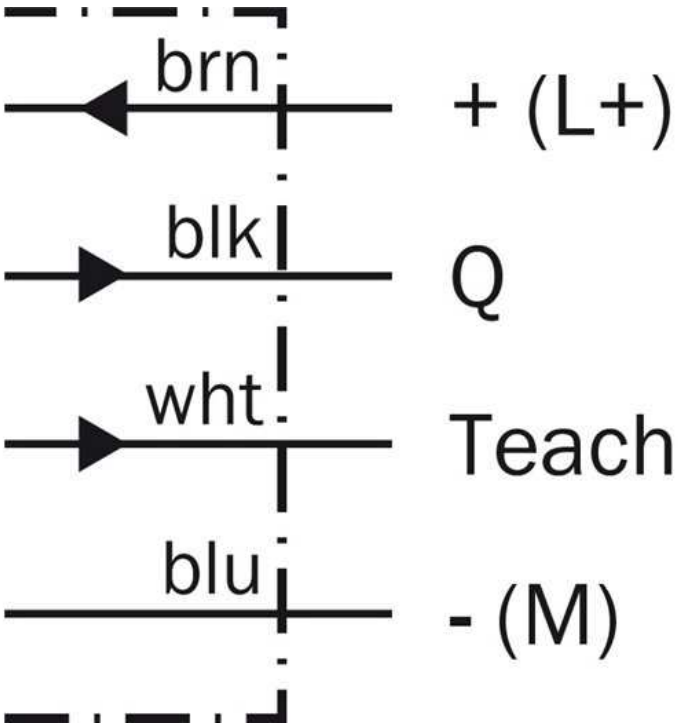
[1] Limit values, operation in short-circuit protected network max. 8 A [2] May not exceed or fall short of V_S tolerances [3] Without load [4] [5] Q = dark switching [6] Signal transit time with resistive load [7] With light/dark ratio 1:1 [8] Do not bend below 0 °C [9] A = V_S connections reverse-polarity 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

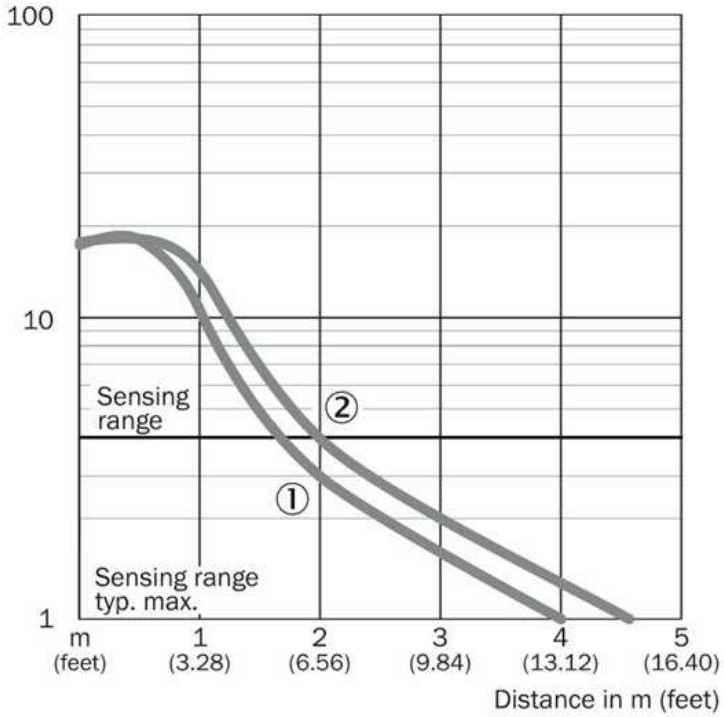


|1| Center of optical axis
|2| Status indicator LED,
yellow: Status of received light beam
|3| Status indicator LED green: power on
|4| single teach-in button

Connection diagram

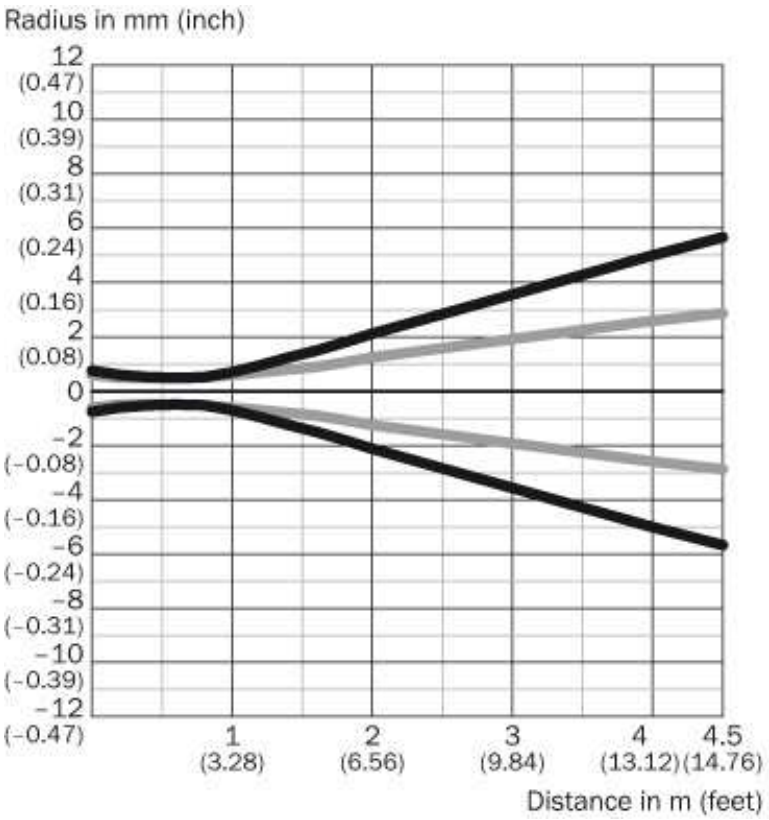


Characteristic curve



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

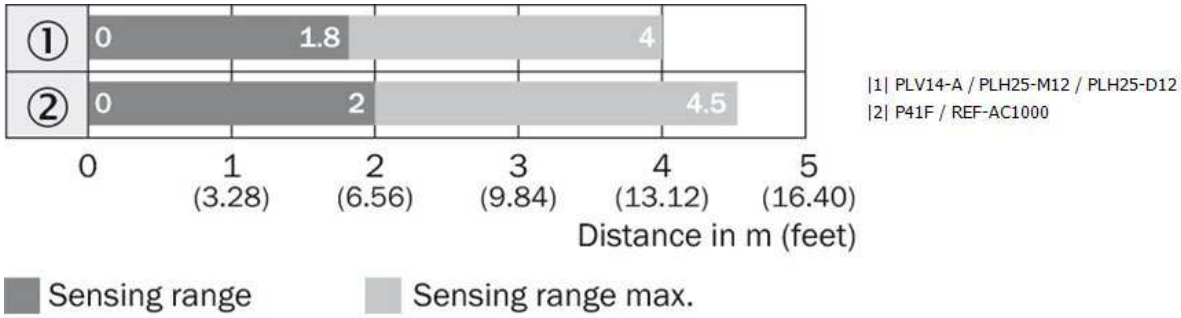
Light spot size



Dimensions in mm (inch)

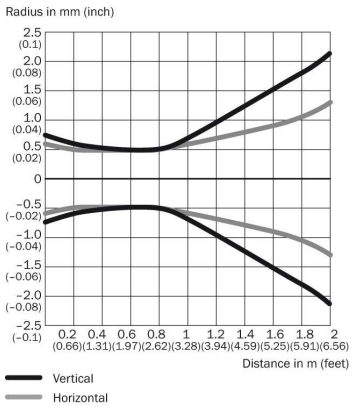
Sensing range	Vertical	Horizontal
0.5 m (1.64 feet)	< 1.0 (0.04)	< 1.0 (0.04)
1 m (3.28 feet)	1.5 (0.06)	1.2 (0.05)
2 m (6.56 feet)	4.3 (0.17)	2.6 (0.10)
4.5 m (14.76 feet)	11.3 (0.44)	5.6 (0.22)

Sensing range diagram



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

Lichtfleckgröße (Detailansicht)



A4 4c int43

Australia
Phone +61 3 9457 0600
1800 33 48 02 – tollfree
E-Mail sales@sick.com.au

Belgium/Luxembourg
Phone +32 (0)2 466 55 66
E-Mail info@sick.be

Brasil
Phone +55 11 3215-4900
E-Mail marketing@sick.com.br

Canada
Phone +1 905 771 14 44
E-Mail information@sick.com

Česká republika
Phone +420 2 57 91 18 50
E-Mail sick@sick.cz

China
Phone +86 4000 121 000
E-Mail info.china@sick.net.cn
Phone +852-2153 6300
E-Mail ghk@sick.com.hk

Danmark
Phone +45 45 82 64 00
E-Mail sick@sick.dk

Deutschland
Phone +49 211 5301-301
E-Mail info@sick.de

España
Phone +34 93 480 31 00
E-Mail info@sick.es

France
Phone +33 1 64 62 35 00
E-Mail info@sick.fr

Great Britain
Phone +44 (0)1727 831121
E-Mail info@sick.co.uk

India
Phone +91–22–4033 8333
E-Mail info@sick-india.com

Israel
Phone +972-4-6881000
E-Mail info@sick-sensors.com

Italia
Phone +39 02 27 43 41
E-Mail info@sick.it

Japan
Phone +81 (0)3 5309 2112
E-Mail support@sick.jp

Magyarország
Phone +36 1 371 2680
E-Mail office@sick.hu

Nederland
Phone +31 (0)30 229 25 44
E-Mail info@sick.nl

Norge
Phone +47 67 81 50 00
E-Mail sick@sick.no

Österreich
Phone +43 (0)22 36 62 28 8-0
E-Mail office@sick.at

Polska
Phone +48 22 837 40 50
E-Mail info@sick.pl

România
Phone +40 356 171 120
E-Mail office@sick.ro

Russia
Phone +7-495-775-05-30
E-Mail info@sick.ru

Schweiz
Phone +41 41 619 29 39
E-Mail contact@sick.ch

Singapore
Phone +65 6744 3732
E-Mail sales.gsg@sick.com

Slovenija
Phone +386 (0)1-47 69 990
E-Mail office@sick.si

South Africa
Phone +27 11 472 3733
E-Mail info@sickautomation.co.za

South Korea
Phone +82 2 786 6321/4
E-Mail info@sickkorea.net

Suomi
Phone +358-9-25 15 800
E-Mail sick@sick.fi

Sverige
Phone +46 10 110 10 00
E-Mail info@sick.se

Taiwan
Phone +886 2 2375-6288
E-Mail sales@sick.com.tw

Türkiye
Phone +90 (216) 528 50 00
E-Mail info@sick.com.tr

United Arab Emirates
Phone +971 (0) 4 88 65 878
E-Mail info@sick.ae

USA/México
Phone +1(952) 941-6780
1 (800) 325-7425 – tollfree
E-Mail info@sickusa.com

More representatives and agencies
at **www.sick.com**

SICK
Sensor Intelligence.