



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

WL4SLG-3F7234H



Model Name > **WL4SLG-3F7234H**
Part No. > **1058281**



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):	12.2 mm x 41.8 mm x 17.3 mm
Housing design:	Hygiene ¹⁾
Housing design (light emission):	Rectangular, Slim
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 (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 and teach-in via cable 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)}

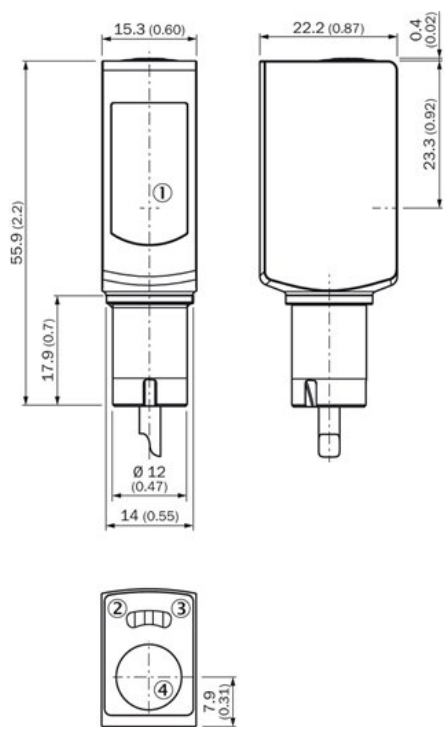
REF-AC1000^{3) 5)} We recommend using reflective tape REF-AC1000 or reflectors based on this reflective tape, like P41F, PLV14-A, PLH25-M12 or PLH25-D12, to ensure reliable operation. Reflectors with larger-scaled triple structures should only be used after application clarification⁶⁾ Average service life 50,000 h at $T_A = +25$ °C⁷⁾ 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⁾
Power consumption:	≤ 30 mA ²⁾
Output type:	PNP ³⁾
Switching mode:	Dark-switching ⁴⁾
Output current I _{max.} :	≤ 100 mA ⁵⁾
Response time:	≤ 0.5 ms ⁵⁾
Switching frequency:	1,000 Hz ⁶⁾
Connection type:	Cable with connector M8, 4-pin, 150 mm ⁷⁾
Cable material:	PVC
Conductor cross-section:	0.14 mm ²
Circuit protection:::	A, B, C ^{8) 9) 10)}
Protection class:	III
Weight:	100 g
Polarisation filter:	✓
IO-Link:	-
Housing material:	Stainless steel
Optics material:	PMMA
Enclosure rating:	IP 66, IP 67, IP 68, IP 69K ¹¹⁾
Special feature:	D12 adapter shaft, For transparent objects
Ambient operating temperature:	-30 °C ... 50 °C
Ambient storage temperature:	-30 °C ... 70 °C
Ambient operating temperature extended::	-30 °C ... 55 °C ^{12) 13)}
MTTFd:	647 a (EN ISO 13849-1) ¹⁴⁾

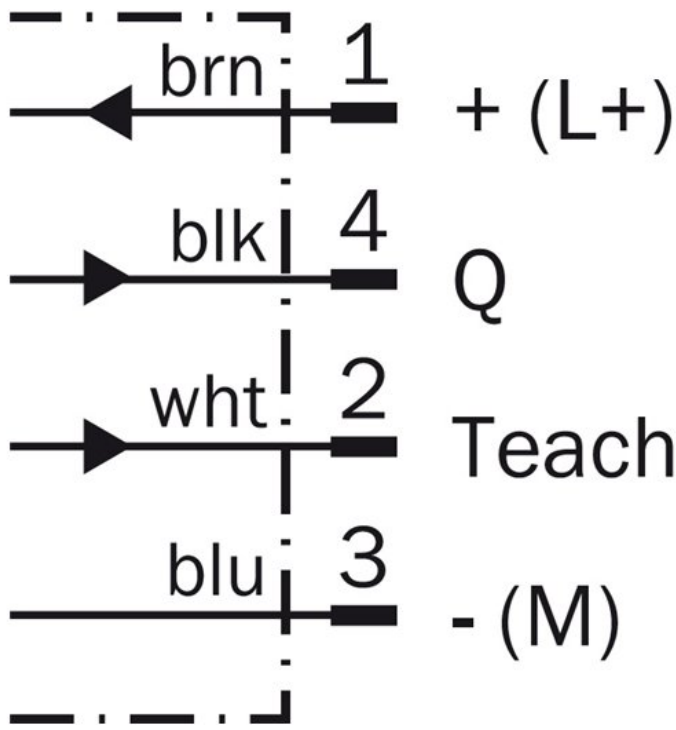
¹⁾ Limit values, operation in short-circuit protected network max. 8 A ²⁾ Without load ^{3) 4)} Q = dark-switching ⁵⁾ Signal transit time with resistive load ⁶⁾ With light/dark ratio 1:1 ⁷⁾ Do not bend below 0 °C ⁸⁾ A = V_S connections reverse-polarity protected ⁹⁾ B = inputs and output reverse-polarity protected ¹⁰⁾ C = interference suppression ¹¹⁾ Only in case of correctly mounted IP 69K connecting cable ¹²⁾ 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 ¹³⁾ 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 ¹⁴⁾ Mode of calculation: Parts-Count-calculation

Dimensional drawing

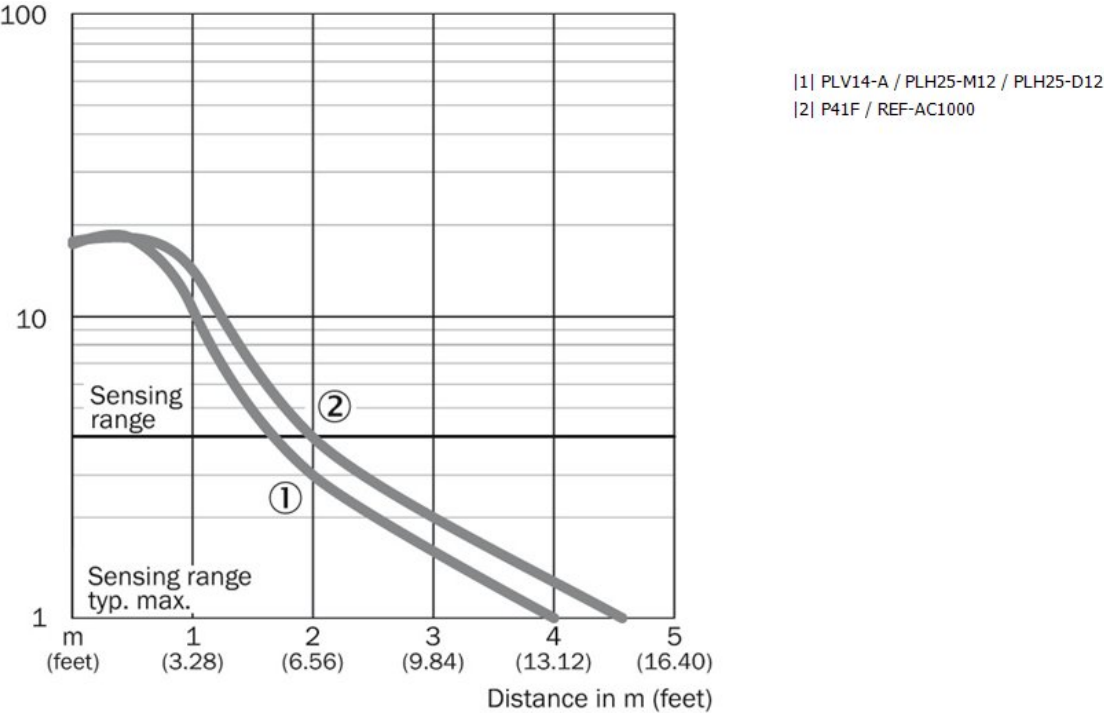


- |1| Center of optical axis
- |2| Status indicator LED,
yellow: Status of received light beam
- |3| Status indicator LED green: power on
- |4| single teach-in button

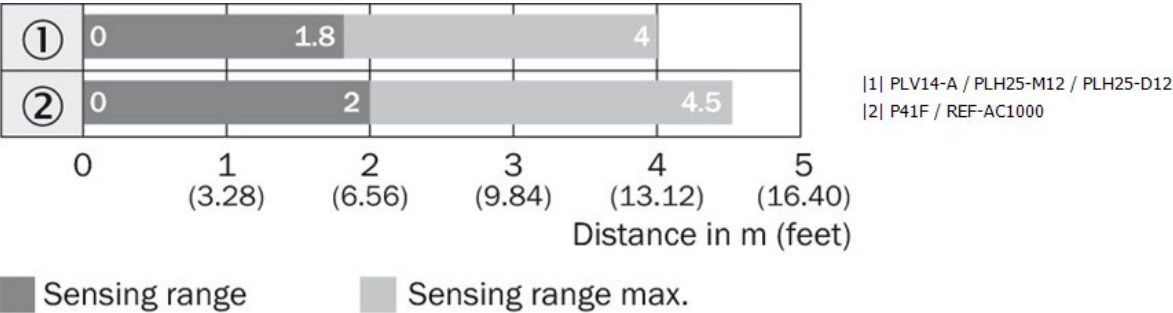
Connection diagram



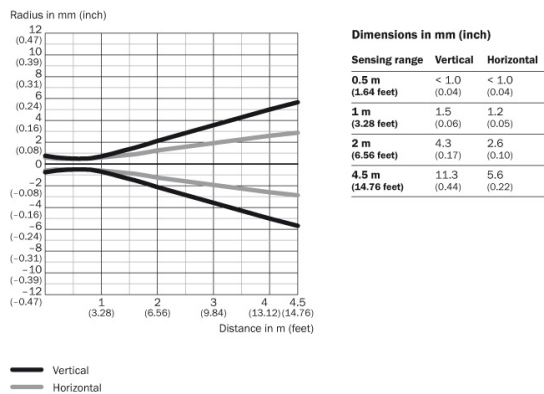
Characteristic curve



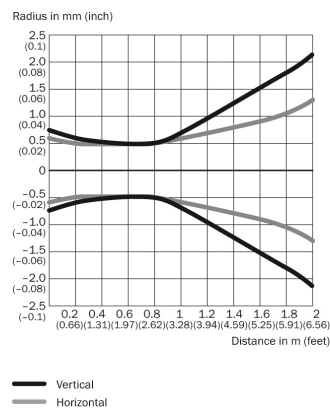
Sensing range diagram



Light spot size



Lichtfleckgröße (Detailansicht)



Australia

Phone +61 3 9457 0600
1800 334 802 – 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 sac@sick.com.br

Canada

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

Ceská 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 kundenservice@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 +972-4-6801000
E-Mail info@sick-sensors.com

Italia

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

Japan

Phone +81 (0)3 3358 1341
E-Mail support@sick.jp

Magyarország

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

Nederlands

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

Norge

Phone +47 67 81 50 00
E-Mail austefjord@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 admin@sicksgp.com.sg

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 8865 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