



Photoelectric sensors

WL11G-2B2531

Model Name > [WL11G-2B2531](#)

Part No. > [1041390](#)



At a glance

- Retro-reflective for detection of transparent objects
- Robust sensors for industrial use
- PinPoint technology is precise and fast-reacting for optimal detection of a very wide range of objects
- Space-saving plastic housing in chemically, thermally or mechanically-resistant designs
- Dovetail mounting - mounting holes and oblong holes for a very wide range of securing options
- All-round, easily visible status LEDs
- Simple sensitivity control via potentiometer

Your benefits

- Superior chip technology for reliable detection of objects, from PET bottles to transparent film. Effective suppression of optical interference factors from the industrial environment
- PinPoint technology for bright, small and precise light spot enabling fast and simple sensor alignment
- Precision switching characteristics and high standard of detection quality guaranteeing universal detection of objects
- User-friendly sensors, simple commissioning and installation and easily visible status LEDs
- The WL11G is designed for industrial use: its robust housing, resistance to high-pressure cleaners, cleaning agents and disinfectants ensure less downtime
- Uniform housing, mounting and connection systems mean minimal time is spent on mounting and installation
- Easily installed with SICK accessories



Features

Dimensions (W x H x D):	15.6 mm x 48.5 mm x 42 mm
Sensing range max.:	0 m ... 4 m ¹⁾
Sensing range:	0 m ... 4 m ²⁾
Light source:	LED ³⁾
Type of light:	visible red light
Wave length:	640 nm
Adjustment:	adjustable
Sensitivity adjustment:	Potentiometer, 11-turn
Sensor/detection principle:	Photoelectric retro-reflective sensor, autocollimation
Light spot (distance):	25 mm (1.5 m)

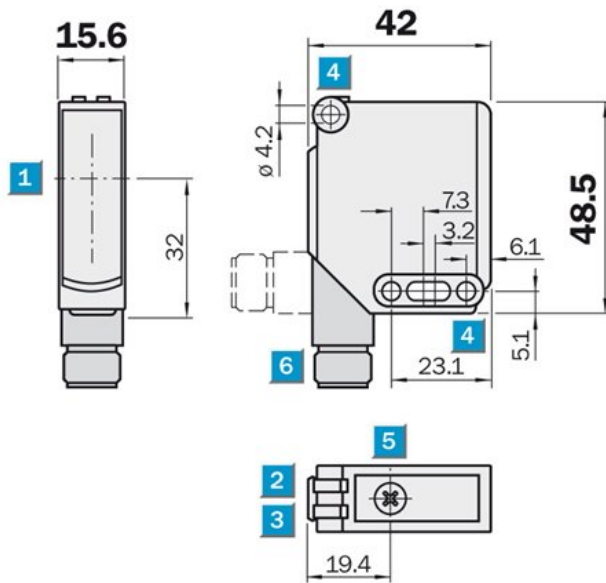
1) 2) PL80A 3) Average service life 100,000 h at Ta = +25 °C

Mechanics/electronics

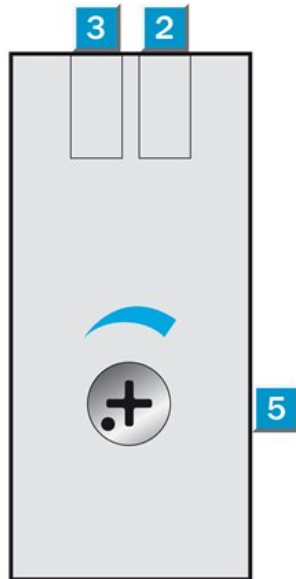
Enclosure rating:	IP 66 IP 67 IP 69K
Supply voltage:	10 V DC ... 30 V DC ¹⁾
Residual ripple:	≤ 5 Vpp ²⁾
Power consumption:	≤ 30 mA ³⁾
Switching output:	PNP, light/dark-switching NPN, 0 V oder unbeschaltet, hellschaltend
Output current I _{max.} :	100 mA
Response time:	≤ 330 μs ⁴⁾
Switching frequency:	1,500 Hz with light/dark ratio 1:1
Connection type:	Connector M12, 5-pin
Protection class:	II
Circuit protection:::	A C ^{5) 6) 7)} D
Weight:	120 g
Housing material:	ABS
Optics material:	PMMA
Ambient temperature, operation:	-30 °C ... 60 °C
Ambient temperature, storage:	-40 °C ... 75 °C
Polarisation filter:	✓
Signal voltage NPN HIGH/LOW:	approx. U _v / < 3 V
Signal voltage PNP HIGH/LOW:	U _v - 3 V / ca. 0 V
Attenuation along light beam:	> 8 %
Special Design:	for transparent objects
Angle of dispersion:	Ca. 1.5 °

¹⁾ Limit values, operation in short-circuit protected network max. 8 A ^{2) 3)} Without load ⁴⁾ Signal transit time with resistive load ⁵⁾ A = VS connections reverse-polarity protected ⁶⁾ C = interference suppression ⁷⁾ D = outputs overcurrent and short-circuit protected

Dimensional drawing

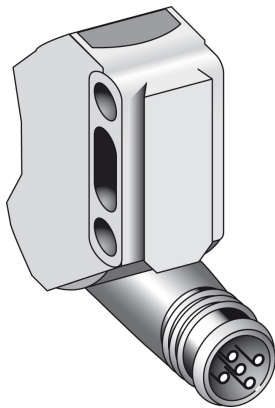


Adjustment possible

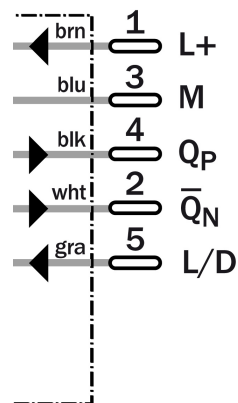


- [2] Status indicator LED, green: power on
- [3] Status indicator LED, yellow: Status of received light bea
- [5] Sensitivity adjustment

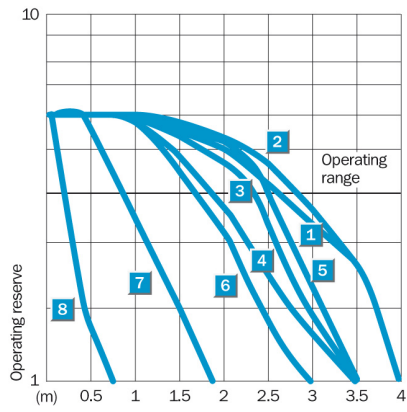
Connection type



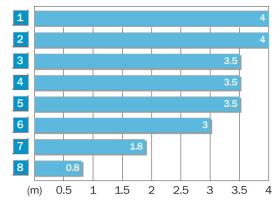
Connection diagram



Characteristic curve



Sensing range diagram



Reflector type	Scanning range max.
1 PL80A	0 ... 4.0 m
2 C110A	0 ... 4.0 m
3 P250F	0 ... 3.5 m
4 PL50A	0 ... 3.5 m
5 PL40A	0 ... 3.5 m
6 PL30A	0 ... 3.0 m
7 PL20A	0 ... 1.8 m
8 Reflective Tape Diamond Grade	0 ... 0.8 m

Australia

Phone +61 3 9497 4100
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(952) 941-6780
1 800-325-7425 – tollfree
E-Mail info@sickusa.com

Ceská Republika

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

China

Phone +852-2763 6966
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 +972-4-999-0590
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

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

Slovenija

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

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 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