

Model Name > [WL11G-2B2531](#)
Part No. > [1041390](#)



Illustration may differ

At a glance

- Retro-reflective for detection of clear material objects
- Rugged housing for industrial use
- PinPoint LED technology with a highly visible light spot
- Space-saving plastic housing in chemically, thermally or mechanically resistant designs
- Dovetail mounting - standard mounting holes and oblong holes
- Highly visible 360° status LEDs
- Simple sensitivity adjustment via potentiometer

Your benefits

- Superior ASIC ensures reliable detection of transparent objects
- PinPoint LED technology provides a bright, small and precise light spot that enables quick and easy sensor alignment
- Precise switching characteristics ensure high performance even in changing application conditions
- Highly visible 360° status LEDs provide fast and easy commissioning
- Rugged housing design withstands harsh environments, reducing downtime and maintenance effort
- Uniform housing, mounting and connection systems reduce mounting and installation time
- High immunity to optical interferences reduces false readings and downtime



Features

Sensor/detection principle:	Photoelectric retro-reflective sensor, autocollimation
Dimensions (W x H x D):	15.6 mm x 48.5 mm x 42 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0 m ... 4 m ¹⁾
Sensing range:	0 m ... 4 m ²⁾
Type of light:	Visible red light
Light source:	LED ³⁾
Wave length:	640 nm
Angle of dispersion:	Ca. 1.5 °
Adjustment:	Potentiometer, 11 turns
Light spot size (distance):	Ø 25 mm (1.5 m)

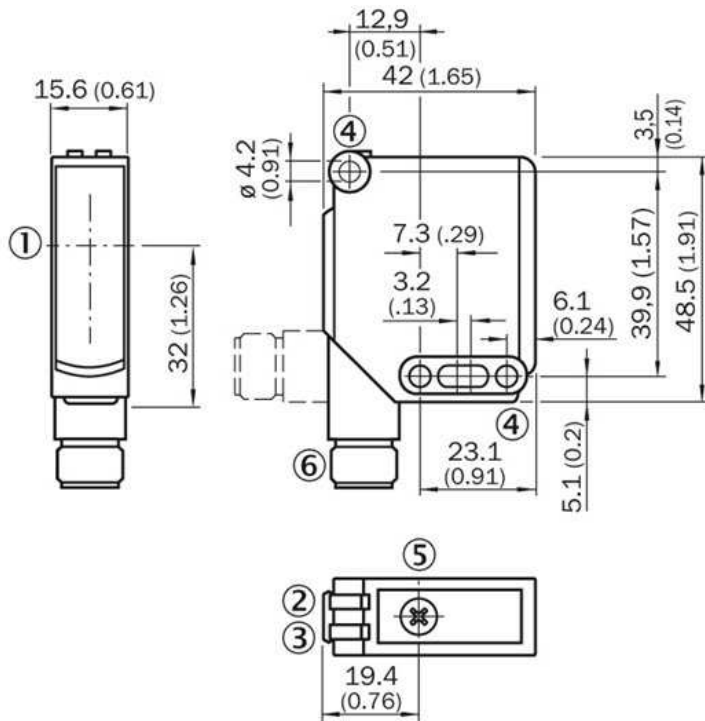
^{1) 2)} PL80A ³⁾ Average service life of 100,000 h at T_A = +25 °C

Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	≤ 5 Vpp ²⁾
Power consumption:	≤ 30 mA ³⁾
Output type:	NPN, PNP
Switching mode:	Light/dark switching
Switching mode selector:	0 V or not connected, light switching, Uv, dark switching, Selectable via L/D control wire
Signal voltage PNP HIGH/LOW:	Uv - 3 V / approx. 0 V
Signal voltage NPN HIGH/LOW:	Approx. Uv / < 3 V
Output current I _{max.} :	100 mA
Response time:	≤ 330 μ s ⁴⁾
Switching frequency:	1,500 Hz ⁵⁾
Attenuation along light beam:	> 8 %
Connection type:	Connector M12, 5-pin
Circuit protection:::	A, C, D ^{6) 7) 8)}
Protection class:	II
Weight:	120 g
Polarisation filter:	✓
Housing material:	ABS, Plastic
Optics material:	PMMA
Enclosure rating:	IP 66 IP 67 IP 69K
Special feature:	For transparent objects
Ambient operating temperature:	-30 °C ... 60 °C
Ambient storage temperature:	-40 °C ... 75 °C
UL File No.:	NRKH.E181493 & NRKH7.E181493

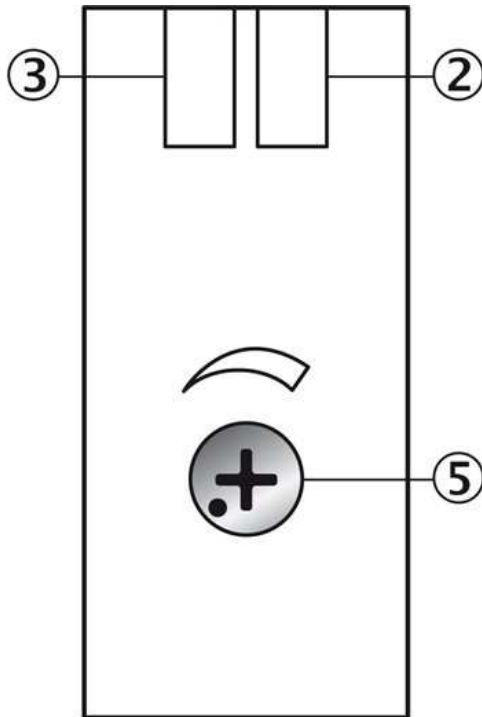
¹⁾ Limit values, operation in short-circuit protected network max. 8 A ²⁾ May not exceed or fall short of V_S tolerances ³⁾ Without load ⁴⁾ Signal transit time with resistive load ⁵⁾ With light/dark ratio 1:1 ⁶⁾ A = V_S connections reverse-polarity protected ⁷⁾ C = interference suppression ⁸⁾ D = outputs overcurrent and short-circuit protected

Dimensional drawing



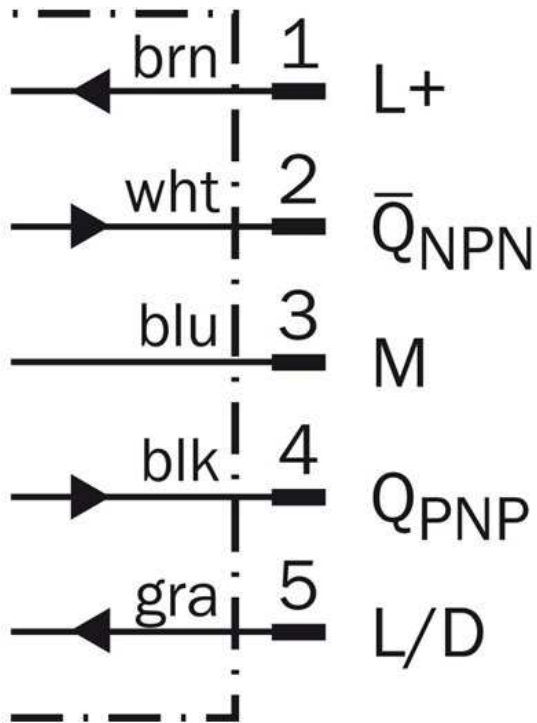
- |1| Center of optical axis
- |2| Status indicator LED green: power on
- |3| Status indicator LED, yellow: Status of received light beam
- |4| Mounting hole \varnothing 4.2 mm
- |5| Sensitivity adjustment: poti

Adjustments possible

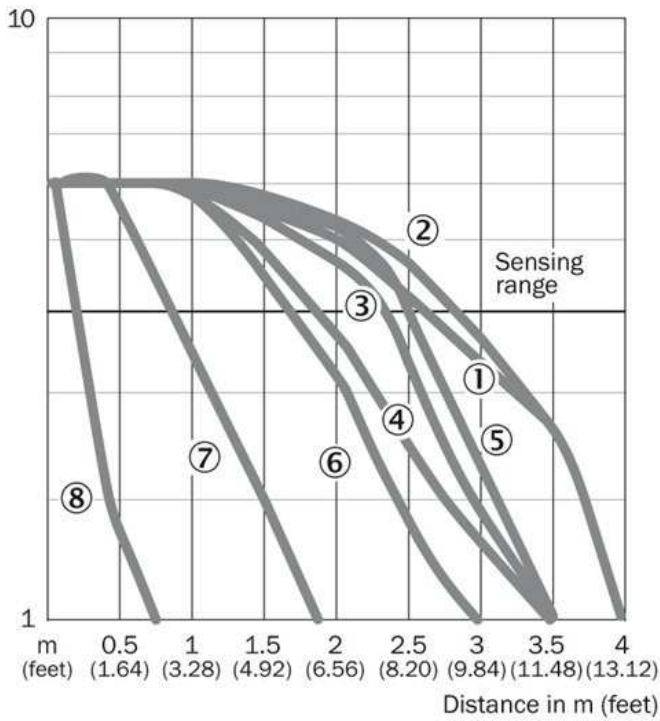


- |2| Status indicator LED green: power on
- |3| Status indicator LED, yellow: Status of received light beam
- |5| Sensitivity adjustment

Connection diagram

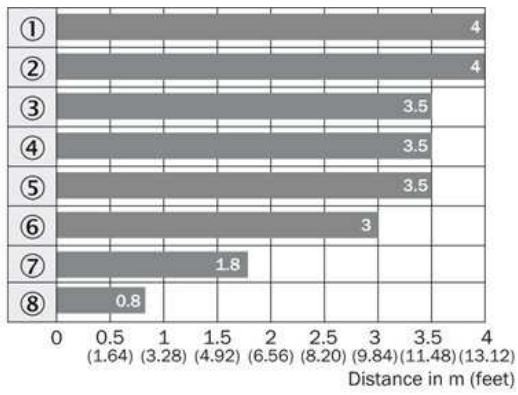


Characteristic curve



- [1] PL80A
- [2] C110A
- [3] P250F
- [4] PL50A
- [5] PL40A
- [6] PL30A
- [7] PL20A
- [8] Reflective tape Diamond Grade

Sensing range diagram



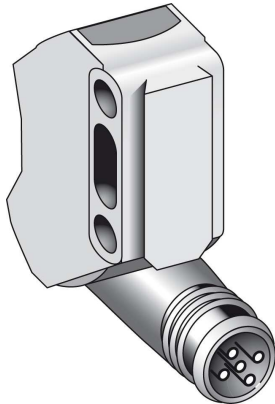
- |1| PL80A
- |2| C110A
- |3| P250F
- |4| PL50A
- |5| PL40A
- |6| PL30A
- |7| PL20A
- |8| Reflective tape Diamond Grade

■ Sensing range

Reflector type

- ① PL80A
- ② C110A
- ③ P250F
- ④ PL50A
- ⑤ PL40A
- ⑥ PL30A
- ⑦ PL20A
- ⑧ Reflective tape Diamond Grade

Connection type



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