



Photoelectric sensors  
W100-2, Photoelectric retro-reflective sensor

WL100-2P4239S09



**Type** > [WL100-2P4239S09](#)  
**Part No.** > [6052395](#)



*Illustration may differ*

**At a glance**

- Standard miniature housing with integrated M3 threaded mounting holes
- Bright emitted light spot and clearly visible indicator LEDs
- Light/dark switching and sensitivity adjustment possible
- Long sensing ranges of up to 7.2 m on PL80A reflector

**Your benefits**

- Long sensing ranges of up to 7.2 m thanks to a high functional reserve
- Straightforward alignment thanks to bright light spot and clearly visible indicator LEDs
- Compatibility with a number of common mounting systems due to standard housing with 1-inch hole spacing and integrated M3 threaded mounting hole
- Highly reliable and durable despite optical interference and mechanical loads



**Features**

Sensor/detection principle:	Photoelectric retro-reflective sensor
Dimensions (W x H x D):	11 mm x 31 mm x 20 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0.01 m ... 6.3 m <sup>1)</sup>
Sensing range:	0.01 m ... 5 m <sup>2)</sup>
Type of light:	Visible red light
Light source:	LED <sup>3)</sup>
Wave length:	632 nm
Special features:	Higher switching frequency, Switching mode selector via cable
Light spot size (distance):	Ø 280 mm (4 m)

<sup>1) 2)</sup> PL80A <sup>3)</sup> Average service life: 100,000 h at T<sub>U</sub> = +25 °C

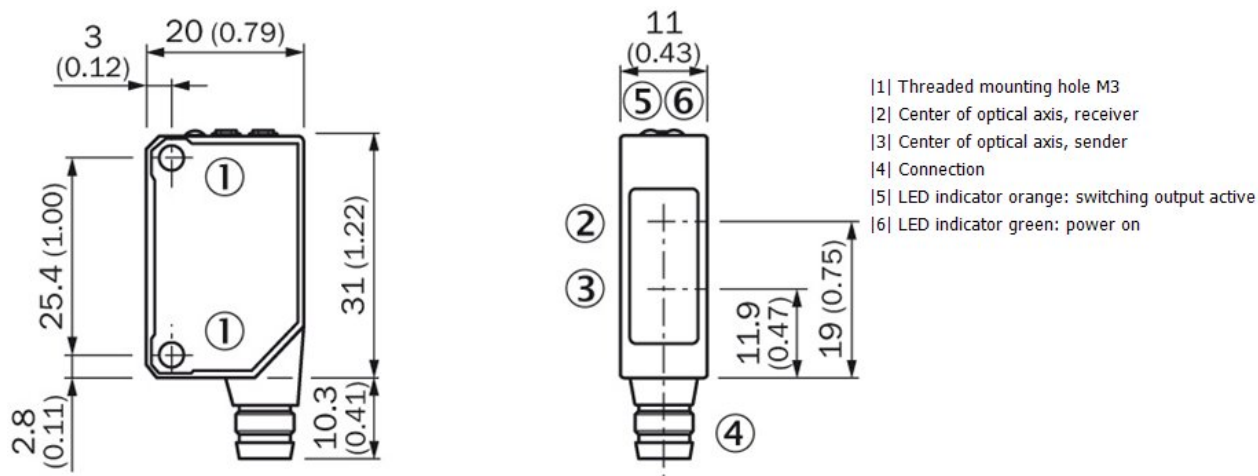
**Mechanics/electronics**

Supply voltage:	10 V DC ... 30 V DC <sup>1)</sup>
Ripple:	± 10 % <sup>2)</sup>
Current consumption:	≤ 30 mA <sup>3)</sup>
Output type:	PNP
Switching mode:	Dark switching
Switching mode selector:	Via cable
Output current I <sub>max.</sub> :	100 mA
Response time:	≤ 0.25 ms <sup>4)</sup>

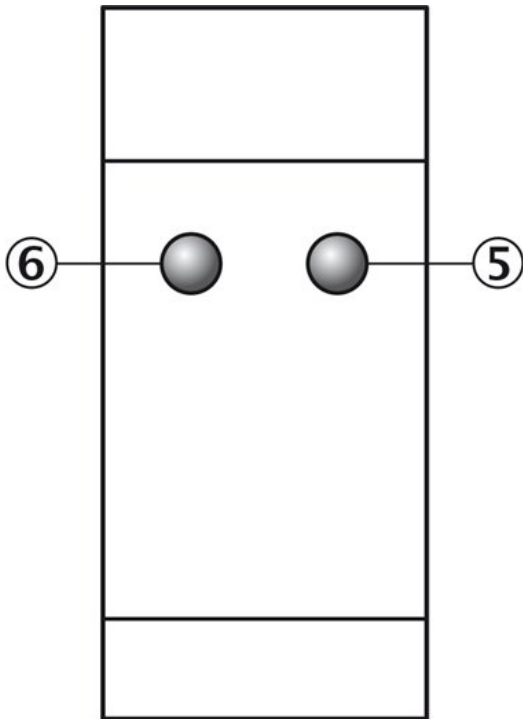
Switching frequency:	2,000 Hz <sup>5)</sup>
Connection type:	Connector M8, 4-pin
Circuit protection:::	A, B, D <sup>6) 7) 8)</sup>
Protection class:	III
Polarisation filter:	✓
Special device:	✓
Optics material:	PMMA
Enclosure rating:	IP 67
Ambient operating temperature:	-25 °C ... +55 °C
Ambient storage temperature:	-40 °C ... +70 °C
Signal voltage PNP HIGH/LOW:	UV - 1,8 V / ca. 0 V
Housing material:	ABS/PC/POM, Plastic

1) Limit values 2) May not exceed or fall below U<sub>V</sub> tolerances 3) Without load 4) Signal transit time with resistive load 5) With light/dark ratio 1:1 6) A = V<sub>S</sub>  
connections reverse-polarity protected 7) B = output reverse-polarity protected 8) D = outputs overcurrent and short-circuit protected

### Dimensional drawing

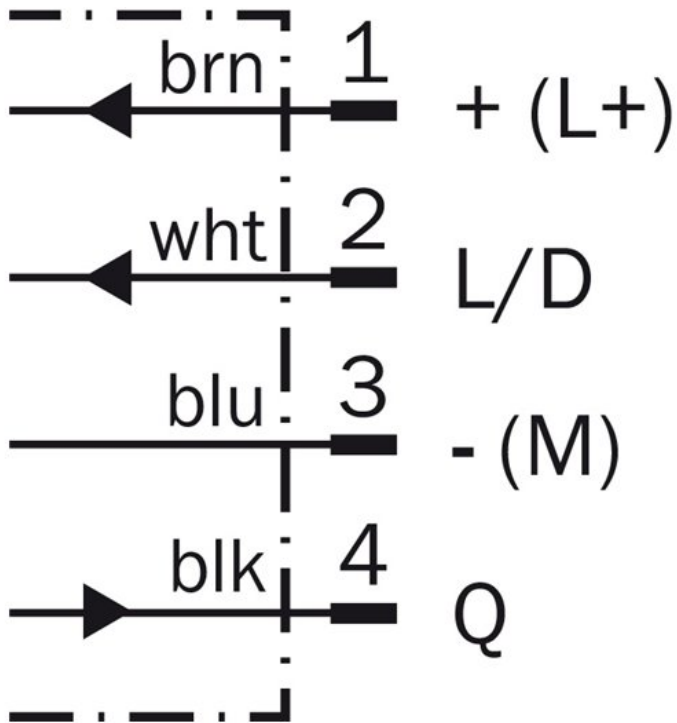


Adjustments possible

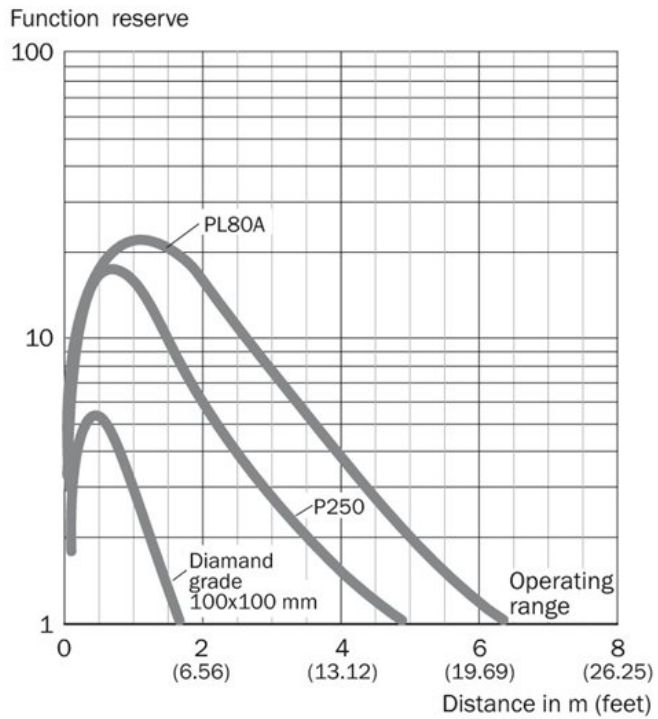


|5| Orange LED indicator : switching output active  
|6| LED indicator green: stability indicator

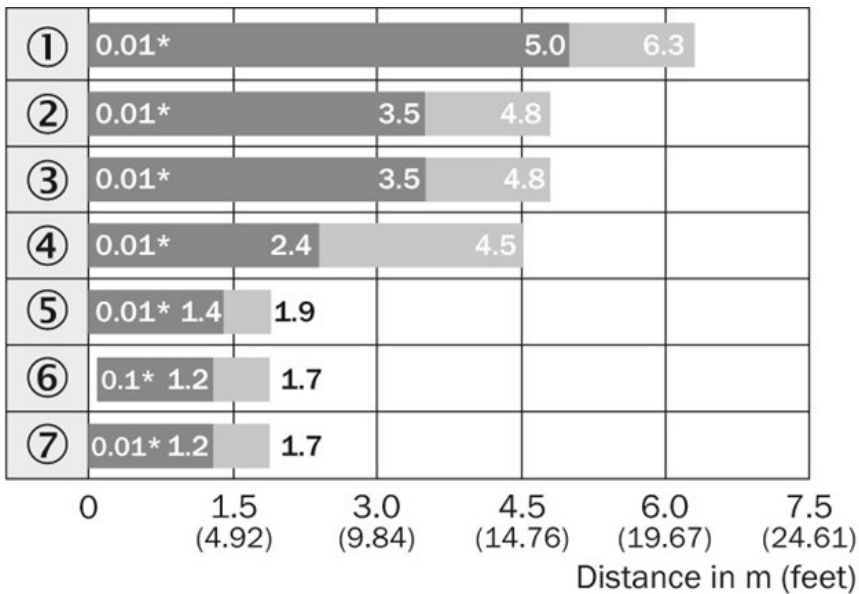
Connection diagram



## Operating reserve



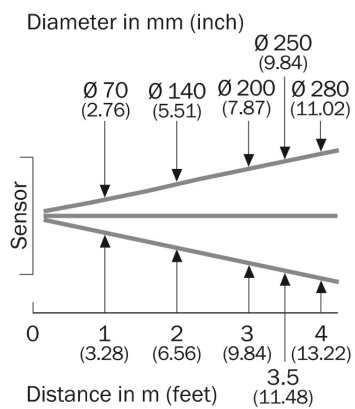
## Sensing range diagram



■ Sensing range      ■ Sensing range max.

\*Close-up range at maximum sensitivity

## Light spot size



**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](http://www.sick.com)