



Photoelectric sensors  
W9-3 Glass, Photoelectric retro-reflective sensor,  
autocollimation

WL9M4G-3P2434



**Model Name** > [WL9M4G-3P2434](#)  
**Part No.** > [1067619](#)



*Illustration may differ*

**At a glance**

- High-performance retro-reflective clear material sensor in ultra-rugged VISTAL™ housing
- Best-in-class optical performance for transparent object detection
- Continuous threshold adaption
- PinPoint LED for highly visible and precise light spot
- Variable mounting with M4 hole pattern
- Wide range of connection options

**Your benefits**

- Rugged VISTAL™ housing provides reliable installation and operation
- Reliable object detection in all situations using best-in-class performance
- Quick and easy alignment with reliable detection due to the highly visible PinPoint light spot
- M4 slotted hole mounting for multiple mounting possibilities
- One housing with a wide range of options makes machine integration easy
- Variety of accessories for simple mounting



**Features**

|                                  |  |
|----------------------------------|--|
| Sensor/detection principle:      | Photoelectric retro-reflective sensor, autocollimation |
| Dimensions (W x H x D):          | 12.2 mm x 52.2 mm x 23.6 mm                            |
| Housing design (light emission): | Rectangular  |
| Mounting hole:                   | M4   |
| Sensing range max.:              | 0 m ... 5 m <sup>1)</sup>                              |
| Sensing range:                   | 0 m ... 3 m <sup>2)</sup>                              |
| Type of light:                   | Visible red light                                      |
| Light source:                    | PinPoint LED <sup>3)</sup>                             |
| Teach-in:                        | Single teach-in button                                 |
| Adjustment:                      | Single teach-in button                                 |
| Light spot size (distance):      | Ø 45 mm (1.5 m)  |
| Continuous threshold adaption:   | ✓  |

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

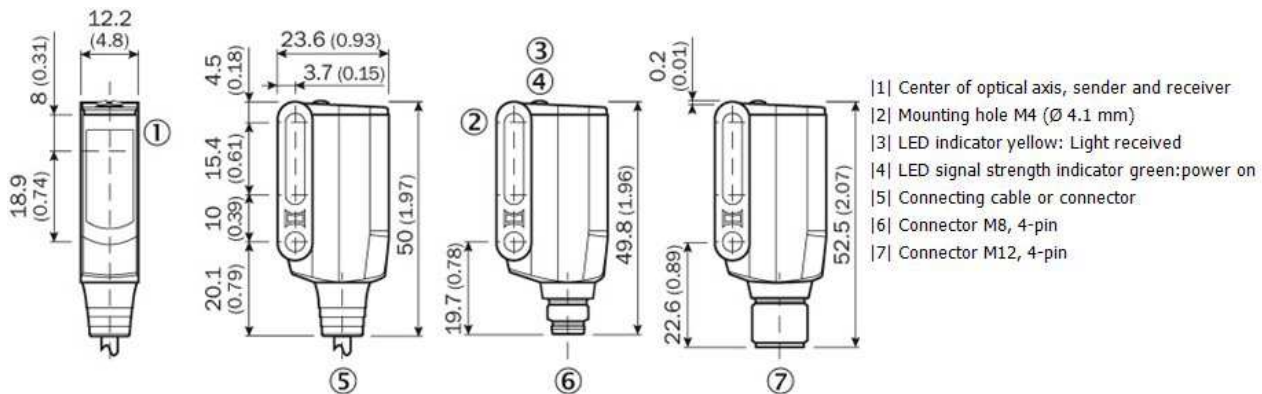
**Mechanics/electronics**

|                  |                                   |
|------------------|-----------------------------------|
| Supply voltage:  | 10 V DC ... 30 V DC <sup>1)</sup> |
| Residual ripple: | < 5 Vpp <sup>2)</sup>             |

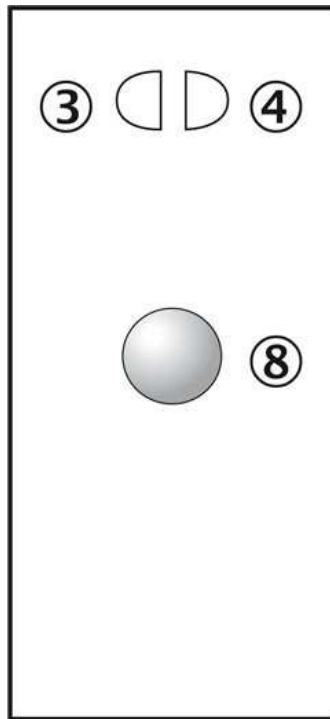
|                                   |                               |
|-----------------------------------|-------------------------------|
| Power consumption:                | ≤ 20 mA <sup>3)</sup>         |
| Output type:                      | PNP <sup>4)</sup>             |
| Switching mode:                   | Light switching <sup>5)</sup> |
| Output current I <sub>max</sub> : | ≤ 100 mA <sup>6)</sup>        |
| Response time:                    | < 0.5 ms <sup>7)</sup>        |
| Switching frequency:              | ± 1,000 Hz <sup>8)</sup>      |
| Electrical connection:            | Connector M12, 4-pin          |
| Circuit protection:::             | A, B, C <sup>9) 10) 11)</sup> |
| Protection class:                 | III                           |
| Weight:                           | 13 g                          |
| Polarisation filter:              | ✓                             |
| Optics material:                  | PMMA                          |
| Enclosure rating:                 | IP 66<br>IP 67<br>IP 69K      |
| Special feature:                  | For transparent objects       |
| Ambient operating temperature:    | -40 °C ... +60 °C             |
| Ambient storage temperature:      | -40 °C ... +75 °C             |
| UL File No.:                      | NRKH.E181493                  |
| Housing material:                 | Plastic, VISTAL               |

1) Limit values, operation in short-circuit protected network max. 8 A<sup>2)</sup> May not exceed or fall short of V<sub>S</sub> tolerances<sup>3)</sup> Without load<sup>4) 5)</sup> Q = light-switching<sup>6)</sup> As of Tu 50 °C, a max. load current I<sub>max</sub> = 50 mA is permitted<sup>7)</sup> Signal transit time with resistive load<sup>8)</sup> With light/dark ratio 1:1<sup>9)</sup> A = V<sub>S</sub> connections reverse-polarity protected<sup>10)</sup> B = inputs and output reverse-polarity protected<sup>11)</sup> C = interference suppression

## Dimensional drawing

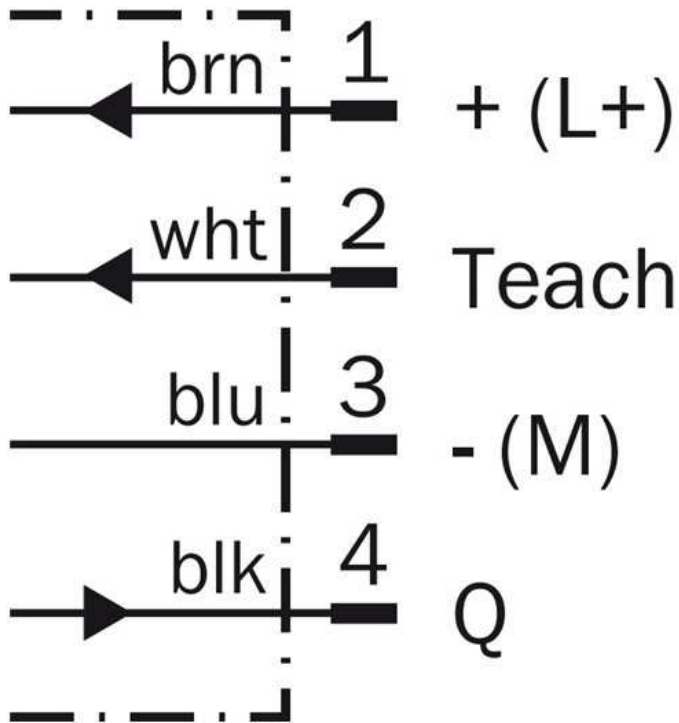


Adjustments possible

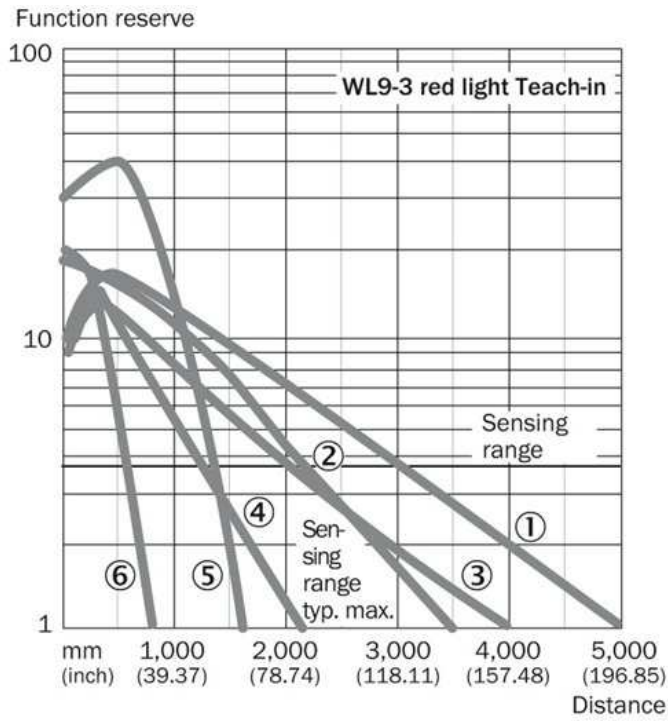


- |3| LED indicator yellow: Light received
- |4| LED signal strength indicator green:power on
- |8| Teach-in button

Connection diagram

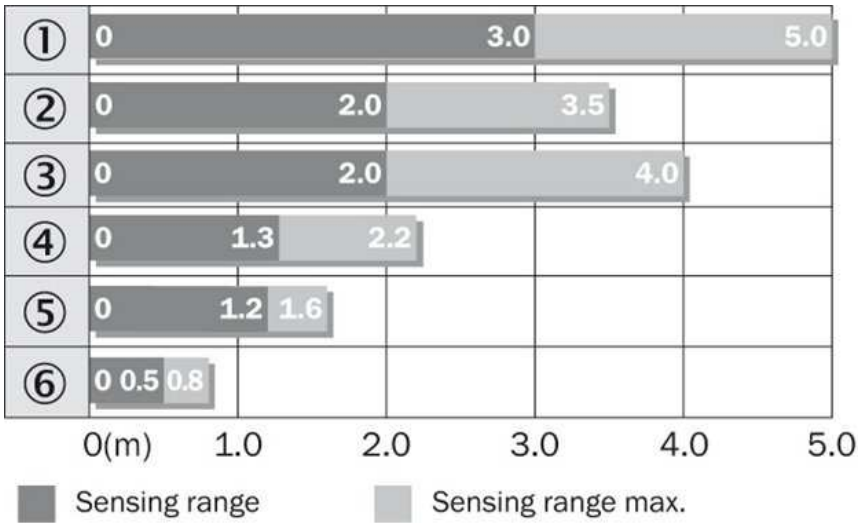


**Characteristic curve**



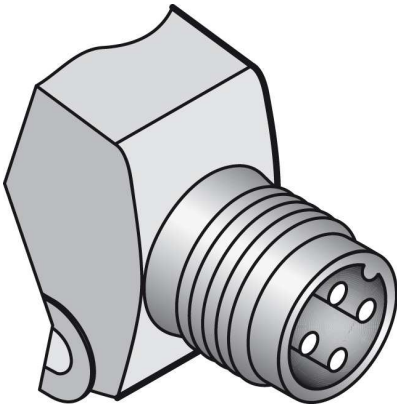
- [1] PL80A
- [2] P250F
- [3] PL40A
- [4] PL20F
- [5] PL10F
- [6] REF-IRF-56

**Sensing range diagram**

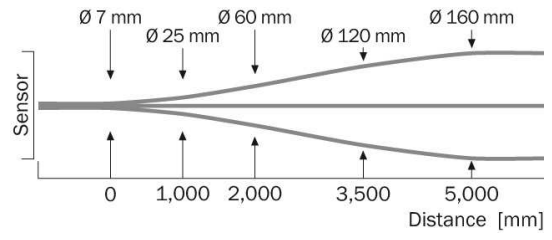


- [1] PL80A
- [2] P250F
- [3] PL40A
- [4] PL20F
- [5] PL10F
- [6] REF-IRF-56

### Connection type



### 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)