



Photoelectric sensors  
W11-2, Photoelectric retro-reflective sensor,  
Standard optics

WL11-2P2430



**Model Name** > [WL11-2P2430](#)  
**Part No.** > [1041385](#)



Illustration may differ

**At a glance**

- Retro-reflective with standard lens principle
- Rugged housing for industrial use
- PinPoint LED technology with 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
- Optional sensing range adjustment via teach-in pushbutton
- Operating distance up to 10 m

**Your benefits**

- Custom ASIC provides reliable object detection
- High immunity to optical interference reduces false readings and downtime
- 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
- Rugged housing design withstands harsh environments, reducing downtime and maintenance effort
- Highly visible 360° status LEDs provide quick and easy setup without additional personnel or costly training
- Easy installation using SICK accessories



**Features**

|                                  |  |
|----------------------------------|--|
| Sensor/detection principle:      | Photoelectric retro-reflective sensor, Standard optics |
| Dimensions (W x H x D):          | 15.6 mm x 48.5 mm x 42 mm                              |
| Housing design (light emission): | Rectangular  |
| Sensing range max.:              | 0.15 m ... 10 m <sup>1)</sup>                          |
| Sensing range:                   | 0.15 m ... 8 m <sup>2)</sup>                           |
| Type of light:                   | Visible red light                                      |
| Light source:                    | LED <sup>3)</sup>                                      |
| Wave length:                     | 640 nm   |
| Angle of dispersion:             | Ca. 2.2 °  |
| Light spot size (distance):      | Ø 50 mm (3 m)  |

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

## Mechanics/electronics

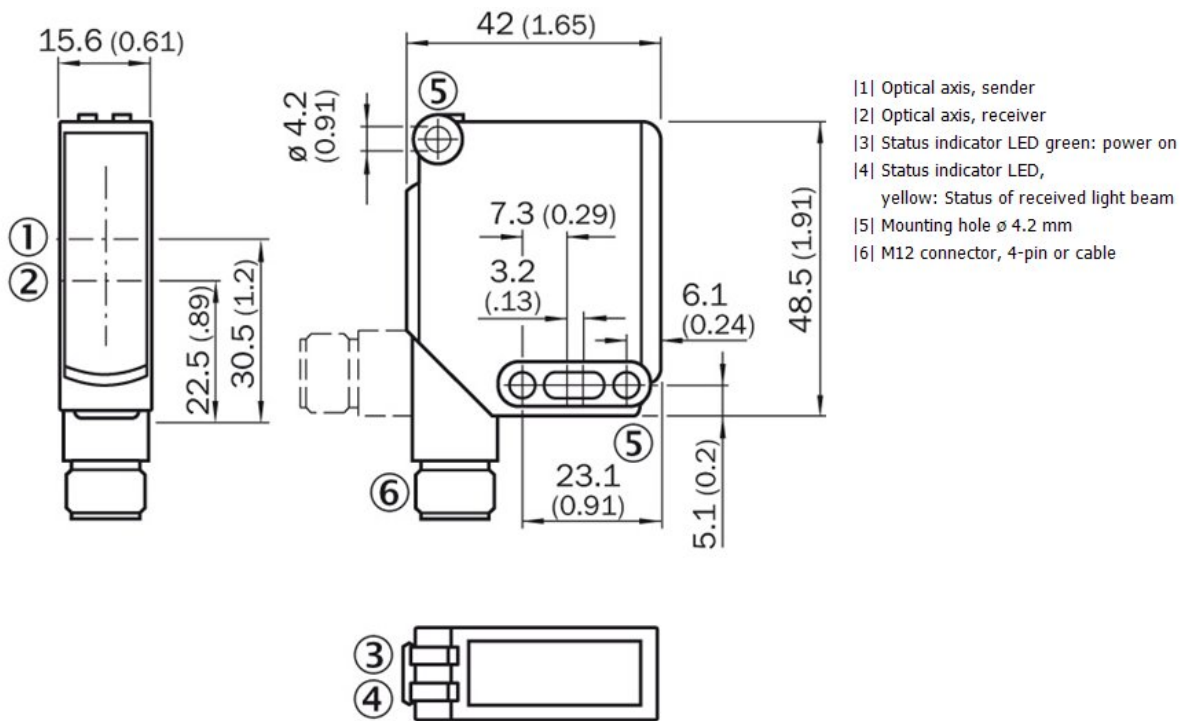
---

|                                    |                                      |
|------------------------------------|--------------------------------------|
| Supply voltage:                    | 10 V DC ... 30 V DC <sup>1)</sup>    |
| Power consumption:                 | ≤ 30 mA <sup>2)</sup>                |
| Output type:                       | PNP                                  |
| Output function:                   | Complementary                        |
| Switching mode:                    | Light/dark-switching                 |
| Signal voltage PNP HIGH/LOW:       | U <sub>v</sub> - 2.5 V / approx. 0 V |
| Output current I <sub>max.</sub> : | 100 mA                               |
| Response time:                     | ≤ 2.5 ms <sup>3)</sup>               |
| Switching frequency:               | 200 Hz <sup>4)</sup>                 |
| Connection type:                   | Connector M12, 4-pin                 |
| Circuit protection:::              | A, C, D <sup>5) 6) 7)</sup>          |
| Protection class:                  | II <sup>8)</sup>                     |
| Weight:                            | 120 g                                |
| Polarisation filter:               | ✓                                    |
| Special device:                    | -                                    |
| Housing material:                  | ABS, Plastic                         |
| Optics material:                   | PMMA                                 |
| Enclosure rating:                  | IP 66<br>IP 67<br>IP 69K             |
| Ambient operating temperature:     | -30 °C ... 60 °C                     |
| Ambient storage temperature:       | -40 °C ... 75 °C                     |
| UL File No.:                       | NRKH.E181493 & NRKH7.E181493         |

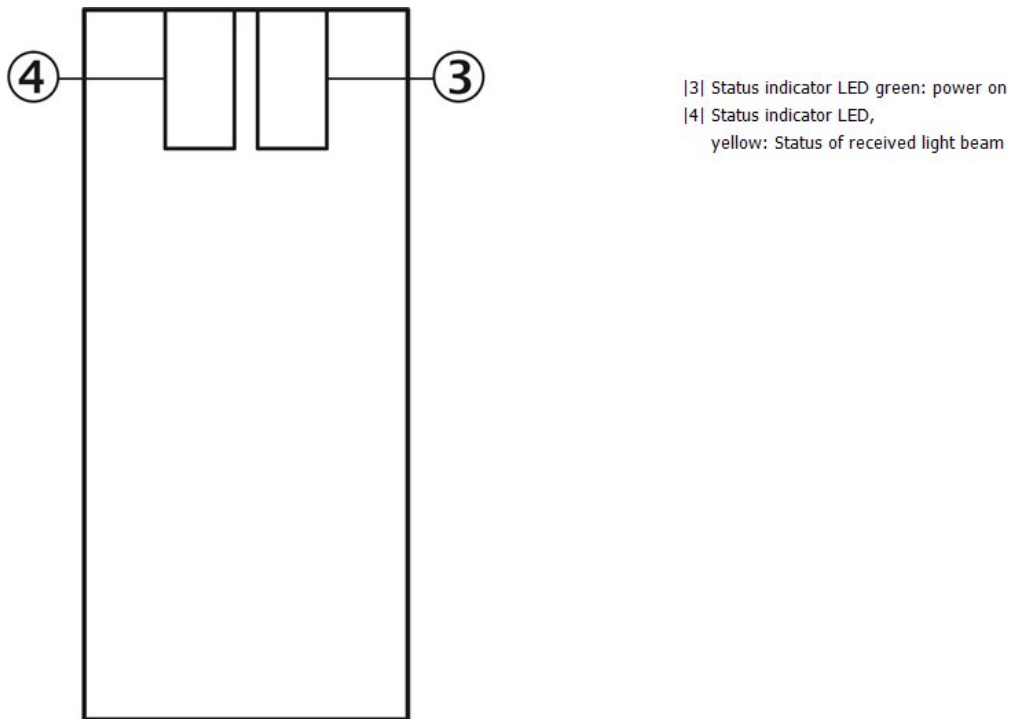
May not exceed or fall short of V<sub>S</sub> tolerances;

<sup>1)</sup> Limit values, operation in short-circuit protected network max. 8 A <sup>2)</sup> Without load <sup>3)</sup> Signal transit time with resistive load <sup>4)</sup> With light/dark ratio 1:1 <sup>5)</sup> A = V<sub>S</sub>  
<sup>6)</sup> C = interference suppression <sup>7)</sup> D = outputs overcurrent and short-circuit protected <sup>8)</sup> Reference voltage DC 50 V

**Dimensional drawing**



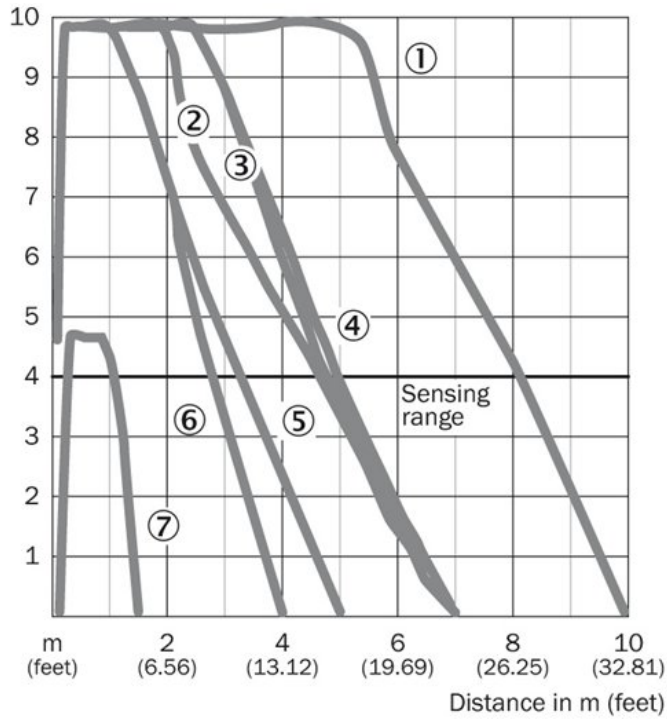
**Adjustments possible**



Connection diagram

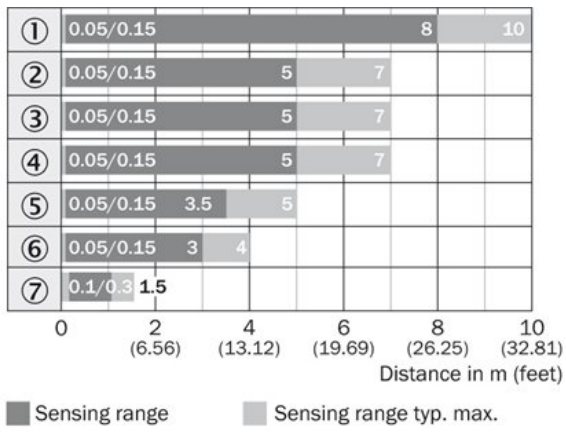


Characteristic curve



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

## Sensing range diagram

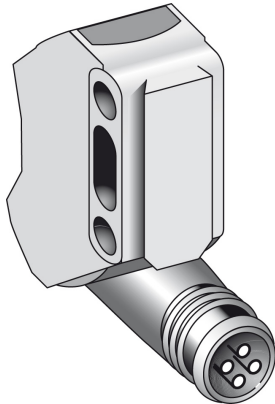


- |1| PL80A
- |2| C110A
- |3| PL50A
- |4| PL40A
- |5| PL30A
- |6| PL20A
- |7| Reflective tape Diamond Grade

### Reflector type

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

### Connection type



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