



# WL12-2N190

PRODUCT PORTFOLIO

**SICK**  
Sensor Intelligence.



Illustration may differ



## Ordering information

Type	Part no.
WL12-2N190	1016090

Other models and accessories → [www.sick.com/](http://www.sick.com/)

## Detailed technical data

### Features

<b>Sensor/ detection principle</b>	Photoelectric retro-reflective sensor
<b>Dimensions (W x H x D)</b>	15 mm x 49 mm x 41.5 mm
<b>Housing design (light emission)</b>	Rectangular
<b>Sensing range max.</b>	0 m ... 2 m <sup>1)</sup>
<b>Sensing range</b>	0 m ... 1 m <sup>1)</sup>
<b>Type of light</b>	Visible red light
<b>Light source</b>	LED
<b>Adjustment</b>	Potentiometer

<sup>1)</sup> Reflector PL80A.

### Mechanics/electronics

<b>Supply voltage</b>	10 V DC ... 30 V DC
<b>Ripple</b>	≤ 5 V <sub>pp</sub>
<b>Power consumption</b>	≤ 40 mA <sup>1)</sup>
<b>Switching output</b>	NPN
<b>Switching mode</b>	Light/dark switching
<b>Response time</b>	≤ 330 μs <sup>2)</sup>
<b>Connection type</b>	Cable, 2 m <sup>3)</sup>
<b>Conductor cross-section</b>	0.25 mm <sup>2</sup>
<b>Housing material</b>	Metal, Zinc diecast Metal, Zinc diecast

<sup>1)</sup> Without load.

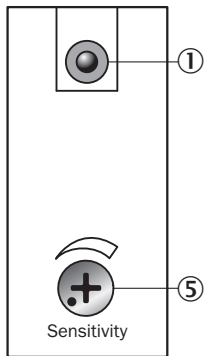
<sup>2)</sup> Signal transit time with resistive load.

<sup>3)</sup> Do not bend below 0 °C.

<b>Optics material</b>	Plastic, PMMA
<b>Enclosure rating</b>	IP67
<b>Ambient operating temperature</b>	-40 °C ... +60 °C
<b>Ambient storage temperature</b>	-40 °C ... +75 °C
<b>UL File No.</b>	NRKH.E181493 & NRKH7.E181493

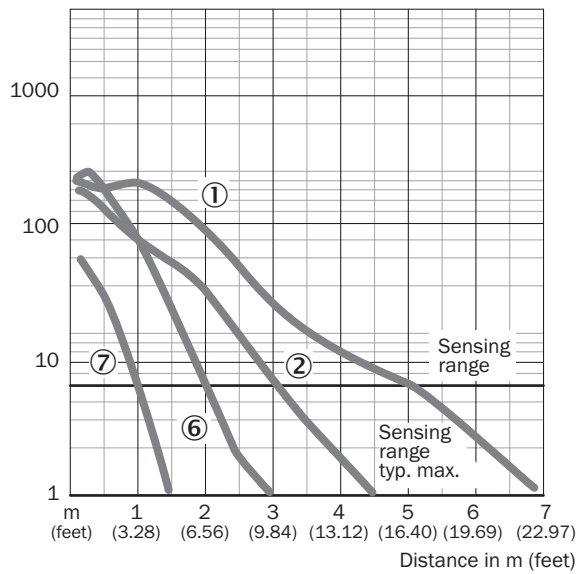
- 1) Without load.
- 2) Signal transit time with resistive load.
- 3) Do not bend below 0 °C.

### Adjustments possible

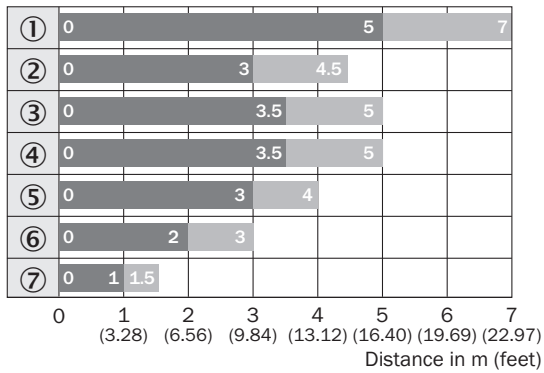


- ① Receive indicator
- ⑤ Sensitivity control

### Characteristic curve



Sensing range diagram

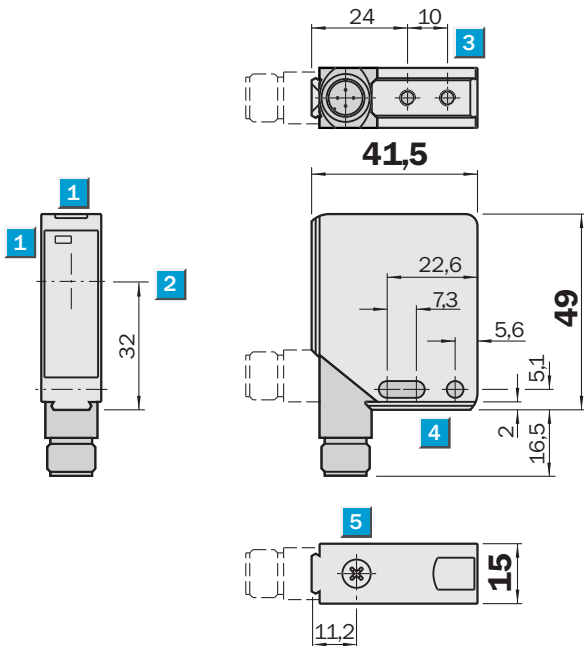


■ Sensing range    ■ Sensing range typ. max.

**Reflector type**

- ① PL80A
- ② C110
- ③ PL50A
- ④ PL40A
- ⑤ PL30A
- ⑥ PL20A
- ⑦ Reflective tape

Dimensional drawing (Dimensions in mm (inch))



- ① LED signal strength indicator
- ② Center of optical axis
- ③ M4 threaded mounting hole – 4 mm deep
- ④ Mounting hole, Ø 4.2 mm
- ⑤ Sensitivity control

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)