



## W11-2

High-performance photoelectric sensors with application flexibility in industrial environments

**SICK**  
Sensor Intelligence.



## Technical data overview

<b>Dimensions (W x H x D)</b>	15.6 mm x 48.5 mm x 42 mm
<b>Functional principle detail</b>	Background suppression Foreground suppression Energetic With minimum distance to reflector (dual lens system) (depending on type)
<b>Light source</b>	LED / PinPoint LED (depending on type)
<b>Type of light</b>	Visible red light
<b>Enclosure rating</b>	IP66 IP67 IP69K IP68 (depending on type)
<b>Housing material</b>	Plastic
<b>Adjustment</b>	Potentiometer None Teach-in button (depending on type)

## Product description

The W11-2 photoelectric sensor family offers a complete technology with high-performance sensing capabilities for a wide range of automation applications. Whether for applications in material handling or packaging, the W11-2 offers optimum performance in a small, rugged housing. These easy-to-use sensors provide dependable object detection and high reliability in industrial environments.

## At a glance

- Uniform housing, mounting and connection systems
- Rugged sensors for industrial use
- PinPoint LED technology provides highly visible light spot
- Space-saving plastic housing in chemically, thermally or mechanically resistant designs
- Dovetail mounting – mounting holes and oblong holes
- Highly visible 360° status LEDs

## Your benefits

- Reliable object detection due to superior ASIC technology with a high immunity to ambient light
- PinPoint 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 quick and easy setup
- Compact and rugged housing design easily fits in tight spaces
- Uniform housing, mounting and connection systems simplify installation
- Versatile mounting options, including dovetail, side mounting and standard mounting holes enable quick installation

## Ordering information

Other models and accessories → [www.sick.com/W11-2](http://www.sick.com/W11-2)

- **Functional principle:** Photoelectric proximity sensor
- **Functional principle detail:** Background suppression
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light/dark switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
20 mm ... 350 mm	NPN	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	WTB11-2N1131	1041379
			Male connector M12, 4-pin	WTB11-2N2431	1041378
	PNP	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	WTB11-2P1131	1041377
			Male connector M12, 4-pin	WTB11-2P2431	1041376

<sup>1)</sup> Do not bend below 0 °C.

- **Functional principle:** Photoelectric proximity sensor
- **Functional principle detail:** Background suppression
- **Light source:** PinPoint LED
- **Voltage type:** DC
- **Switching mode:** Light/dark switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
150 mm	PNP	None	Male connector M12, 4-pin	WTB11-2P2430S03	1047923
30 mm ... 1,100 mm	NPN	Potentiometer	Male connector M12, 4-pin	WTB11-2N2461	1051818
				WTB11-2K2461	1051075
	PNP	Potentiometer	Male connector M12, 4-pin	WTB11-2P2461	1044442
				WTB11-2P2461P04	1046950

- **Functional principle:** Photoelectric proximity sensor
- **Functional principle detail:** Foreground suppression
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light/dark switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
35 mm ... 350 mm	PNP	Potentiometer	Male connector M12, 4-pin	WTF11-2P2431	1041380

- **Functional principle:** Photoelectric proximity sensor
- **Functional principle detail:** Energetic
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light/dark switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
40 mm ... 1,000 mm	NPN	Teach-in button	Cable, 4-wire, 2 m <sup>1)</sup>	WTE11-2N1132	1041384
			Male connector M12, 4-pin	WTE11-2N2432	1041383
	PNP	Teach-in button	Cable, 4-wire, 2 m <sup>1)</sup>	WTE11-2P1132	1041382
			Male connector M12, 4-pin	WTE11-2P2432	1041381

<sup>1)</sup> Do not bend below 0 °C.

- **Functional principle:** Photoelectric retro-reflective sensor
- **Functional principle detail:** With minimum distance to reflector (dual lens system)
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light/dark switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0.05 m ... 3 m	PNP	None	Male connector M12, 4-pin	WL11-2P2430S05	1056080
0.15 m ... 10 m	NPN	None	Cable, 4-wire, 2 m <sup>1)</sup>	WL11-2N1130	1041388
			Male connector M12, 4-pin	WL11-2N2430	1041387
	PNP	Teach-in button	Male connector M12, 4-pin	WL11-2K2432	1054233
				WL11-2P2432	1048542
				WL11-2P2432P07	1050674
		None	Cable, 4-wire, 2 m <sup>1)</sup>	WL11-2P1130	1041386
				WL11-2P2430	1041385
				WL11-2P2430P02	1046468
				WL11-2P2430P03	1046949
				WL11-2P2440	1041389

<sup>1)</sup> Do not bend below 0 °C.

- **Functional principle:** Photoelectric retro-reflective sensor
- **Functional principle detail:** With minimum distance to reflector (dual lens system)
- **Light source:** LED
- **Voltage type:** DC
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0.15 m ... 10 m	PNP	Teach-in button	Male connector M12, 4-pin	WL11-2K2432P08	1054232

- **Functional principle:** Photoelectric retro-reflective sensor
- **Functional principle detail:** With minimum distance to reflector (dual lens system)
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0.05 m ... 10 m	PNP	None	Male connector M12, 4-pin	WL11-2P2430S02	1047578
0.15 m ... 10 m	PNP	None	Male connector M12, 4-pin	WL11-2P2430P05	1047579

- **Functional principle:** Photoelectric retro-reflective sensor
- **Functional principle detail:** With minimum distance to reflector (dual lens system)
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Dark switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0.05 m ... 10 m	PNP	None	Male connector M12, 4-pin	WL11-2F2430S04	1048753

- **Functional principle:** Through-beam photoelectric sensor
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light/dark switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0 m ... 1.7 m	PNP	None	Male connector M12	WSE11-2P2430S05	1055057
0 m ... 20 m	NPN	None	Cable, 4-wire, 2 m <sup>1)</sup>	WSE11-2N1130	1057574
					1041397
			Male connector M12, 4-pin	WSE11-2N2430	1057573
					1041396
	PNP	None	Cable, 4-wire, 2 m <sup>1)</sup>	WSE11-2P1130	1057572
					1041395
			Male connector M12, 4-pin	WSE11-2K2430	1057575
					1051336
				WSE11-2P2430	1057571
					1041394

<sup>1)</sup> Do not bend below 0 °C.

## 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)