



## W15

Improve performance and reduce downtime with W15 sensors

PHOTOELECTRIC SENSORS

**SICK**  
Sensor Intelligence.



### Technical data overview

<b>Dimensions (W x H x D)</b>	16.2 mm x 48.5 mm x 31.9 mm 16.2 mm x 45.2 mm x 31.9 mm 16 mm x 48.5 mm x 31.9 mm
<b>Light source</b>	PinPoint LED / LED (depending on type)
<b>Type of light</b>	Visible red light / Infrared light (depending on type)
<b>Enclosure rating</b>	IP66 / IP67 / IP67 (depending on type)
<b>Housing material</b>	Plastic
<b>Adjustment</b>	Potentiometer / none (depending on type)

### Product description

The high-performance W15 photoelectric sensor family is flexible and versatile, combining a modern industrial design with SICK technology for an optimum application solution.

These sensors use SICK's third generation custom ASIC that incorporates OES3 technology to provide exceptional background suppression at an extended range. The W15 series includes four different sensing modes, including the WTB15, WTE15, WL15 and WSE15 to provide a complete product offering.

An attractive feature of this series is its flexible mounting options. The W15 features 18 mm front mount and side mount through holes. The M18 front mount enables the sensor to be flush mounted with a snap ring, which prevents the disruption of product flow in conveyor systems.

### At a glance

- M18 front mount using plastic nut or snap ring, side assembly with 24.1 mm through holes
- Flush mounting possible using the snap ring
- Transparent back cover
- Best-in-class background suppression and red PinPoint LED
- High immunity to ambient light
- Highly visible LED indicators

### Your benefits

- Completely compatible with many competitor models, making it easy install and commission
- Flush mounting reduces setup time and prevents obstructions to material flow on conveyor systems
- Clearly visible LED indicators reduce setup time and simplify troubleshooting
- Reliable detection due to best-in-class background suppression that ignores stray background reflections, detects multi-colored/shiny objects and provides high immunity to ambient light
- Customer-specific options reduce material and labor costs

## Ordering information

Other models and accessories → [www.sick.com/W15](http://www.sick.com/W15)

- **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.
4 mm ... 100 mm	PNP	None	Male connector M12, 4-pin	WTB15-P2430S94	1067703
4 mm ... 150 mm	PNP	None	Male connector M12, 4-pin	WTB15-P2430S96	1068015
4 mm ... 200 mm	NPN	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	WTB15-N1131	1046283
			Male connector M12, 4-pin	WTB15-N2431	1044306
				WTB15-N2431S01	1048508
	PNP	Potentiometer	Male connector M8, 4-pin	WTB15-N2231	1050027
			Cable, 4-wire, 2 m <sup>1)</sup>	WTB15-P1131	1046284
				Male connector M12, 4-pin	WTB15-P2431
Male connector M8, 4-pin	WTB15-P2231	1050026			

<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 switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
4 mm ... 100 mm	PNP, NPN	None	Male connector M12, 4-pin	WTB15-B2430S94	1067929
4 mm ... 150 mm	PNP, NPN	None	Male connector M12, 4-pin	WTB15-B2430S96	1067930
4 mm ... 200 mm	PNP, NPN	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	WTB15-B1131	1046282
			Male connector M12, 4-pin	WTB15-B2431	1043326
				Male connector M8, 4-pin	WTB15-B2231
4 mm ... 50 mm	PNP, NPN	None	Male connector M12, 4-pin	WTB15-B2430S92	1067928

<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:** Dark switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
4 mm ... 200 mm	PNP, NPN	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	WTB15-A1131	1046281
			Male connector M12, 4-pin	WTB15-A2431	1043325
			Male connector M8, 4-pin	WTB15-A2231	1050028

<sup>1)</sup> Do not bend below 0 °C.

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

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
10 mm ... 350 mm	NPN	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	WTE15-N1111	1046147
			Male connector M12, 4-pin	WTE15-N2411	1043313
			Male connector M8, 4-pin	WTE15-N2211	1050031
	PNP	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	WTE15-P1111	1046148
			Male connector M12, 4-pin	WTE15-P2411	1043314
			Male connector M8, 4-pin	WTE15-P2211	1050030

<sup>1)</sup> Do not bend below 0 °C.

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

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
10 mm ... 350 mm	PNP	Potentiometer	Male connector M12, 4-pin	WTE15-V2411	1043315
			Cable, 4-wire, 2 m <sup>1)</sup>	WTE15-B1111	1046278
	PNP, NPN	Potentiometer	Male connector M12, 4-pin	WTE15-B2411	1043317
			Male connector M8, 4-pin	WTE15-B2211	1050033

<sup>1)</sup> Do not bend below 0 °C.

- **Functional principle:** Photoelectric proximity sensor
- **Functional principle detail:** Energetic
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Dark switching
- **Type of light:** Infrared light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
10 mm ... 350 mm	PNP, NPN	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	WTE15-A1111	1046277
			Male connector M12, 4-pin	WTE15-A2411	1043316
			Male connector M8, 4-pin	WTE15-A2211	1050032

<sup>1)</sup> Do not bend below 0 °C.

- **Functional principle:** Photoelectric retro-reflective sensor
- **Functional principle detail:** Dual lens
- **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.
0.035 m ... 5 m	NPN	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	WL15-E1133	1046149
			Male connector M12, 4-pin	WL15-E2433	1043318
		None	Cable, 4-wire, 2 m <sup>1)</sup>	WL15-N1130	1044304
			Male connector M12, 4-pin	WL15-N2430	1043320
			Male connector M8, 4-pin	WL15-N2230	1050035
		PNP	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	WL15-F1133
	Male connector M12, 4-pin			WL15-F2433	1043319
	None		Cable, 4-wire, 2 m <sup>1)</sup>	WL15-P1130	1044303
			Male connector M12, 4-pin	WL15-P2430	1043321
				WL15-P2430P01	1051645
				WL15-P2430P06	1054604
	Male connector M8, 4-pin		WL15-P2430S01	1054623	
	Male connector M8, 4-pin		WL15-P2230	1050034	

<sup>1)</sup> Do not bend below 0 °C.

- **Functional principle:** Photoelectric retro-reflective sensor
- **Functional principle detail:** Dual lens
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light switching, Light switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0.035 m ... 5 m	PNP, NPN	None	Cable, 4-wire, 2 m <sup>1)</sup>	WL15-B1130	1046280
			Male connector M12, 4-pin	WL15-B2430	1043324
			Male connector M8, 4-pin	WL15-B2230	1050037

<sup>1)</sup> Do not bend below 0 °C.

- **Functional principle:** Photoelectric retro-reflective sensor
- **Functional principle detail:** Dual lens
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Dark switching, Dark switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0.035 m ... 5 m	PNP, NPN	None	Cable, 4-wire, 2 m <sup>1)</sup>	WL15-A1130	1046279
			Male connector M12, 4-pin	WL15-A2430	1043323
			Male connector M8, 4-pin	WL15-A2230	1050036

<sup>1)</sup> Do not bend below 0 °C.

- **Functional principle:** Photoelectric retro-reflective sensor
- **Functional principle detail:** Dual lens
- **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.
0.035 m ... 5 m	PNP	None	Male connector M12, 4-pin	WL15-V2430	1043322

- **Functional principle:** Photoelectric retro-reflective sensor
- **Functional principle detail:** Dual lens
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light switching
- **Type of light:** Infrared light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0.4 m ... 9 m	NPN	None	Cable, 4-wire, 1 m <sup>1)</sup>	WL15-N1000S04	1057336

<sup>1)</sup> Do not bend below 0 °C.

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

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0 m ... 5 m	PNP, NPN	None	Cable, 4-wire, 2 m <sup>1)</sup>	WSE15-B1130	1046286
			Male connector M12, 4-pin	WSE15-B2430	1043328
			Male connector M8, 4-pin	WSE15-B2230	1050039

<sup>1)</sup> Do not bend below 0 °C.

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

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0 m ... 5 m	PNP, NPN	None	Cable, 4-wire, 2 m <sup>1)</sup>	WSE15-A1130	1046285
			Male connector M12, 4-pin	WSE15-A2430	1043327
			Male connector M8, 4-pin	WSE15-A2230	1050038

<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)