



W23-2

Simple, economical and reliable

SICK
Sensor Intelligence.



Technical data overview

Dimensions (W x H x D)	24.6 mm x 80.6 mm x 54 mm
Functional principle detail	Background suppression Energetic Dual lens (depending on type)
Light source	LED / PinPoint LED (depending on type)
Type of light	Infrared light / visible red light (depending on type)
Enclosure rating	IP67
Housing material	Plastic
Adjustment	Potentiometer Teach-in button None (depending on type)
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Product description

The W23-2 family is widely used due its economical price structure and ease of installation. Standard sensor types as proximity and retro-reflective are offered in their simplified versions. The W23-2 type has become one of the most widely used photoelectric sensors, particularly in handling and warehouse systems. Users appreciate its three key qualities – simplicity, tamper-proofing and reliability.

This family also offers special versions, including a retro-reflective variant for detection of plastic wrapped pallets. Laser and Pin-Point background suppression variants for detection of small targets further enhance the product offering.

A wide range of accessories is available for mechanical and electrical integration in systems.

At a glance

- Energetic photoelectric sensor with easy teach-in
- Photoelectric proximity sensors with background suppression
- Intense red emitting LED with consistent light spot on PinPoint models
- Retro-reflective versions provided with and without adjustment
- Teach-in pushbutton on energetic proximity versions for quick, repeatable commissioning
- Cable or M12 connection

Your benefits

- Teach-in pushbutton option for quick commissioning
- Easy alignment with PinPoint LED and laser technology
- 360° LEDs provide device status indication from multiple angles

Ordering information

Other models and accessories → www.sick.com/W23-2

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

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
30 mm ... 1,600 mm	PNP	Potentiometer	Male connector M12, 4-pin	WTB23-2P2401P01	1052377
				WTB23-2P2401S04	1044160
50 mm ... 1,000 mm	NPN	Potentiometer	Male connector M12, 4-pin	WT23-2N2421	1028073
				PNP	Potentiometer
	Male connector M12, 4-pin	WT23-2K2421	1028068		
				WT23-2P2421	1027778
50 mm ... 1,300 mm	PNP	Potentiometer	Male connector M12, 4-pin	WT23-2P2421S03	1042993

¹⁾ Do not bend below 0 °C.

- **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.
50 mm ... 800 mm	PNP	Potentiometer	Cable with M12 male connector, 4-pin, 270 mm ¹⁾	WT23-2P3441	1028066
			Male connector M12, 4-pin	WT23-2P2441	1027779

¹⁾ 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.
50 mm ... 2,300 mm	NPN	Teach-in button	Male connector M12, 4-pin	WTE23-2N2412	1027782
	PNP	Teach-in button	Male connector M12, 4-pin	WTE23-2P2412	1027781

- **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.	
0.1 m ... 10 m	NPN	None	Male connector M12, 4-pin	WL23-2N2430	1027787	
				WL23-2P3430	1027786	
	PNP	None	Cable with M12 male connector, 4-pin, 270 mm ¹⁾	WL23-2P1130	1027784	
				WL23-2P1130P01	1028060	
				Cable, 4-wire, 2 m ¹⁾	WL23-2P2430	1027785
					WL23-2P2430P02	1028056
Male connector M12, 4-pin	WL23-2P2430P03	1042572				
	Male connector M12, 4-pin	WL23-2P2430S01	1041159			

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- **Functional principle:** Photoelectric retro-reflective sensor
- **Functional principle detail:** Dual lens
- **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.
0.1 m ... 12 m	PNP	None	Male connector M12, 4-pin	WL23-2P2460	1044165
300 mm ... 900 mm	PNP	None	Male connector M12, 4-pin	WL23-2P2460S04	1058882

- **Functional principle:** Photoelectric retro-reflective sensor
- **Functional principle detail:** Dual lens
- **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.
0.1 m ... 15 m	PNP	Teach-in button	Male connector M12, 4-pin	WL23-2K2462S03	1044397

- **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.
30 mm ... 1,100 mm	PNP	Potentiometer	Male connector M12, 4-pin	WTB23-2P2461	1044164

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