W100-2

Versatile miniature photoelectric sensors with large sensing ranges

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

Technical data overview

Dimensions (W x H x D)	11 mm x 31 mm x 20 mm
Light source	LED
Type of light	Visible red light
Enclosure rating	IP67
Housing material	Plastic
Adjustment	Potentiometer / none (depending on type)

Product description

W100-2 miniature photoelectric sensors are compatible with all standard detection principles (through-beam photoelectric sensors, photoelectric retro-reflective sensors, photoelectric retro-reflective sensors for detecting transparent objects, energetic sensors, and sensors with background blanking), making them an ideal sensor family for detection applications.
The housing design includes M3 threaded mounting holes, spaced one inch apart, that allows for straightforward, standardized, and inexpensive mounting.
As a result, the W100-2 product family offers an economical photoelectric sensor solution with outstanding performance.

At a glance

- Reliable detection behavior, rugged housing and immunity to ambient light
- WT100-2 photoelectric proximity sensor (energetic or with background blanking)
- WL100-2 photoelectric retro-reflective sensor; variant available for detecting transparent objects
- WS/WE100-2 through-beam photoelectric sensor
- Various connection types available (standard: 2 m cable; M8 male connector, 3-pin; M8 male connector, 4-pin; male cable connector available on request)
- Light/dark switching and sensitivity adjustment possible
- Wide range of accessories

Your benefits

- Reliable detection in standard applications
- Short downtime and high throughput thanks to reliable object detection
- Ability to handle a wide range of detection principles within a single standardized housing, reducing the number of model variants
- Simple commissioning thanks to easily visible display LEDs
- Easy to set up thanks to user-friendly potentiometer (dependent on model)
- Standard housing that is compatible with many commonly used mounting systems
- Easy mounting thanks to 1-inch hole spacing
- High level of operating reserve minimizes susceptibility to contamination

Fields of application

- Wide range of standard applications that require efficient miniature photoelectric sensors
- Storage and conveyor systems in the logistics industry
- Detection of a wide variety of objects in packaging processes
- Reliable detection of people in door and gate applications

Ordering information

Other models and accessories ➜ www.sick.com/W100-2

- **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.
0 mm … 1,200 mm	NPN	Potentiometer	Cable, 3-wire, 2 m [1]	WT100-2N1439	6052369
			Connector M8, 3-pin	WT100-2N3439	6052370
			Male connector M8, 4-pin	WT100-2N4439	6052371
	PNP	Potentiometer	Cable with M12 male connector, 4-pin, 290 mm [1]	WT100-2P1402S04	6052411
			Cable with M8 male connector, 4-pin, 300 mm [1]	WT100-2P0409S45	6052409
			Cable, 3-wire, 2 m [1]	WT100-2P1439	6052372
			Connector M8, 3-pin	WT100-2P3439	6052373
			Male connector M8, 4-pin	WT100-2P4439	6052374

[1] Do not bend below 0 °C.

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

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0 mm … 1,200 mm	PNP	Potentiometer	Cable with Stocko-connector (MKF-13264), 300 mm [1]	WT100-2P1432S02	6060469
20 mm … 250 mm	PNP	None		WT100-2P0230S11	6065960

[1] Do not bend below 0 °C.

- **Functional principle:** Photoelectric proximity sensor
- **Functional principle detail:** Background blanking
- **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.
4 mm … 140 mm	NPN	Potentiometer	Cable, 3-wire, 2 m [1]	WT100-2N1419	6052375
			Connector M8, 3-pin	WT100-2N3419	6052376
			Male connector M8, 4-pin	WT100-2N4419	6052377
	PNP	Potentiometer	Cable, 3-wire, 2 m [1]	WT100-2P1419	6052378
			Connector M8, 3-pin	WT100-2P3419	6052379
			Male connector M8, 4-pin	WT100-2P4419	6052380

[1] Do not bend below 0 °C.

- **Functional principle:** Photoelectric proximity sensor
- **Functional principle detail:** Background blanking
- **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.
10 mm … 170 mm	PNP	None	Cable with Stocko-connector, 260 mm [1]	WT100-2P1412S01	6052402

[1] 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.
0.01 m … 3 m	NPN	Potentiometer	Cable, 3-wire, 2 m [1]	WL100-2N1429	6052381
			Connector M8, 3-pin	WL100-2N3429	6052382
			Male connector M8, 4-pin	WL100-2N4429	6052383
	PNP	Potentiometer	Cable, 3-wire, 2 m [1]	WL100-2P1429	6052384
			Connector M8, 3-pin	WL100-2P3429	6052385
			Male connector M8, 4-pin	WL100-2P4429	6052386

[1] Do not bend below 0 °C.

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0.01 m ... 7.2 m	NPN	Potentiometer	Cable, 3-wire, 2 m [1]	WL100-2N1432S06	6052388
				WL100-2N1439	6052357
			Connector M8, 3-pin	WL100-2N3439	6052358
			Male connector M8, 4-pin	WL100-2N4439	6052359
	PNP	Potentiometer	Cable with M12 male connector, 4-pin, 300 mm [1]	WL100-2P1409S31	6052404
			Cable with M12 male connector, 4-pin, 310 mm [1]	WL100-2P1439S22	6052394
			Cable with M8 male connector, 4-pin, 200 mm [1]	WL100-2P1432S12	6052391
			Cable with M8 male connector, 4-pin, 300 mm [1]	WL100-2P1409S34	6052405
			Cable, 3-wire, 2 m [1]	WL100-2P1439	6052360
			Connector M8, 3-pin	WL100-2P3432	6073635
				WL100-2P3439	6052361
			Male connector M8, 4-pin	WL100-2P4430S23	6052398
				WL100-2P4439	6052362

[1] 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
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0.01 m ... 6.3 m	PNP	None	Male connector M8, 4-pin	WL100-2P4330S14	6052396
0.01 m ... 7.2 m	PNP	None	Cable with M12 male connector, 4-pin, 290 mm [1]	WL100-2P1332S17	6052390
			Cable with connector M8, 3-pin, 200 mm [1]	WL100-2P0330S10	6069427
			Cable, 3-wire, 3 m [1]	WL100-2P1332S07	6052389
			Cable, 3-wire, 5 m [1]	WL100-2P1332S08	6058893
			Male connector M8, 4-pin	WL100-2P4400S38	6052406

[1] Do not bend below 0 °C.

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- **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.
0.01 m ... 6.3 m	PNP	None	Male connector M8, 4-pin	WL100-2P4239S09	6052395

- **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 ... 33 m	NPN	Potentiometer	Cable, 3-wire, 2 m [1]	WS/WE100-2N1439	6052363
				WS/WE100-2N1439S07	6052400
			Connector M8, 3-pin	WS/WE100-2N3439	6052364
			Male connector M8, 4-pin	WS/WE100-2N4439	6052365
	PNP	Potentiometer	Cable with connector M8, 3-pin, 200 mm [1]	WS/WE100-2P1409S06	6052407
			Cable, 3-wire, 2 m [1]	WS/WE100-2P1439	6052366
			Cable, 3-wire, 300 mm [1]	WS/WE100-2P0439S03	6066123
			Connector M8, 3-pin	WS/WE100-2P3439	6052367
			Male connector M8, 4-pin	WS/WE100-2P4439	6052368

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- **Functional principle:** Through-beam photoelectric sensor
- **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 m ... 33 m	PNP	None	Cable, 3-wire, 5 m [1]	WS/WE100-2P1239S01	6052401

[1] 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."

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