



W100 Laser

Miniature photoelectric laser sensor provides precise detection of objects in standard applications

MINIATURE PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Technical data overview

Dimensions (W x H x D)	11 mm x 31 mm x 20 mm
Sensing range max.	0 mm ... 450 mm ¹⁾ 0.08 m ... 12 m ²⁾ 0 m ... 35 m
Light source	Laser
Type of light	Visible red light
Enclosure rating	IP65
Housing material	Plastic ABS/PC/POM Plastic ABS/PC
Adjustment	Potentiometer, 270°

¹⁾ Object with 90 % reflectance (referred to standard white, DIN 5033).

²⁾ Reflector P250F.

Product description

The W100 Laser is a complete family of photoelectric sensors enclosed in a miniature housing. These sensors feature a laser sender LED that supports generous sensing ranges for standard applications. The established housing design features M3 fastening threads that allow for quick, easy, and cost-effective mounting. The W100 Laser is a great alternative to the standard W100, especially for applications that demand higher precision or a longer sensing range.

At a glance

- Standard miniature housing with M3 threaded mounting holes
- Long sensing range
- Light/dark switching and sensitivity adjustment via rotary switch possible
- Various versions are available, including through-beam, retro-reflective and energetic
- Wide variety of accessories available
- Laser emitter LED, class 1

Your benefits

- Detection of tiny objects
- Safe application thanks to high optical operating reserve
- Quick and easy mounting due to universally compatible M3 threaded mounting holes
- Miniature housing designed for applications in which space is at a premium

Ordering information

Other models and accessories → www.sick.com/W100_Laser

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Energetic
- **Light source:** laser
- **Voltage type:** DC
- **Switching mode:** Light/dark switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Laser class	Type	Part no.
0 mm ... 450 mm	NPN	Potentiometer	Cable, 3-wire, 2 m ¹⁾	1	WT100L-E1141	6030705
			Connector M8, 3-pin	1	WT100L-E2141	6030706
			Male connector M8, 4-pin	1	WT100L-E2241	6030707
	PNP	Potentiometer	Cable, 3-wire, 2 m ¹⁾	1	WT100L-F1141	6030702
			Connector M8, 3-pin	1	WT100L-F2141	6030703
			Male connector M8, 4-pin	1	WT100L-F2241	6030704

¹⁾ Do not bend below 0 °C.

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Dual lens
- **Light source:** laser
- **Voltage type:** DC
- **Switching mode:** Light/dark switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Laser class	Type	Part no.
0.08 m ... 12 m	NPN	Potentiometer	Cable, 3-wire, 2 m ¹⁾	1	WL100L-E1131	6030711
			Connector M8, 3-pin	1	WL100L-E2131	6030712
			Male connector M8, 4-pin	1	WL100L-E2231	6030713
	PNP	Potentiometer	Cable with M12 male connector, 4-pin, 0.2 m ¹⁾	1	WL100L-F1131S02	6042891
				1	WL100L-F1131S04	6051061
			Cable with M12 male connector, 4-pin, 290 mm ¹⁾	1	WL100L-F3431S42	6044130
				1	WL100L-F2131S05	6055159
			Cable with connector M8, 3-pin, 200 mm ¹⁾	1	WL100L-F2131S06	6073189
				1	WL100L-F1131	6030708
			Connector M8, 3-pin	1	WL100L-F2131	6030709
			Male connector M8, 4-pin	1	WL100L-F2231	6030710

¹⁾ Do not bend below 0 °C.

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

Sensing range max.	Switching output	Adjustment	Connection type	Laser class	Type	Part no.
0 m ... 35 m	NPN	Potentiometer	Cable, 3-wire, 2 m ¹⁾	1	WS/WE100L-E1131	6030717
			Connector M8, 3-pin	1	WS/WE100L-E2131	6030718
			Male connector M8, 4-pin	1	WS/WE100L-E2231	6030719
	PNP	Potentiometer	Cable, 3-wire, 2 m ¹⁾	1	WS/WE100L-F1131	6030714
			Connector M8, 3-pin	1	WS/WE100L-F2131	6030715
			Male connector M8, 4-pin	1	WS/WE100L-F2231	6030716

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.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com