



W8

High-performance object detection at close range

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.	5 mm ... 100 mm ¹⁾ 30 mm ... 300 mm ¹⁾ 40 mm ... 300 mm ¹⁾ 130 mm ... 140 mm ¹⁾ 170 mm ... 205 mm ²⁾ 0 m ... 4 m ³⁾ 0 m ... 10 m
Light source	LED
Type of light	Visible red light
Enclosure rating	IP67
Housing material	Plastic ABS
Adjustment	Potentiometer, 4 turns None Potentiometer, 270°

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

²⁾ Objects to be sensed with 6 % reflectivity (based on black).

³⁾ Reflector PL80A.

Product description

The W8 is a high-quality, miniature photoelectric sensor family specially designed for close-range applications. Autocollimation, background suppression, and high switching frequencies of 2 kHz make these sensors ideal for a broad range of applications. The series is comprised of the WTB8 photoelectric proximity sensor, the WL8 and WLG8 photoelectric retro-reflective sensor and the WSE8 photoelectric through-beam sensor. The housing is designed with M3 threaded mounting holes that provide easy and secure mounting.

At a glance

- Miniature housing with M3 threaded mounting holes
- Switching frequency up to 2 kHz
- Stainless steel mounting bracket (1.4301/304) BEF-W100-A included with delivery

Your benefits

- Highly flexible design and operational capabilities due to precise background suppression
- Quick and easy mounting due to the universally compatible M3 threaded mounting holes
- A fast switching frequency optimizes production processes
- All necessary accessories are included with delivery, decreasing installation and procurement costs
- Application versatility due to sensitivity adjustments, light/dark switching and a variety of connection options

Ordering information

Other models and accessories → www.sick.com/W8

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** 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.
130 mm ... 140 mm	PNP	None	Connector M8, 3-pin	WTB8-P2131S04	6037268

¹⁾ Do not bend below 0 °C.

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
170 mm ... 205 mm	PNP	None	Connector M8, 3-pin	WTB8-P2131S05	6037269
30 mm ... 300 mm	NPN	Potentiometer	Cable, 3-wire, 2 m ¹⁾	WTB8-N1131	6033204
			Connector M8, 3-pin	WTB8-N2131	6033206
			Male connector M8, 4-pin	WTB8-N2231	6033208
	PNP	Potentiometer	Cable with Tyco connector, 1,200 mm ¹⁾	WTB8-P1131S12	6051394
			Cable with Tyco connector, 1,750 mm ¹⁾	WTB8-P1131S11	6051393
			Cable with Wuerth connector, 450 mm ¹⁾	WTB8-P1131S09	6049064
			Cable, 3-wire, 2 m ¹⁾	WTB8-P1131	6033205
			Connector M8, 3-pin	WTB8-P2131	6033207
			Male connector M8, 4-pin	WTB8-P2231	6033209
	40 mm ... 300 mm	NPN	Potentiometer	Cable with MOLEX-connector, 300 mm ¹⁾	WTB8-N1131S07
PNP		Potentiometer	Cable with connector M8, 3-pin, 200 mm ¹⁾	WTB8-P1131S06	6038620
			Cable, 3-wire, 2 m ¹⁾	WTB8-P1131S03	6037133
5 mm ... 100 mm	NPN	Potentiometer	Cable, 3-wire, 2 m ¹⁾	WTB8-N1111	6033210
			Connector M8, 3-pin	WTB8-N2111	6033212
			Male connector M8, 4-pin	WTB8-N2211	6033214
	PNP	Potentiometer	Cable, 3-wire, 2 m ¹⁾	WTB8-P1111	6033211
			Connector M8, 3-pin	WTB8-P2111	6033213
			Male connector M8, 4-pin	WTB8-P2211	6033215
				WTB8-P2211P01	6062372

¹⁾ Do not bend below 0 °C.

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** autocollimation
- **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 ... 4 m	NPN	Potentiometer	Cable, 3-wire, 2 m ¹⁾	WL8-N1131	6033176
			Connector M8, 3-pin	WL8-N2131	6033179
			Male connector M8, 4-pin	WL8-N2231	6033181
	PNP	Potentiometer	Cable with M12 male connector, 4-pin, 300 mm ¹⁾	WL8-P1131S09	6074804
			Cable with Tyco connector, 1,020 mm ¹⁾	WL8-P1131S06	6049066
			Cable with Tyco connector, 1,400 mm ¹⁾	WL8-P1131S10	6075329
			Cable with Tyco connector, 990 mm ¹⁾	WL8-P1131S07	6050579
			Cable with connector M8, 3-pin, 200 mm ¹⁾	WL8-P1131S02	6038952
			Cable, 3-wire, 2 m ¹⁾	WL8-P1131	6033177
				WL8-P1131S03	6047826
				WL8-P1131S04	6048889
				WL8-P1131S08	6072407
			Connector M8, 3-pin	WL8-P2131	6033180
			Male connector M8, 4-pin	WL8-P2231	6033182
				WL8-P2231S05	6048890
				WL8-P2231S11	6075931
				WL8-P2231S12	6076592
			WL8-V2231S01	6033784	

¹⁾ Do not bend below 0 °C.

- **Sensor 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 ... 10 m	NPN	Potentiometer	Cable, 3-wire, 2 m ¹⁾	WSE8-N1131	6035578
			Connector M8, 3-pin	WSE8-N2131	6035579
			Male connector M8, 4-pin	WSE8-N2231	6035580
	PNP	Potentiometer	Cable, 3-wire, 2 m ¹⁾	WSE8-P1131	6035581
			Connector M8, 3-pin	WSE8-P2131	6035582
				WSE8-P2131S01	6071912
			Male connector M8, 4-pin	WSE8-P2231	6035583

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