



W34

Multifunctional sensor under a rugged “optics cover”

SICK
Sensor Intelligence.



Technical data overview

Dimensions (W x H x D)	27 mm x 92 mm x 70 mm
Sensing range max.	
Photoelectric proximity sensor	100 mm ... 2,500 mm ¹⁾ (depending on type)
Photoelectric retro-reflective sensor	0.03 m ... 22 m ²⁾
Through-beam photoelectric sensor	0 m ... 60 m
Supply voltage	DC / AC/DC (depending on type)
Light source	LED
Type of light	Visible red light / Infrared light (depending on type)
Enclosure rating	IP67
Housing material	Plastic

¹⁾ Object with 90% remission (based on standard white, DIN 5033).

²⁾ Reflector PL80A.

Product description

A distinguishing feature of the W34 product family is the rugged ABS plastic housing where all control elements are in a protected location under the “optics cover”. As a result, these sensors can also be used for outdoor applications. Especially for harsh and extreme ambient conditions, we recommend using the zinc die cast housing (W24-2 product family). The sensors are equipped with a minimum set of functions to reduce the variety of devices and consequently the storage requirements. Furthermore, this device design comes in DC and DC/AC variants. The W34 product family includes photoelectric proximity sensors with background suppression, photoelectric retro-reflective sensors, and a through-beam system. The photoelectric proximity sensors are characterized by their high precision at long distances as well as their high ambient light immunity.

At a glance

- Rugged plastic or zinc die cast housing (W24-2)
- Control elements are protected under an optics cover
- High ambient light immunity and no interference when mounting the photoelectric proximity sensors opposite one another
- NPN/PNP mode toggle
- Light/dark mode toggle
- Available either as DC or AC/DC variants
- Optional: test input, time stages and contamination warning
- M12 male connector or M16 fitting, both rotatable by 90°

Your benefits

- Very good chemical resistance increases the service life
- Control elements under the “optics cover” provide flexibility as well as best possible protection in the application and reduce the variety of devices and therefore storage requirements
- Operational safety in ambient light and when devices are mounted opposite one another
- Highest availability thanks to the very high operating reserve of the photoelectric sensors and through-beam photoelectric sensors
- Assembly compatibility - DC devices and DC/AC devices available in the same design

Ordering information

Other models and accessories → www.sick.com/W34

- **Functional principle:** Photoelectric proximity sensor
- **Functional principle detail:** Background suppression
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light switching, Dark switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
100 mm ... 1,200 mm	NPN, PNP	Potentiometer	Plug, M12, 5-pin	WT34-V540	1019238
			Male connector M12, 4-pin	WT34-B440	1019237
				WT34-B450	1019234
			Terminal connection with M16 gland	WT34-V240	1019227
				WT34-V250	1019236
	Relay	Potentiometer	Terminal connection with M16 gland	WT34-R240	1019239
				WT34-R250	1019240

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

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
100 mm ... 2,500 mm	NPN, PNP	Potentiometer	Plug, M12, 5-pin	WT34-V510	1019231
			Male connector M12, 4-pin	WT34-B400S04	1029973
				WT34-B410	1019229
				WT34-B420	1019230
			Terminal connection with M16 gland	WT34-V210	1019280
				WT34-V210S01	1022602
				WT34-V220	1019228
	Relay	Potentiometer	Terminal connection with M16 gland	WT34-R210	1019232
				WT34-R220	1019233
				WT34-R220S07	1102367

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

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
100 mm ... 2,500 mm	Relay	Potentiometer	Terminal connection with M16 gland	WT34-R210S02	1022603
				WT34-R210S06	1058055

- **Functional principle:** Photoelectric retro-reflective sensor
- **Functional principle detail:** With minimum distance to reflector (dual lens system)
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light switching, Dark switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0.03 m ... 22 m	NPN, PNP	Potentiometer	Plug, M12, 5-pin	WL34-V530	1019247
				WL34-V540	1019248
			Male connector M12, 4-pin	WL34-B430	1019245
				WL34-B430S01	1025624
				WL34-B430S03	1027858
				WL34-B440	1019246
			Terminal connection with M16 gland	WL34-V230	1019243
				WL34-V240	1019244
	Relay	Potentiometer	Terminal connection with M16 gland	WL34-R230	1019249
				WL34-R230S02	1025625
				WL34-R240	1019250

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

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0 m ... 60 m	NPN, PNP	Potentiometer	Plug, M12, 5-pin	WS/WE34-V530	1019256
				WS/WE34-V540	1019252
			Male connector M12, 4-pin	WS/WE34-B430	1019254
				WS/WE34-B430S01	1025626
				WS/WE34-B440	1019255
			Terminal connection with M16 gland	WS/WE34-V230	1019253
				WS/WE34-V240	1019251
	Relay	Potentiometer	Terminal connection with M16 gland	WS/WE34-R230	1019257
				WS/WE34-R240	1019258

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