Product family overview



V18V

Cylindrical photoelectric sensors with foolproof touch-teach for washdown areas

CYLINDRICAL PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Technical data overview

Dimensions (W x H x D)	18 mm x 18 mm x 83 mm
Sensing range max.	0 mm ... 110 mm [1)] 0 mm ... 450 mm [1)] 0 mm ... 900 mm [1)] 0.035 m ... 4.5 m [2)] 0.1 m ... 5 m [2)] 0 m ... 20 m 0 mm ... 140 mm [1)] 0 mm ... 100 mm [1)]
Light source	LED
Type of light	Visible red light / Infrared light (depending on type)
Enclosure rating	IP67 IP68 IP69K [3)]
Housing material	Stainless steel Stainless steel V4A (1.4404, 316L)
Adjustment	Single teach-in button Sensing range None

[1)] Object with 90 % reflectance (referred to standard white, DIN 5033).
[2)] Reflector PL80A.
[3)] With correct mounted IP69K connector.

Product description

The V18V has a chemical and pressure cleaning resistant housing for wash down applications and includes patented touch (smart) teach for foolproof operation. These sensors are field-tested and are able to stand up to harsh environments. The sensors offer ease of use in wash down areas due to corrosion resistant and food grade materials, a wide sensing range and an extended temperature range.
The V18V sensors are certified by ECOLAB and JohnsonDiversey. Their IP 69K enclosure rating makes them ideal for applications in the food and beverage, pharmaceutical and packaging industries.

At a glance

- IP 69K-rated cylindrical photoelectric sensors in M18 stainless steel housing
- Resistant to all common cleaning agents and certified by independent institutes
- Extended temperature range: +85° C (long-term), +100°C / 15 min. (short-term)
- Touch (smart) teach-in adjustment
- All sensor materials, including the housing, LED and lens are resistant to chemicals
- IP 69K and IP 68 according to DIN 40050
- Laser-etched part numbers
- Ecolab & JohnsonDiversey certified for chemical resistance

Your benefits

- Simple design saves time during mounting, adjustment, and maintenance
- IP69K stainless steel housing has a long service life that withstands wash-down environments, reducing maintenance time and costs
- Unique touch-teach feature for adjustment purposes and sensor lock/unlock functionality eliminate process faults and reduce commissioning and maintenance time
- Laser-etched part numbers ensures the part numbers will not be washed off, so the process can be better controlled

Ordering information

Other models and accessories ➜ www.sick.com/V18V

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** 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 ... 110 mm	NPN	Teach-in button	Male connector M12, 4-pin [1]	VTF18-4N1240V	6035488
	PNP	Teach-in button	Male connector M12, 4-pin [1]	VTF18-4P1240V	6035487

[1] With gold plated contact pins, PPS with FDA certificate.

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** 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.
0 mm ... 450 mm	NPN	Teach-in button	Male connector M12, 4-pin [1]	VTE18-4N4240V	6035490
	PNP	Teach-in button	Male connector M12, 4-pin [1]	VTE18-4P4240V	6035489
0 mm ... 900 mm	NPN	Teach-in button	Male connector M12, 4-pin [1]	VTE18-4N8240V	6035492
	PNP	Teach-in button	Male connector M12, 4-pin [1]	VTE18-4P8240V	6035491

[1] With gold plated contact pins, PPS with FDA certificate.

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** 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.
0.035 m ... 4.5 m	NPN	Teach-in button	Male connector M12, 4-pin [1]	VL18-4N2240V	6035498
	PNP	Teach-in button	Male connector M12, 4-pin [1]	VL18-4P2240V	6035497

[1] With gold plated contact pins, PPS with FDA certificate.

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0.1 m ... 5 m	NPN	None	Male connector M12, 4-pin [1]	VL18-4N3140V	6035496
	PNP	None	Male connector M12, 4-pin [1]	VL18-4P3140V	6035495

[1] With gold plated contact pins, PPS with FDA certificate.

- **Sensor principle:** Through-beam photoelectric sensor
- **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.
0 m ... 20 m	NPN	None	Male connector M12, 4-pin [1]	VS/VE18-4N3140V	6035500
	PNP	None	Male connector M12, 4-pin [1]	VS/VE18-4P3140V	6035499

[1] With gold plated contact pins, PPS with FDA certificate.

- **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.
0 mm ... 100 mm	NPN	Teach-in button	Male connector M12, 4-pin [1]	VTB18-4N1240VS01	6037755
	PNP	Teach-in button	Male connector M12, 4-pin [1]	VTB18-4P1240VS01	6037754
0 mm ... 140 mm	NPN	Teach-in button	Male connector M12, 4-pin [1]	VTB18-4N1240V	6035494
	PNP	Teach-in button	Male connector M12, 4-pin [1]	VTB18-4P1240V	6035493

[1] With gold plated contact pins, PPS with FDA certificate.

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