

# V180

Photoelectric sensors in a durable metal M18 housing

**CYLINDRICAL PHOTOELECTRIC SENSORS**

**SICK**  
Sensor Intelligence.



### Technical data overview

<b>Dimensions (W x H x D)</b>	18 mm x 18 mm x 63.3 mm 18 mm x 18 mm x 69 mm 18 mm x 18 mm x 70 mm
<b>Sensing range max.</b>	0 mm ... 130 mm <sup>1)</sup> 0 mm ... 450 mm <sup>1)</sup> 0.05 m ... 3 m <sup>2)</sup> 0.05 m ... 1 m <sup>2)</sup> 0 m ... 15 m 0 m ... 25 m
<b>Light source</b>	LED
<b>Type of light</b>	Infrared light / visible red light (depending on type)
<b>Enclosure rating</b>	IP66
<b>Housing material</b>	Metal Nickel-plated brass, PBT/PC
<b>Adjustment</b>	Potentiometer, 270° Sensing range Potentiometer, 270° Sensitivity None

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

<sup>2)</sup> Reflector P250.

### Product description

The V180 family of photoelectric sensors is enclosed in a compact M18 metal housing. This family comprises photoelectric proximity sensors, retro-reflective and through-beam sensors.

The long sensing distances and high operating reserves make these sensors a reliable solution for a variety of applications.

### At a glance

- Compact M18 metal housing
- M12 plug or 2 m cable
- Light/dark switching via control cable
- 90° deflector head accessory

### Your benefits

- Compact M18 housing saves space on the machine
- Compatible with many competitor models, making it easy to install and commission
- Clearly visible LED indicators reduce setup time and simplify troubleshooting

## Ordering information

Other models and accessories →

- **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 ... 130 mm	NPN	Potentiometer	Cable, 4-wire, 2 m <sup>1) 2)</sup>	VT180-N112S03	6020905
			Cable, 4-wire, 2 m <sup>2)</sup>	VT180-N112	6008788
			Male connector M12, 4-pin	VT180-N410	6008790
	PNP	Potentiometer	Cable, 4-wire, 2 m <sup>2)</sup>	VT180-P112	6008787
			Male connector M12, 4-pin	VT180-P410	6008789
0 mm ... 450 mm	NPN	Potentiometer	Cable, 4-wire, 2 m <sup>2)</sup>	VT180-N142	6008792
			Male connector M12, 4-pin	VT180-N440	6008794
	PNP	Potentiometer	Cable, 4-wire, 2 m <sup>2)</sup>	VT180-P142	6008791
			Male connector M12, 4-pin	VT180-P440	6008793

<sup>1)</sup> Connecting cable in black.

<sup>2)</sup> Do not bend below 0 °C.

- **Sensor principle:** Photoelectric retro-reflective 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.
0.05 m ... 3 m	NPN	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	VL180-N132	6008780
			Male connector M12, 4-pin	VL180-N430	6008782
	PNP	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	VL180-P132	6008779
			Male connector M12, 4-pin	VL180-P430	6008781

<sup>1)</sup> Do not bend below 0 °C.

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- **Sensor principle:** Photoelectric retro-reflective 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.
0.05 m ... 1 m	NPN	None	Cable, 4-wire, 2 m <sup>1)</sup>	VL180-N162	6008784
			Male connector M12, 4-pin	VL180-N460	6008786
	PNP	None	Cable, 4-wire, 2 m <sup>1)</sup>	VL180-P162	6008783
			Male connector M12, 4-pin	VL180-P460	6008785
				VL180-P460P03	1054326

<sup>1)</sup> 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:** Infrared light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0 m ... 15 m	NPN	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	VS/VE180-N132	6008865
			Male connector M12, 4-pin	VS/VE180-N430	6008867
	PNP	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	VS/VE180-P132	6008864
			Male connector M12, 4-pin	VS/VE180-P430	6008866

<sup>1)</sup> Do not bend below 0 °C.

- **Sensor principle:** Through-beam photoelectric sensor
- **Light source:** LED
- **Voltage type:** DC
- **Type of light:** Infrared light

Sensing range max.	Adjustment	Connection type	Type	Part no.
0 m ... 25 m	None	Cable with connector MOLEX MINI-FIT, 2-pin, 0.34 m	VS180-D132S01	6035022

- **Sensor principle:** Through-beam photoelectric sensor
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light switching
- **Type of light:** Infrared light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0 m ... 25 m	NPN	None	Cable with connector MOLEX MINI-FIT, 3-pin, 0.34 m	VE180-N132S01	6035023

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## 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."**

**SICK**  
Sensor Intelligence.