



# VL18L-3P344

V18

PHOTOELECTRIC SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ



## Ordering information

Type	part no.
VL18L-3P344	6027597

Other models and accessories → [www.sick.com/V18](http://www.sick.com/V18)

## Detailed technical data

### Features

<b>Functional principle</b>	Photoelectric retro-reflective sensor
<b>Housing design (light emission)</b>	Cylindrical, straight
<b>Sensing range max.</b>	0 m ... 25 m
<b>Sensing range</b>	0.1 m ... 35 m <sup>1)</sup>
<b>Type of light</b>	Visible red light
<b>Light source</b>	Laser
<b>Wave length</b>	650 nm
<b>Adjustment</b>	Potentiometer

<sup>1)</sup> Reflector P250F.

### Mechanics/electronics

<b>Supply voltage U<sub>B</sub></b>	10 V DC ... 30 V DC
<b>Ripple</b>	± 10 %
<b>Current consumption</b>	20 mA <sup>1)</sup>
<b>Switching output</b>	PNP
<b>Switching mode</b>	Dark switching
<b>Response time</b>	≤ 625 ms <sup>2)</sup>
<b>Connection type</b>	Male connector M12, 4-pin <sup>3)</sup>
<b>Housing material</b>	Metal, Brass nickel-plated, plastic
<b>Optics material</b>	Plastic, PMMA
<b>Enclosure rating</b>	IP67
<b>Ambient operating temperature</b>	-15 °C ... +55 °C
<b>Ambient temperature, storage</b>	-25 °C ... +70 °C

<sup>1)</sup> Without load.

<sup>2)</sup> Signal transit time with resistive load.

<sup>3)</sup> Do not bend below 0 °C.

<b>UL File No.</b>	NRKH.E181493, CDRH-conform (0312012-00)
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- 1) Without load.
- 2) Signal transit time with resistive load.
- 3) Do not bend below 0 °C.

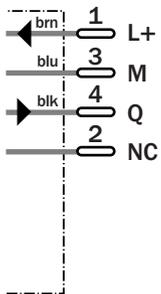
**Classifications**

<b>ECLASS 5.0</b>	27270902
<b>ECLASS 5.1.4</b>	27270902
<b>ECLASS 6.0</b>	27270902
<b>ECLASS 6.2</b>	27270902
<b>ECLASS 7.0</b>	27270902
<b>ECLASS 8.0</b>	27270902
<b>ECLASS 8.1</b>	27270902
<b>ECLASS 9.0</b>	27270902
<b>ECLASS 10.0</b>	27270902
<b>ECLASS 11.0</b>	27270902
<b>ECLASS 12.0</b>	27270902
<b>ETIM 5.0</b>	EC002717
<b>ETIM 6.0</b>	EC002717
<b>ETIM 7.0</b>	EC002717
<b>ETIM 8.0</b>	EC002717
<b>UNSPSC 16.0901</b>	39121528

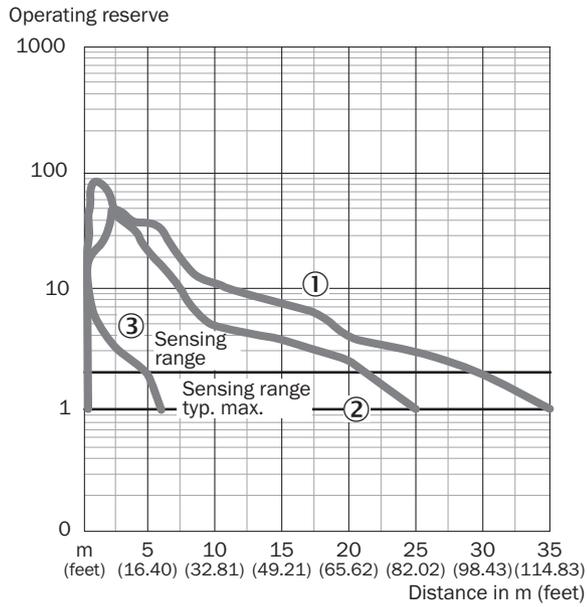
**Certificates**

<b>EU declaration of conformity</b>	✓
<b>China RoHS</b>	✓
<b>cULus certificate</b>	✓

**Connection diagram**

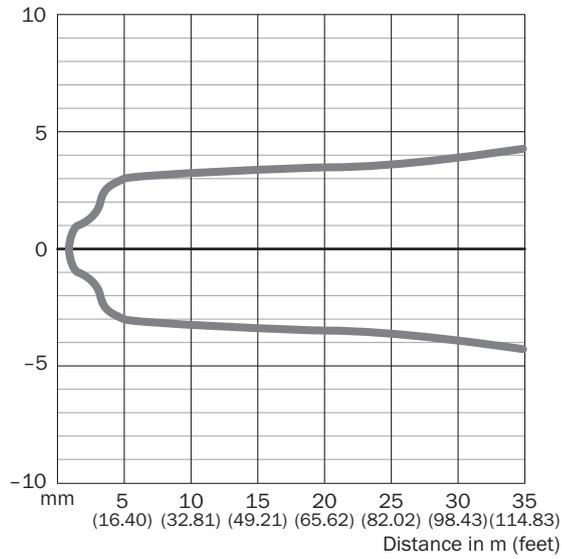


Characteristic curve

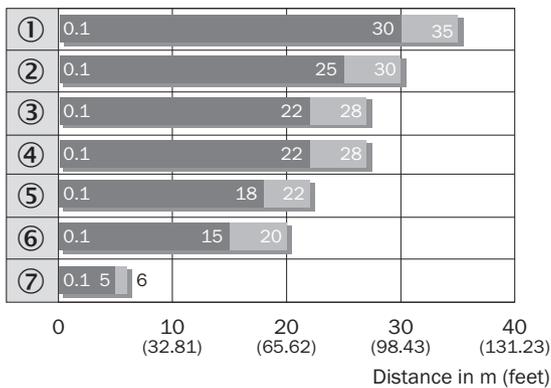


- ① Reflector P250F
- ② Reflector PL80A, P250
- ③ Reflective tape Diamond Grade

Light spot size VL18L



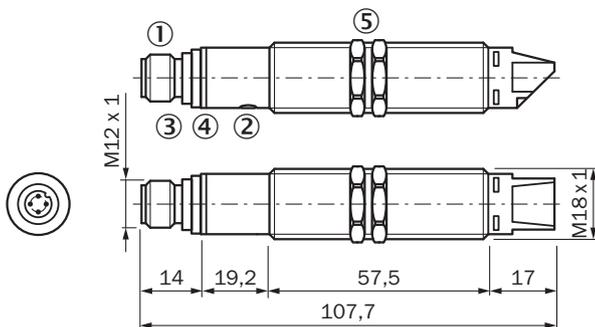
### Sensing range diagram VL18L



■ Sensing range    ■ Sensing range max.

- ① Reflector P250F
- ② PL10F reflector
- ③ Reflector PL80A
- ④ Reflector P250
- ⑤ Reflector C110A
- ⑥ Reflector PL20F
- ⑦ Reflective tape Diamond Grade

### Dimensional drawing Radial



Dimensions in mm (inch)

- ① M12 male device connector, 4-pin
- ② Sensitivity setting: single teach-in button
- ③ green LED indicator:  $V_s$  supply voltage feed
- ④ Yellow LED indicator:
- ④ - lights continuously:
- ④ reception signal > reserve factor 2
- ④ - blinks: Reception signal < reserve factor 2 but > switching threshold 1
- ⑤ fastening nuts (2 x); width across 24, metal
- ⑤ (included with delivery)

Recommended accessories

Other models and accessories → [www.sick.com/V18](http://www.sick.com/V18)

	Brief description	Type	part no.
Mounting systems			
	<ul style="list-style-type: none"> <li><b>Description:</b> Mounting bracket for M18 sensors</li> <li><b>Material:</b> Steel</li> <li><b>Details:</b> Steel, zinc coated</li> <li><b>Items supplied:</b> Without mounting hardware</li> <li><b>Suitable for:</b> GR18, V180-2, V18, W15, Z1, Z2</li> </ul>	BEF-WN-M18	5308446
reflectors and optics			
	<ul style="list-style-type: none"> <li><b>Description:</b> Fine triple reflector, screw connection, suitable for laser sensors</li> <li><b>Dimensions:</b> 52 mm 62 mm</li> <li><b>Ambient operating temperature:</b> -30 °C ... +65 °C</li> </ul>	P250F	5308843

## 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](http://www.sick.com)