



DATA SHEET

VL18L-3P344

V18
Photoelectric sensors

SICK

Sensor Intelligence



Illustration may differ

PHOTOELECTRIC SENSORS

VL18L-3P344

ORDERING INFORMATION

Type	part no.
VL18L-3P344	6027597

Further device versions and accessories at www.sick.com/V18



DETAILED TECHNICAL DATA

FEATURES

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

¹⁾ Reflector P250F.

MECHANICS/ELECTRONICS

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

¹⁾ Without load.

²⁾ Signal transit time with resistive load.

³⁾ Do not bend below 0 °C.

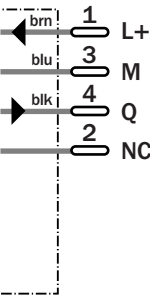
Ambient temperature, storage	-25 °C ... +70 °C
UL File No.	NRKH.E181493, CDRH-conform (0312012-00)

- ¹⁾ Without load.
- ²⁾ Signal transit time with resistive load.
- ³⁾ Do not bend below 0 °C.

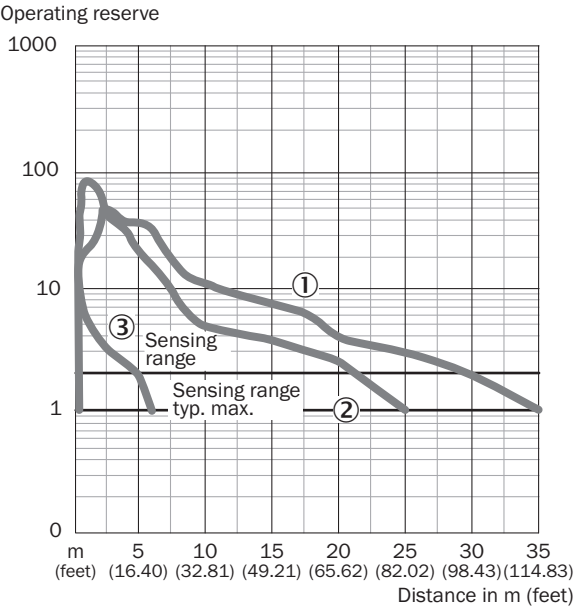
CERTIFICATES

EU declaration of conformity	✓
China RoHS	✓
China Compulsory Product Certification (CCC) ex-empt	✓
cULus certificate	✓

CONNECTION DIAGRAM

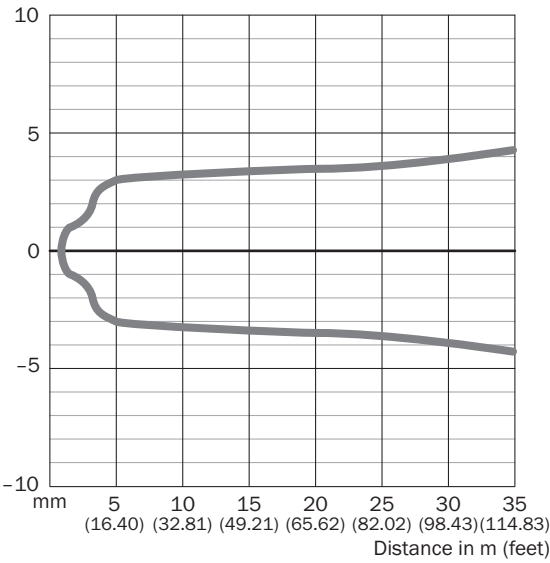


CHARACTERISTIC CURVE

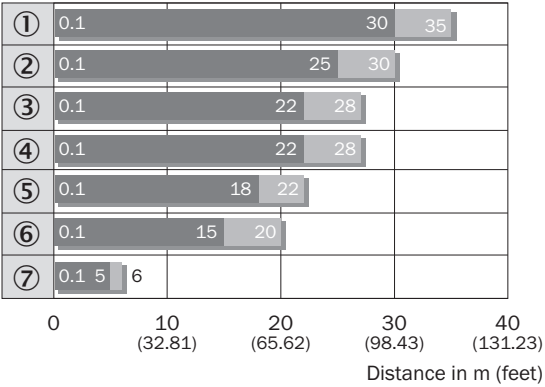


- ① Reflector P250F
- ② Reflector PL80A, P250
- ③ Reflective tape Diamond Grade

LIGHT SPOT SIZE VL18L



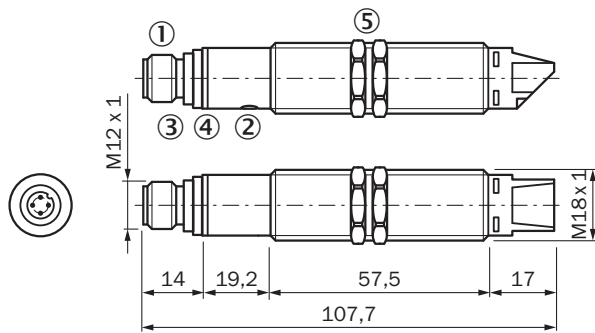
SENSING RANGE DIAGRAM VL18L



■ 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)

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/6027597



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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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