



DATA SHEET

VTE18L-4P324

V18
Photoelectric sensors



Illustration may differ

PHOTOELECTRIC SENSORS

VTE18L-4P324

ORDERING INFORMATION

Type	part no.
VTE18L-4P324	6027418

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



DETAILED TECHNICAL DATA

FEATURES

Functional principle	Photoelectric proximity sensor
Functional principle detail	Energetic
Dimensions (W x H x D)	18 mm x 18 mm x 97.7 mm
Housing design (light emission)	Cylindrical
Housing length	97.7 mm
Thread diameter (housing)	M18 x 1
Optical axis	Axial
Sensing range max.	0 mm ... 400 mm ¹⁾
Sensing range	5 mm ... 300 mm
Type of light	Visible red light
Light source	Laser ²⁾
Light spot size (distance)	Ø 8 mm (300 mm)
Wave length	650 nm
Laser class	1 (IEC 60825-1) ³⁾
Laser power output	0.4 mW
Adjustment	Cable, Single teach-in button (Sensing range, Sensing range) ^{4) 5)}
Special feature	Focused optics
Special applications	Detecting small objects

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

²⁾ Average service life: 100,000 h at T_u = +25 °C.

³⁾ Do not intentionally look into the laser beam. Never point the laser beam at people's eyes.

⁴⁾ Electronically via control input C (0 V).

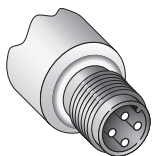
⁵⁾ Manual, via teach-in button.

MECHANICS/ELECTRONICS

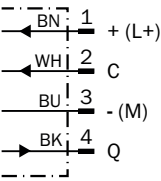
Supply voltage U_B	10 V DC ... 30 V DC ¹⁾
Ripple	$\pm 10\%$ ²⁾
Current consumption	30 mA ³⁾
Switching output	PNP
Switching mode	Light/dark switching
Switching mode selector	Selectable via control input C
Output current I_{max}	≤ 100 mA
Response time	≤ 0.625 ms ⁴⁾
Switching frequency	800 Hz ⁵⁾
Connection type	Male connector M12, 4-pin
Circuit protection	A ⁶⁾ B ⁷⁾ C ⁸⁾ D ⁹⁾
Protection class	III
Weight	60 g
Housing material	Metal, Nickel-plated brass/PC
Optics material	Plastic, PC with protective glass pane
Enclosure rating	IP67
Special feature	Focused optics
Ambient operating temperature	-15 °C ... +55 °C
Ambient temperature, storage	-25 °C ... +70 °C
UL File No.	NRKH.E181493, CDRH-conform (0312012-00)

¹⁾ Limit values.²⁾ May not fall below or exceed U_V tolerances.³⁾ Without load.⁴⁾ Signal transit time with resistive load.⁵⁾ With light/dark ratio 1:1.⁶⁾ A = V_E connections reverse-polarity protected.⁷⁾ B = inputs and output reverse-polarity protected.⁸⁾ C = interference suppression.⁹⁾ D = outputs overcurrent and short-circuit protected.**CERTIFICATES**

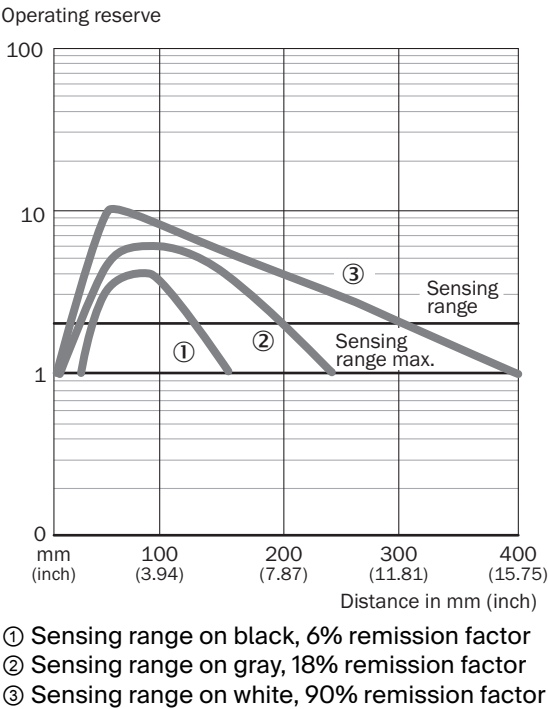
EU declaration of conformity	✓
China RoHS	✓
China Compulsory Product Certification (CCC) exempt	✓
cULus certificate	✓

CONNECTION TYPE

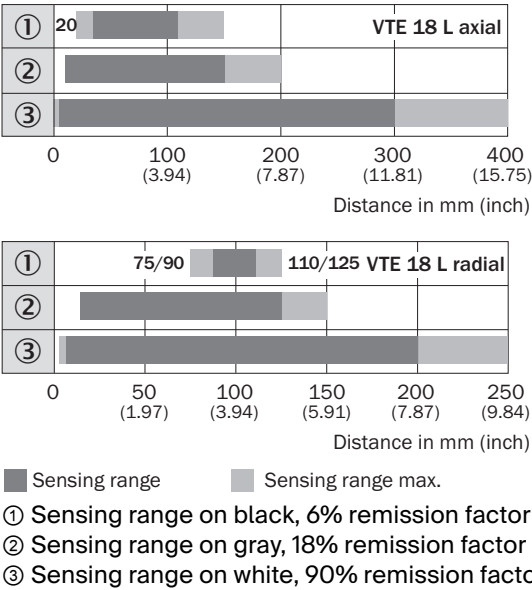
CONNECTION DIAGRAM CD-099



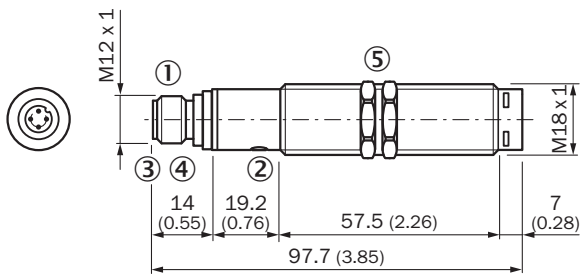
CHARACTERISTIC CURVE



SENSING RANGE DIAGRAM VTE18L



DIMENSIONAL DRAWING AXIAL



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/6027418



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SICK AT A GLANCE

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