



Photoelectric sensors V18 Laser, Photoelectric proximity sensor, energetic

VTE18L-4N344



Model Name > **VTE18L-4N344**
Part No. > **6027424**



Illustration may differ

At a glance

- Laser LED enclosed in a cylindrical M18 housing
- Sensing distance of 250 mm or 400 mm
- Laser class 1
- Fast response time
- Adjustable sensitivity via teach-in pushbutton or control input C

Your benefits

- Lowest-cost laser sensor in M18 cylindrical housing saves installation costs
- Time-saving installation and alignment with highly visible light spot
- Laser class 1 does not require increased safety measures or markings, reducing installation costs
- Fast response time ensures reliable object detection at high speeds and increases machine throughput



Features

Sensor/detection principle:	Photoelectric proximity sensor, energetic
Housing design (light emission):	Cylindrical, angled, straight
Housing length:	107.7 mm
Thread diameter (housing):	M18 x 1
Optical axis:	Radial
Sensing range max.:	2 mm ... 250 mm ¹⁾
Sensing range:	5 mm ... 200 mm
Type of light:	Visible red light
Light source:	Laser ²⁾
Light spot (distance):	5 mm (200 mm)
Laser class:	1 (IEC 60825-1)
Wave length:	650 nm
Sensitivity adjustment:	Electronic, via control input C (0 V) manual, via teach-in button

¹⁾ Object with 90 % reflectance (referred to standard white DIN 5033) ²⁾ Average service life of 100,000 h at T_A = +25 °C

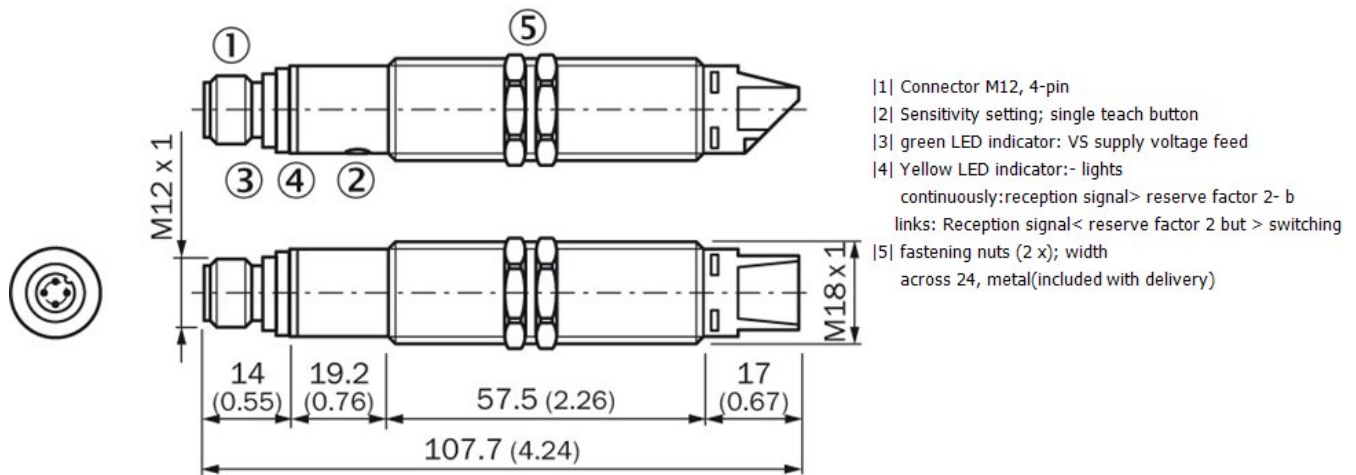
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	≤ 10 % ²⁾
Power consumption:	≤ 30 mA ³⁾
Output type:	NPN, Light/dark-switching, Selectable via control input C

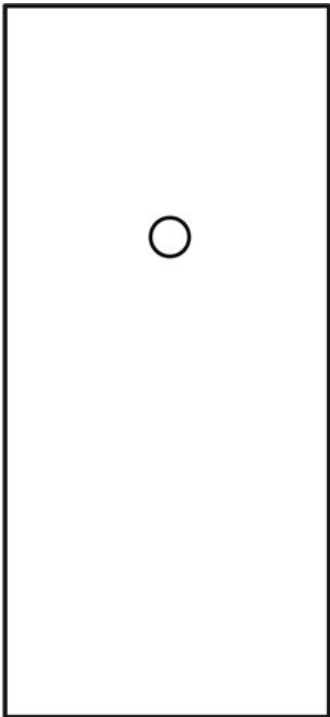
Output current I _{max} :	≤ 100 mA
Response time:	≤ 0.625 ms ⁴⁾
Switching frequency:	800 Hz ⁵⁾
Connection type:	Connector M12, 4-pin
Circuit protection:::	A, B, C, D ⁶⁾ ⁷⁾ ⁸⁾ ⁹⁾
Protection class:	III
Weight:	60 g
Housing material:	Nickel-plated brass/PC
Optics material:	PC with protective glass pane
Enclosure rating:	IP 67
Special feature:	Focused optics
Ambient operating temperature:	-15 °C ... 55 °C
Ambient storage temperature:	-25 °C ... 70 °C
UL File-No.:	UL No. NRKH.E181493, CDRH-Konform (0312012-00)

¹⁾ Limit values ²⁾ May not exceed or fall short of V_S tolerances ³⁾ Without load ⁴⁾ Signal transit time with resistive load ⁵⁾ With light/dark ratio 1:1 ⁶⁾ A = V_S
connections reverse-polarity protected ⁷⁾ B = interference suppression ⁸⁾ D = outputs overcurrent and short-circuit protected ⁹⁾ D = inputs and output reverse-polarity protected

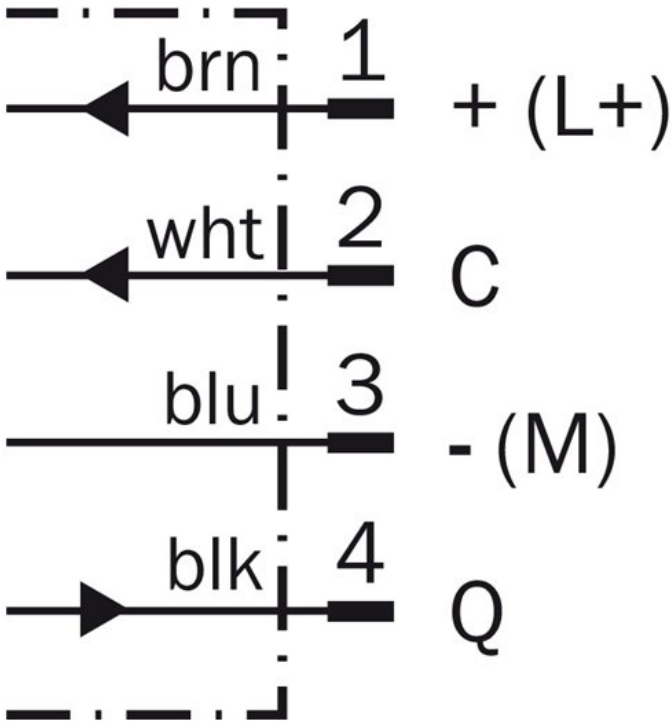
Dimensional drawing



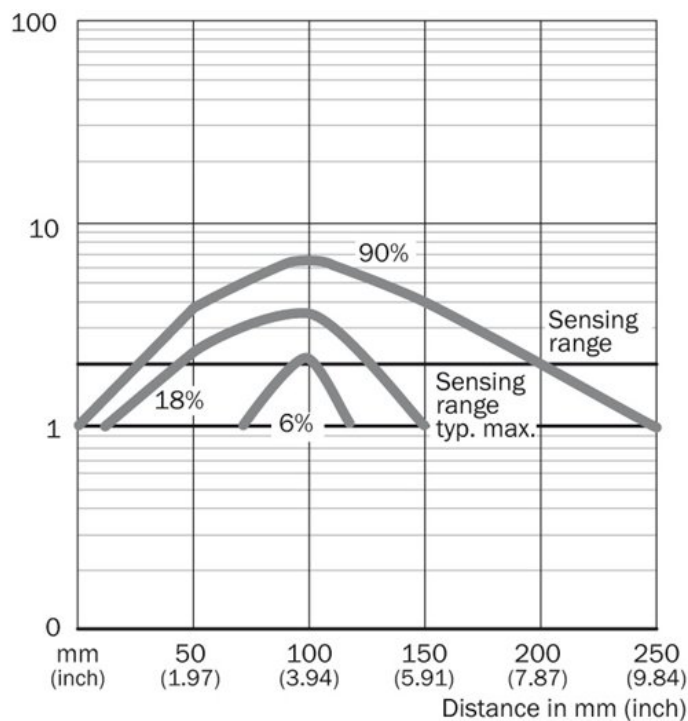
Adjustments possible



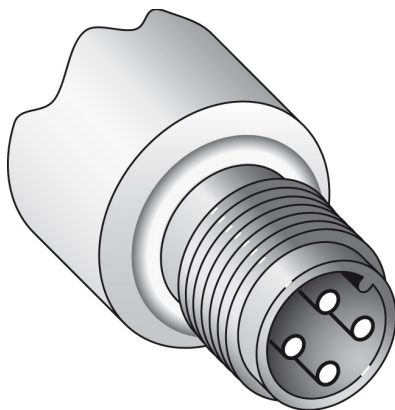
Connection diagram



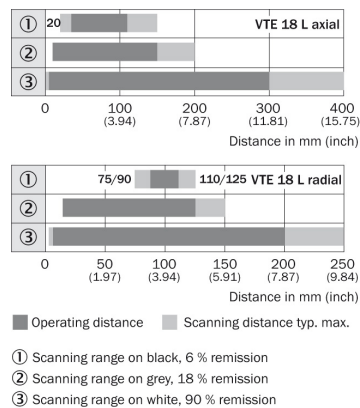
Characteristic curve



Connection type



Sensing range diagram



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