



Photoelectric sensors V18 Laser, Through-beam photoelectric sensor

VSE18L-4P344



Model Name > VSE18L-4P344
Part No. > 6027935



At a glance

- Laser emitter LED enclosed in a cylindrical M18 housing
- Sensing distance up to 60 m
- Fast response time
- Straight or right-angle housing
- Durable metal housing
- IP 67
- Small visible light spot to detect small objects
- Laser class 1

Illustration may differ

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:	Through-beam photoelectric sensor
Housing design (light emission):	Cylindrical, angled, straight
Housing length:	107.7 mm
Thread diameter (housing):	M18 x 1
Optical axis:	Radial
Sensing range max.:	0 m ... 60 m
Sensing range:	0 m ... 50 m
Type of light:	Visible red light
Light source:	Laser ¹⁾
Light spot (distance):	40 mm (50 m)
Laser class:	1 (IEC 60825-1)
Wave length:	650 nm
Sensitivity adjustment:	Potentiometer, 270°
Angle of dispersion:	0.06 °

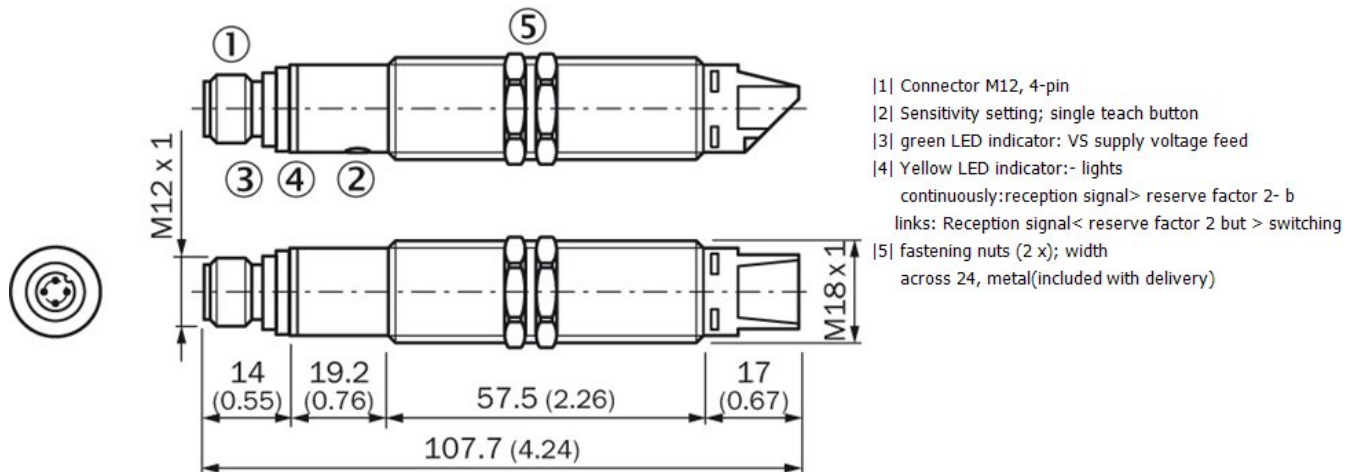
¹⁾ Average service life of 100,000 h at T_A = +25 °C

Mechanics/electronics

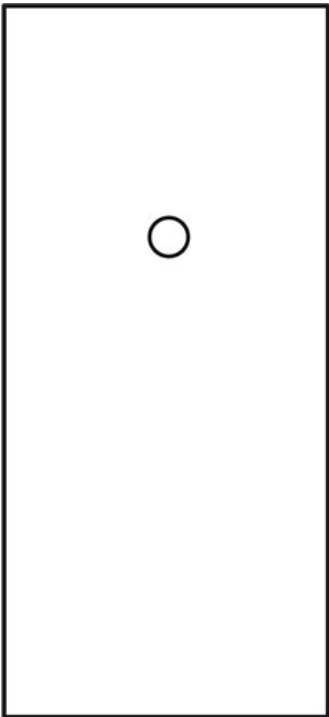
Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	$\leq 10\%$ ²⁾
Power consumption:	$\leq 25\text{ mA}$ ³⁾
Output type:	PNP, Light/dark-switching, Selectable via L/D control wire
Output current I _{max} :	$\leq 100\text{ mA}$ ⁴⁾
Response time:	$\leq 0.5\text{ ms}$ ⁴⁾
Switching frequency:	1,000 Hz ⁵⁾
Angle of reception:	0.08 °
Connection type:	Connector M12, 4-pin
Circuit protection:::	A, B, C, D ⁶⁾ ⁷⁾ ⁸⁾ ⁹⁾
Protection class:	III
Weight:	120 g
Housing material:	Nickel-plated brass/PC
Optics material:	PC with protective glass pane
Enclosure rating:	IP 67
Test input sender off:	TE to 0 V
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

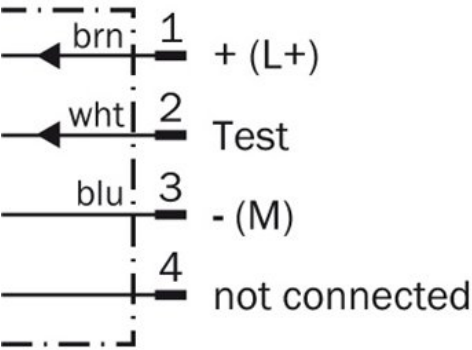


Adjustments possible

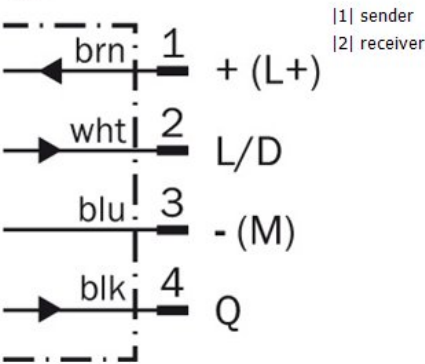


Connection diagram

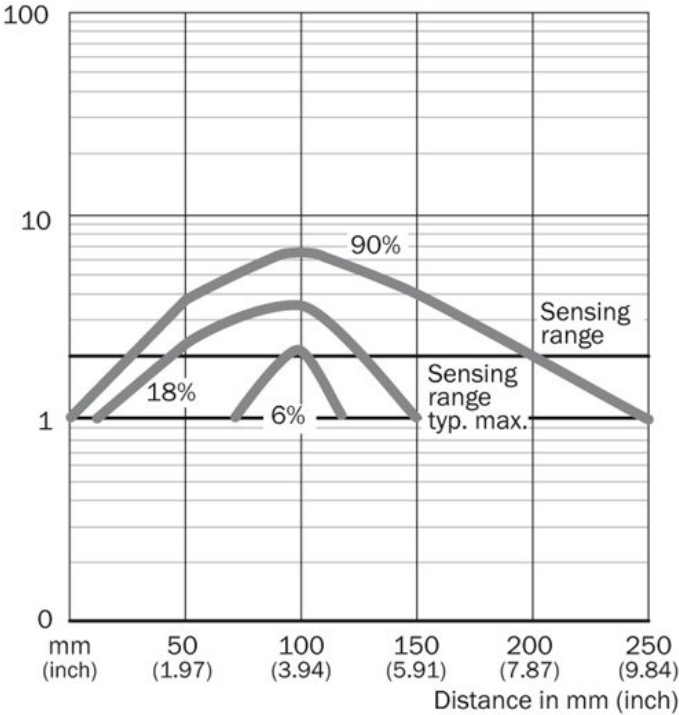
①



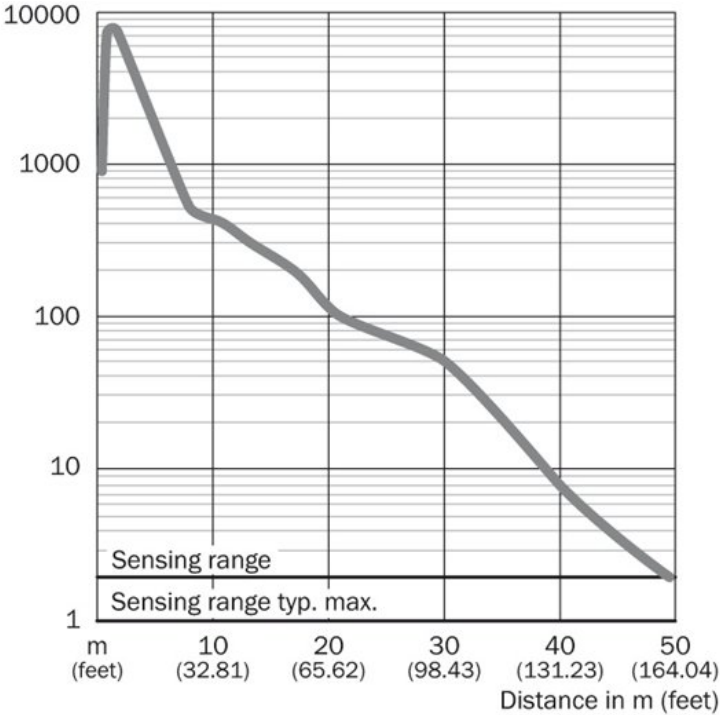
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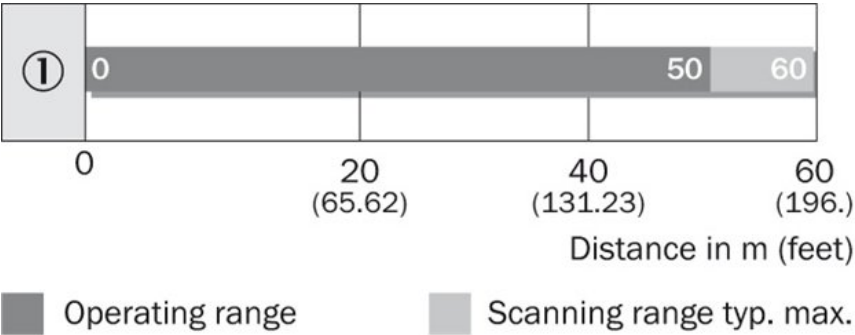
Characteristic curve



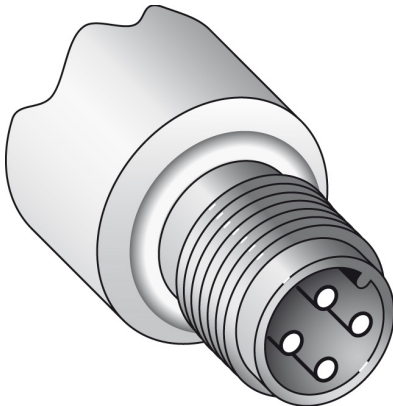
Characteristic curve



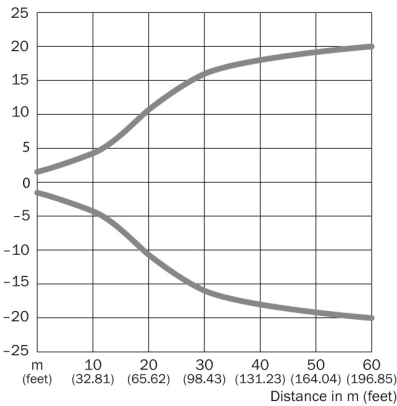
Sensing range diagram



Connection type



Light spot size



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