



Photoelectric sensors  
V18, Through-beam photoelectric sensor

VS/VE18-3P3640



**Model Name** > VS/VE18-3P3640  
**Part No.** > 6013743



Illustration may differ

**At a glance**

- Cylindrical M18 housing
- Sensing distance up to 20 m
- 3- or 4-wire
- Straight or right-angle housing
- Metal or plastic housing

**Your benefits**

- Simple, standardized design ensures easy mounting, alignment and replacement
- Compact, space-saving design easily fits in tight application spaces



**Features**

Sensor/detection principle:	Through-beam photoelectric sensor
Housing design (light emission):	Cylindrical, straight, straight
Housing length:	78 mm
Thread diameter (housing):	M18 x 1
Optical axis:	axial
Sensing range max.:	0 m ... 20 m
Sensing range:	0 m ... 14 m
Type of light:	Infrared light
Light source:	LED <sup>1)</sup>
Light spot diameter (distance):	700 mm (14 m)
Angle of dispersion:	2.8 °

<sup>1)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C

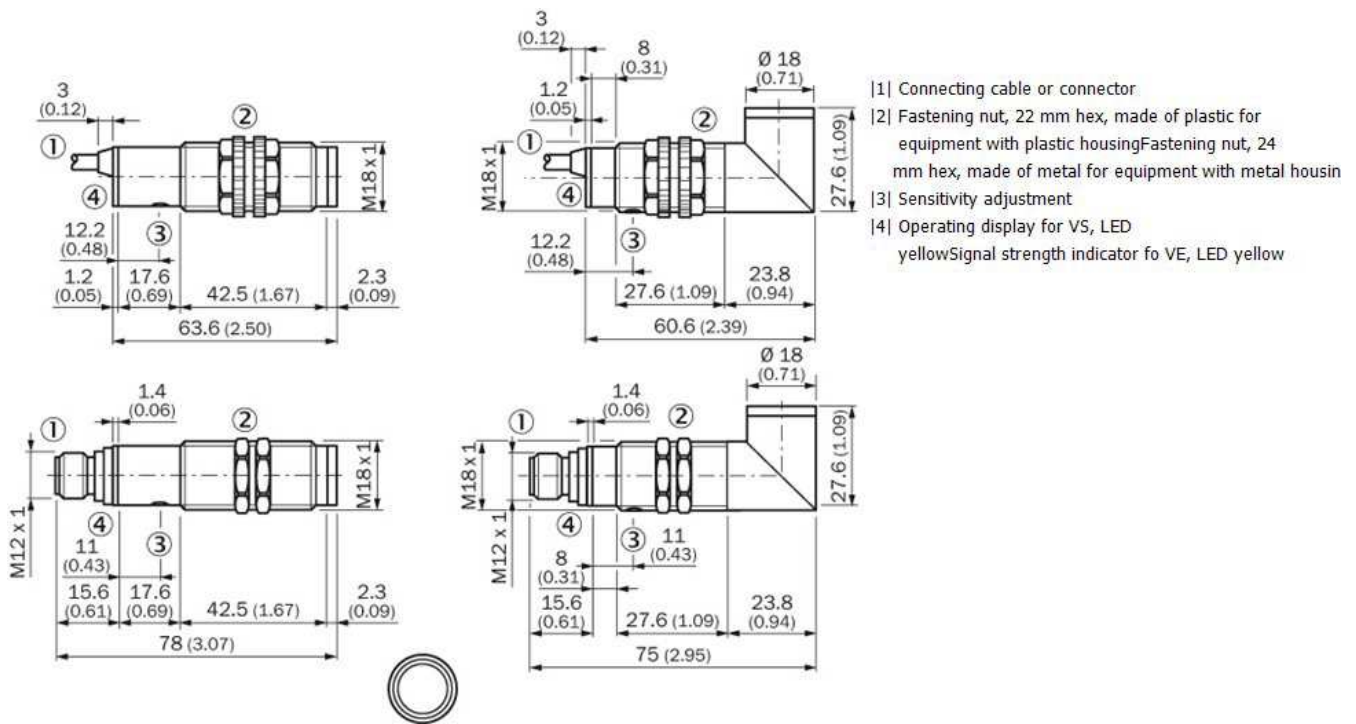
**Mechanics/electronics**

Supply voltage:	10 V DC ... 30 V DC <sup>1)</sup>
Residual ripple:	≤ 10 % <sup>2)</sup>
Power consumption:	≤ 30 mA <sup>3)</sup>
Output type:	PNP, Dark-switching, open collector
Output current I <sub>max.</sub> :	100 mA
Response time:	≤ 2 ms <sup>4)</sup>
Switching frequency:	250 Hz <sup>5)</sup>
Electrical connection:	Connector M12, 4-pin
Circuit protection:::	A, B, C, D <sup>6) 7) 8) 9)</sup>
Protection class:	III

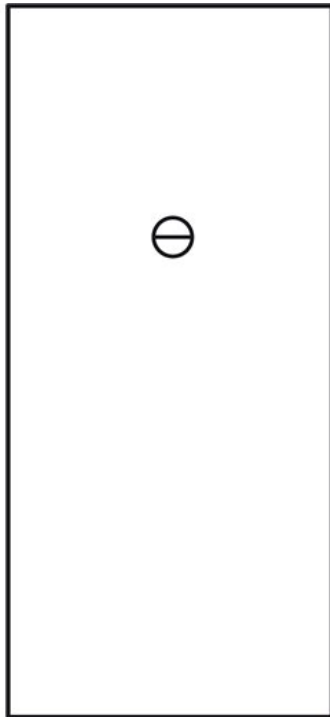
Weight: 200 g  
Housing material: PBT/PC  
Enclosure rating: IP 67  
Test input sender off: TE to 0 V  
Ambient temperature operation: -25 °C ... 70 °C  
UL File-No.: UL No. NMFT2.E175606  
Switching mode characteristic: Open collector

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 = inputs and output reverse-polarity protected 8) C = interference suppression 9) D = outputs overcurrent and short-circuit protected

### Dimensional drawing

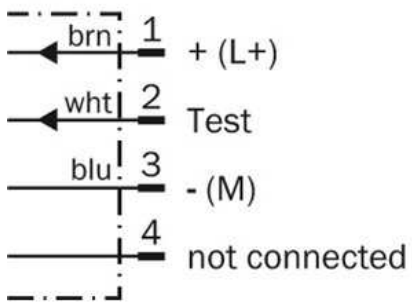


Adjustments possible

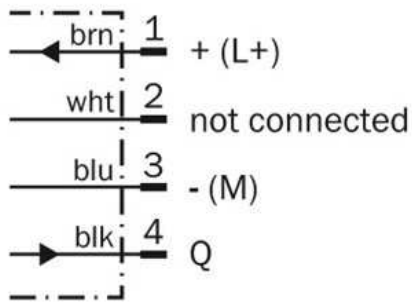


Connection diagram

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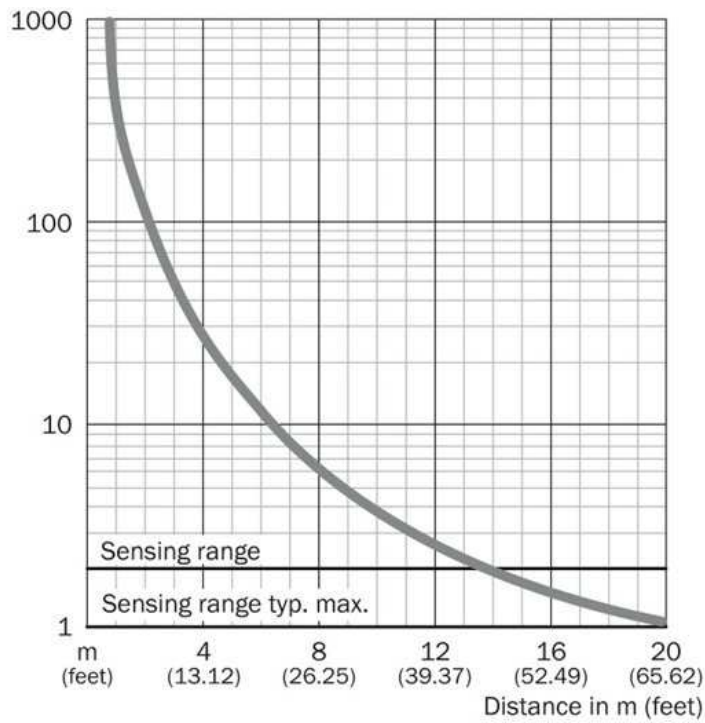


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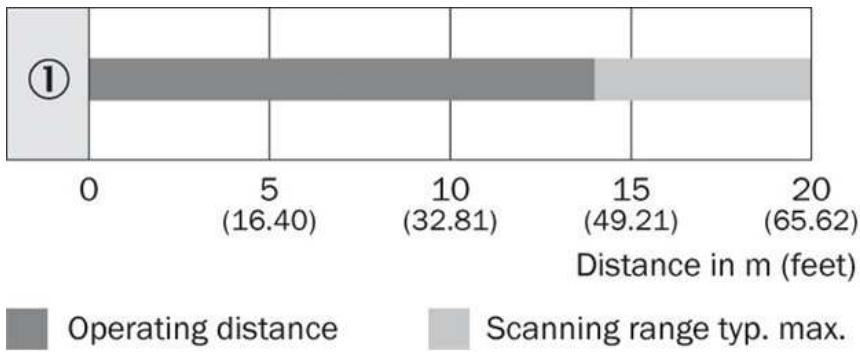


|1| sender  
|2| receiver

### Characteristic curve



### Sensing range diagram



Connection type

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