



## Photoelectric sensors V18, Photoelectric proximity sensor, Background blinking

VTF18-3F5740



**Model Name** > [VTF18-3F5740](#)  
**Part No.** > [6013044](#)



**At a glance**

- Cylindrical M18 housing
- Sensing distance up to 50 mm or 100 mm
- Precise background blanking
- 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:	Photoelectric proximity sensor, Background blanking
Housing design (light emission):	Cylindrical, straight, straight
Housing length:	78 mm
Thread diameter (housing):	M18 x 1
Optical axis:	Axial
Sensing range max.:	0 mm ... 50 mm <sup>1)</sup>
Sensing range:	0 mm ... 45 mm
Type of light:	Infrared light
Light source:	LED <sup>2)</sup>
Light spot (distance):	3 mm (25 mm)
Sensitivity adjustment:	Potentiometer, 270°

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

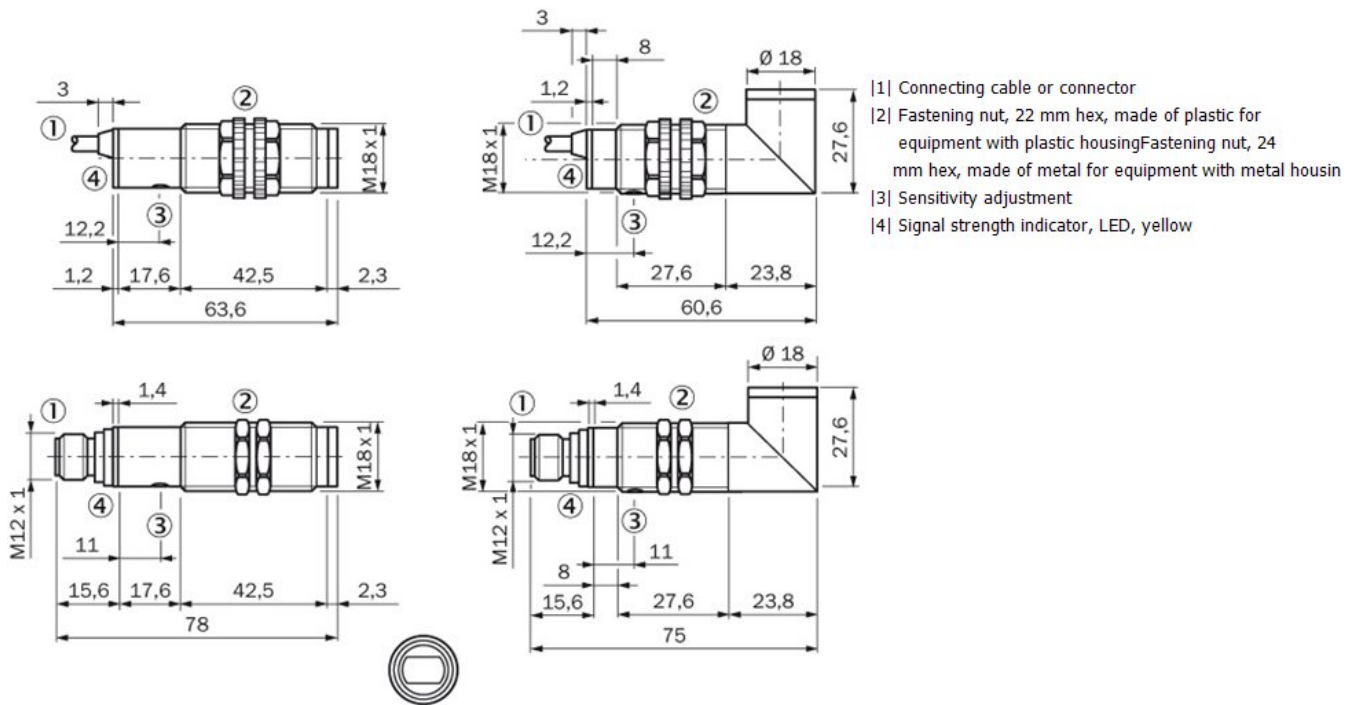
**Mechanics/electronics**

Supply voltage:	10 V DC ... 30 V DC <sup>1)</sup>
Ripple:	≤ 10 % <sup>2)</sup>
Power consumption:	≤ 30 mA <sup>3)</sup>
Switching output:	PNP, Light-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>
Connection type:	Connector M12, 4-pin
Circuit protection:::	A, B, C, D <sup>6) 7) 8) 9)</sup>

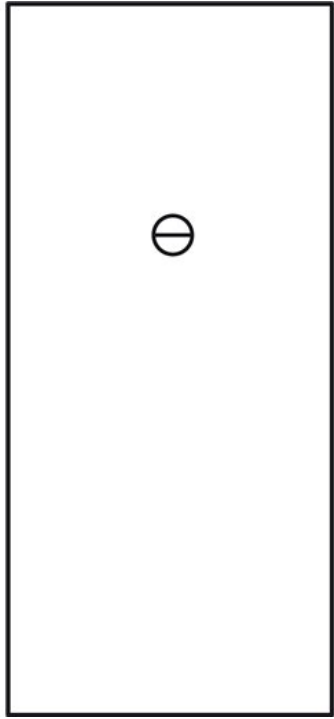
Protection class: III  
 Weight: 100 g  
 Housing material: PBT/PC  
 Optics material: PMMA  
 Enclosure rating: IP 67  
 Special feature: Focused optics  
 Ambient operating temperature: -25 °C ... 70 °C  
 UL File-No.: UL No. NMFT2.E175606

1) Limit values    2) May not exceed or fall short of  $V_S$     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

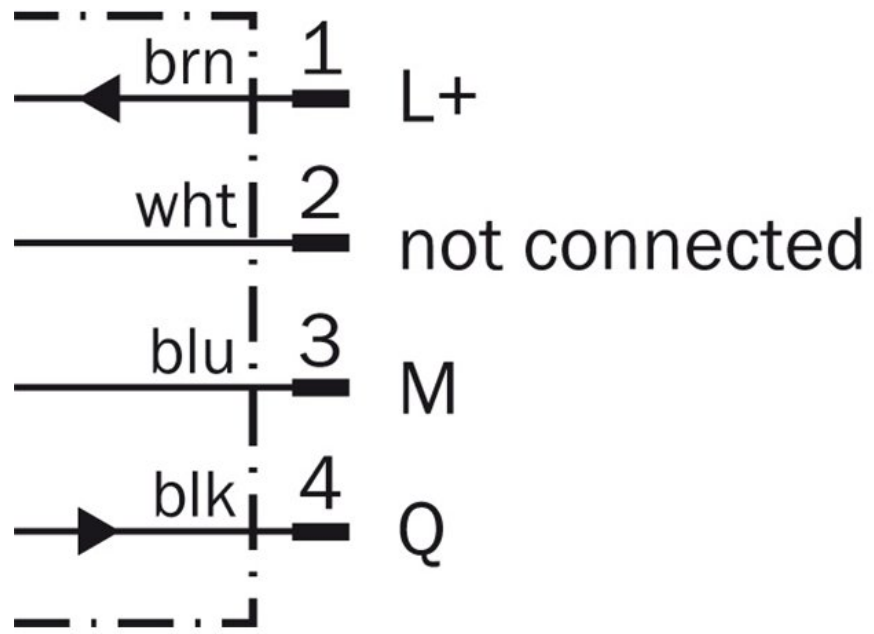
### Dimensional drawing



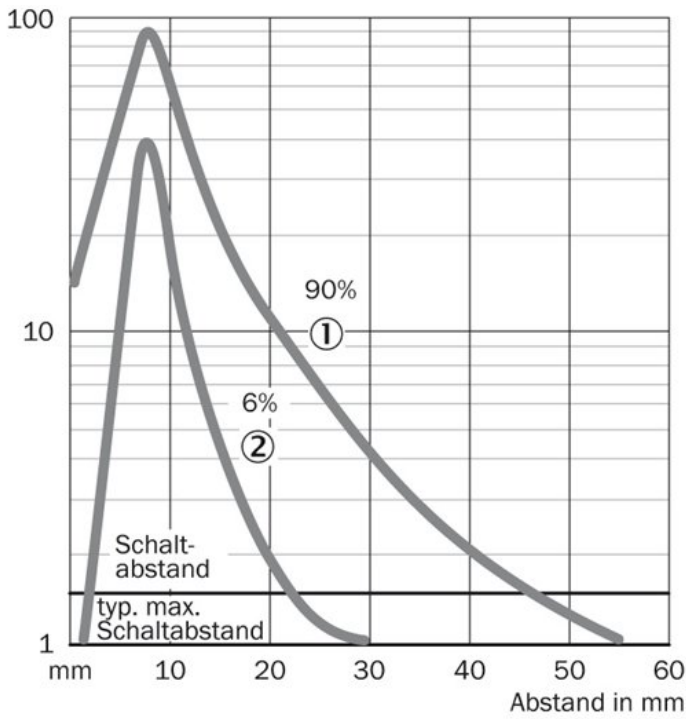
Adjustments possible



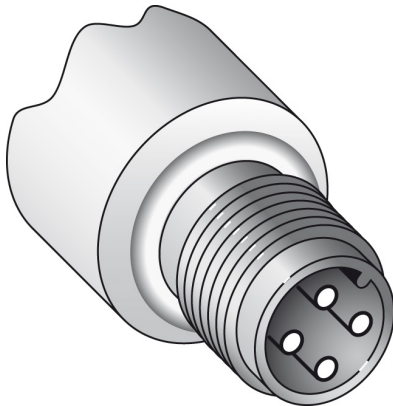
Connection diagram



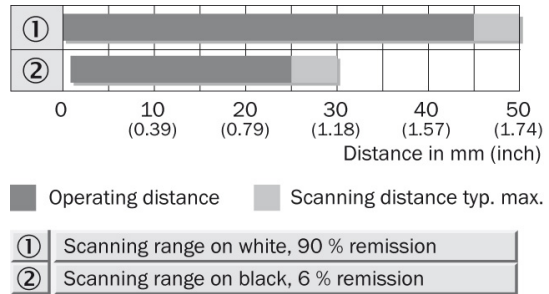
### Characteristic curve



### Connection type



### Sensing range diagram



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