



## Photoelectric sensors

VT18-204470

**Model Name** > [VT18-2O4470](#)

**Part No.** > [6012019](#)



### At a glance

- Cylindrical M18 housing
- Three adjustable sensing distances of 100 mm, 200 mm or 400 mm
- Voltage supply of 20 to 253 V AC with TRIAC output

### Your benefits

- Simple, standardized design ensures easy mounting, alignment and replacement
- For connection to alternating voltage



### Features

Sensor/detection principle:	Photoelectric proximity sensor, Background suppression
Housing design (light emission):	straight
Housing length:	92 mm
Thread diameter (housing):	M18 x 1
Optical axis:	axial
Sensing range max.:	2 mm ... 100 mm <sup>1)</sup>
Sensing range.:	100 mm <sup>2) 3)</sup>
Type of light:	Infrared light
Light source:	LED <sup>4)</sup>
Light spot (distance):	12 mm (130 mm)
Angle of dispersion:	3.5 °
Adjustment:	no/fix

<sup>1)</sup> Object with 90 % reflectance (referred to standard white DIN 5033) <sup>2)</sup> Fix <sup>3)</sup> Background blanking at 115 mm <sup>4)</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:	NPN, light/dark-switching PNP
Output current I <sub>max.</sub> :	100 mA
Response time:	≤ 6.25 ms <sup>4)</sup>
Switching frequency:	80 Hz with light/dark ratio 1:1 <sup>5)</sup>
Electrical connection:	Connector M12, 4-pin

Circuit protection::::

A  
B  
C  
D 6) 7) 8) 9)

Protection class:

III

Weight:

30 g

Housing material:

PBT/PC

Optics material:

PMMA

Enclosure rating:

IP 67

Ambient temperature operation:

-25 °C ... 70 °C

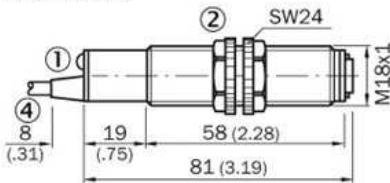
Ambient storage temperature:

-25 °C ... 75 °C

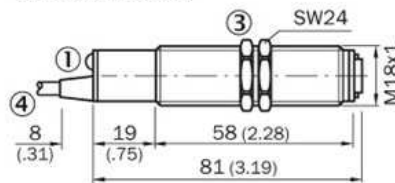
1) Limit values 2) May not exceed or fall short of  $V_S$  tolerances 3) Without load 4) Signal transit time with resistive load 5) With light/dark ratio 1:1 6)  $A = V_S$   
connections reverse-polarity protected 7) B = inputs and output reverse-polarity protected 8) C = interference suppression 9)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

## Dimensional drawing

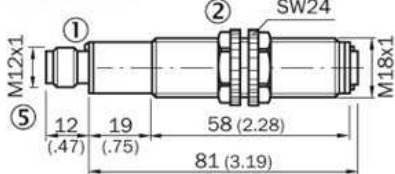
VT18-2 04470



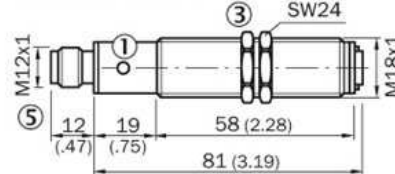
VT18-2 04470 S01



VT18-2 04470



VT18-2 04470 S01



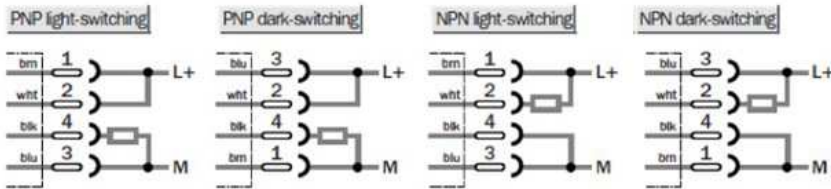
- |1| LED indicator red: Light received
- |2| fastening nuts (2 x), width across 24 mm, plastic, (included)
- |3| fastening nuts (2 x); width across 24, metal (included with delivery)
- |4| Connection cable
- |5| Connector M12, 4-pin



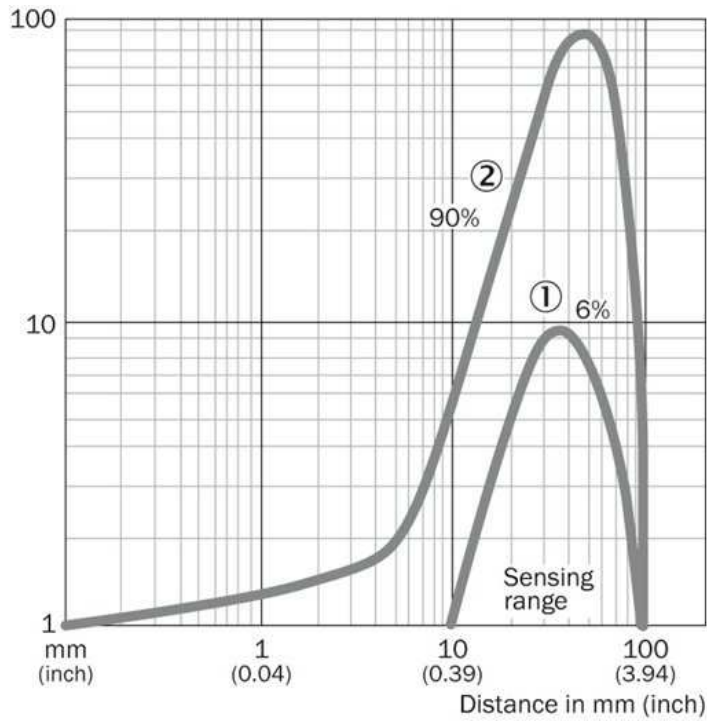
- ① Red LED signal strength indicator
- ② Locking nut made of plastic (SW 24) – included
- ③ Locking nut made of metal (SW 24) – included
- ④ Connecting cable
- ⑤ Equipment plug M 12, 4 pin

All dimension in mm (inch)

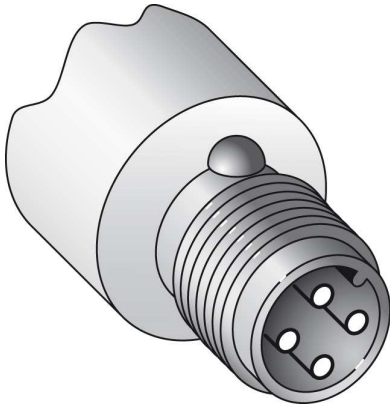
## Connection diagram



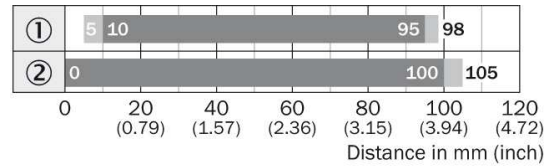
## Characteristic curve



## Connection type



## Sensing range diagram



■ Sensing range      ■ Sensing range typ. max.

- ① Sensing range on black, 6 % remission
- ② Sensing range on white, 90 % remission

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