



Photoelectric sensors  
V18, Photoelectric proximity sensor, energetic

VTE18-3P2212



**Model Name** > [VTE18-3P2212](#)  
**Part No.** > [6013399](#)



*Illustration may differ*

**At a glance**

- Cylindrical M18 housing
- Three sensing distances of 200 mm, 400 mm or 800 mm
- 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, energetic |
| Housing design (light emission): | Cylindrical, straight, straight           |
| Housing length:                  | 63.6 mm                                   |
| Thread diameter (housing):       | M18 x 1                                   |
| Optical axis:                    | axial                                     |
| Sensing range max.:              | 3 mm ... 200 mm <sup>1)</sup>             |
| Sensing range:                   | 3 mm ... 170 mm                           |
| Type of light:                   | Infrared light                            |
| Light source:                    | LED <sup>2)</sup>                         |
| Light spot (distance):           | 10 mm (200 mm)                            |
| Sensitivity adjustment:          | Potentiometer, 270°                       |
| Angle of dispersion:             | 2.8 °                                     |

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

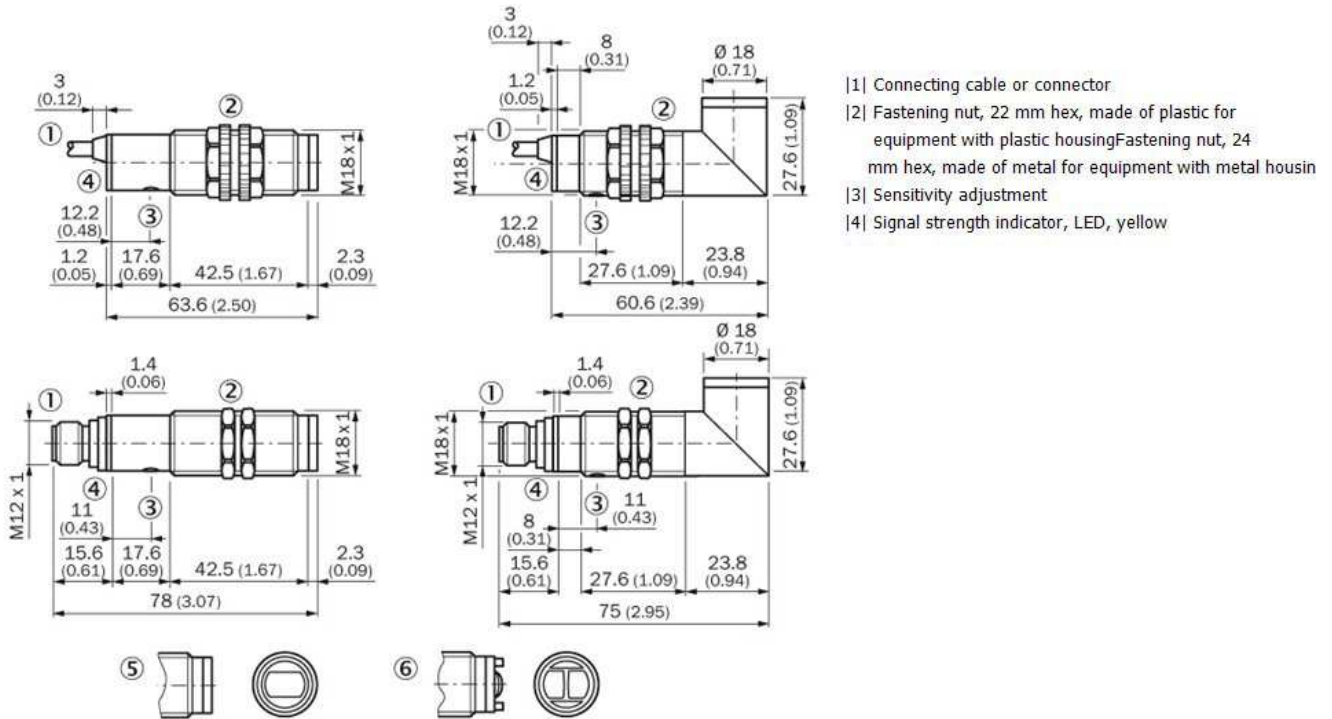
**Mechanics/electronics**

|                                    |                                     |
|------------------------------------|-------------------------------------|
| 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:             | Cable, 3-wire, 2 m <sup>6)</sup>    |
| Cable material:                    | PVC                                 |

|                                |                                    |
|--------------------------------|------------------------------------|
| Conductor cross-section:       | 0.14 mm <sup>2</sup>               |
| Cable diameter:                | 3.1 mm                             |
| Circuit protection:::          | A, B, C, D <sup>7) 8) 9) 10)</sup> |
| Protection class:              | III                                |
| Weight:                        | 120 g                              |
| Housing material:              | Nickel-plated brass                |
| Optics material:               | PMMA                               |
| Enclosure rating:              | IP 67                              |
| Ambient temperature operation: | -25 °C ... 70 °C                   |
| UL File-No.:                   | UL No. NMFT2.E175606               |

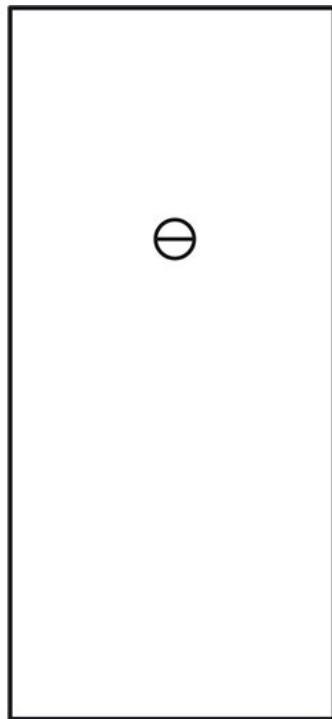
1) Limit values 2) May not exceed or fall short of V<sub>S</sub> tolerances 3) Without load 4) Signal transit time with resistive load 5) With light/dark ratio 1:1 6) Do not bend below 0 °C 7) A = V<sub>S</sub> connections reverse-polarity protected 8) B = inputs and output reverse-polarity protected 9) C = interference suppression 10) D = outputs overcurrent and short-circuit protected

### Dimensional drawing



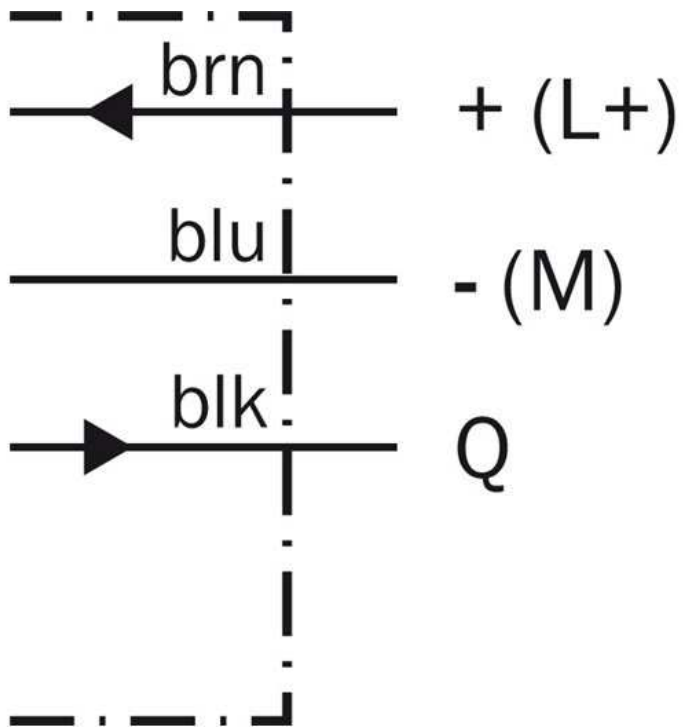
Adjustments possible

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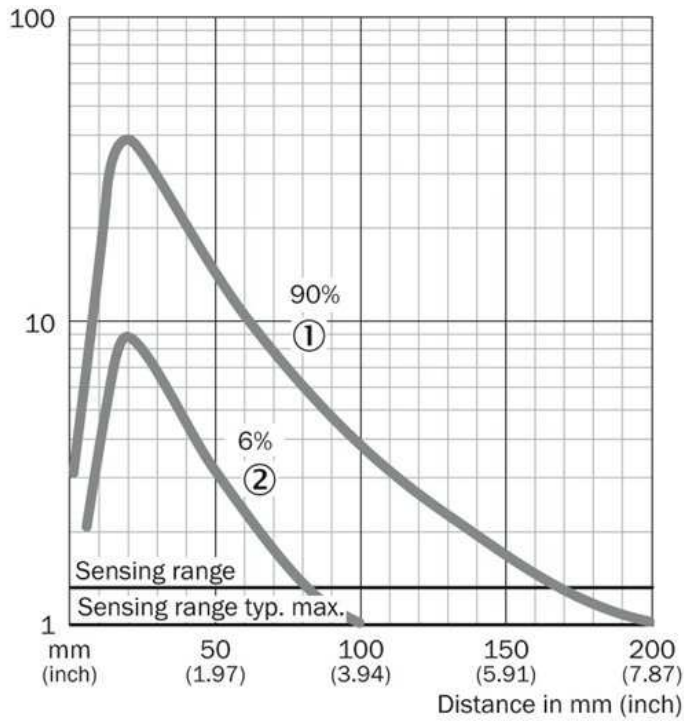


Connection diagram

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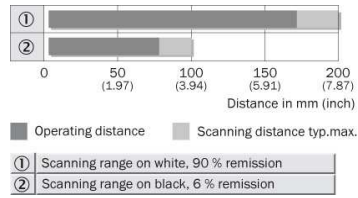
**Characteristic curve**



**Connection type**



**Sensing range diagram**



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