



Photoelectric sensors
V18, Photoelectric proximity sensor, energetic

VTE18-3F2212



Model Name > [VTE18-3F2212](#)
Part No. > [6013402](#)



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, angled, straight |
| Housing length: | 63.6 mm |
| Thread diameter (housing): | M18 x 1 |
| Optical axis: | axial |
| Sensing range max.: | 3 mm ... 200 mm ¹⁾ |
| Sensing range: | 3 mm ... 170 mm |
| Type of light: | Infrared light |
| Light source: | LED ²⁾ |
| Light spot (distance): | 10 mm (200 mm) |
| Sensitivity adjustment: | Potentiometer, 270° |
| Angle of dispersion: | 2.8 ° |

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

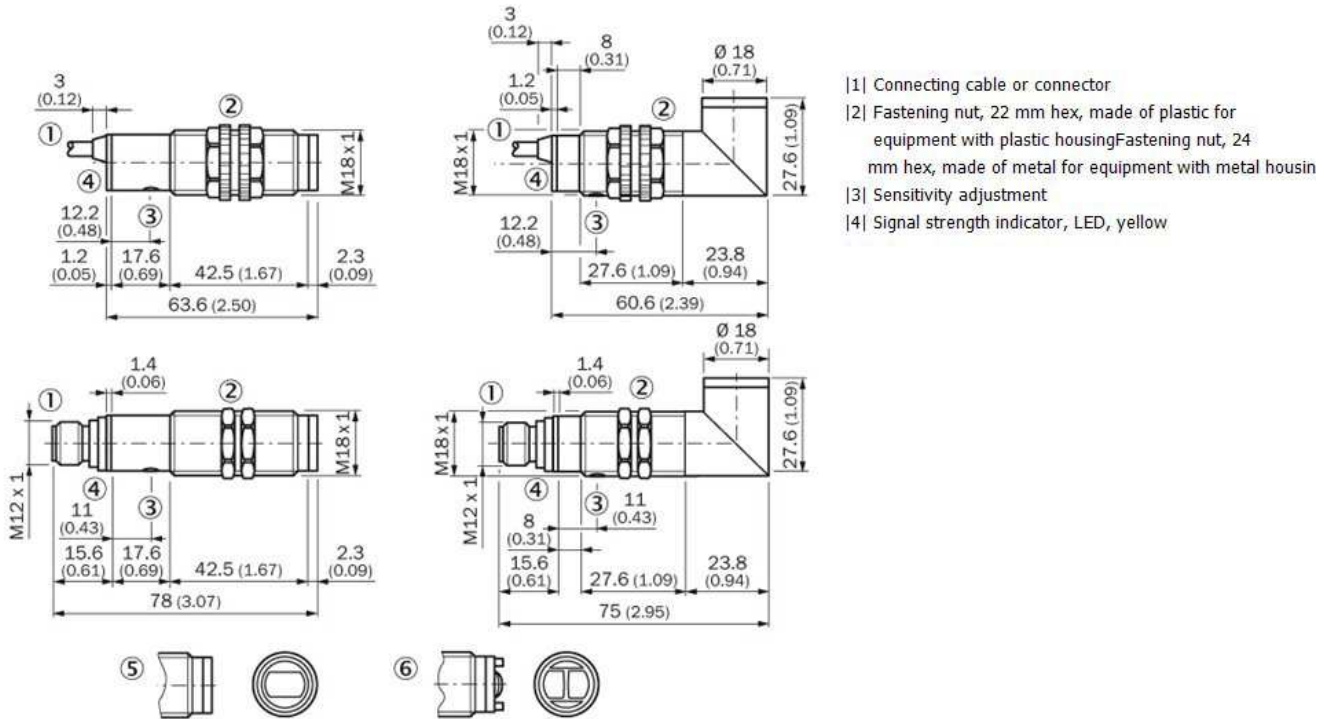
Mechanics/electronics

| | |
|------------------------------------|--------------------------------------|
| Supply voltage: | 10 V DC ... 30 V DC ¹⁾ |
| Residual ripple: | ≤ 10 % ²⁾ |
| Power consumption: | ≤ 30 mA ³⁾ |
| Output type: | PNP, Light-switching, open collector |
| Output current I _{max.} : | 100 mA |
| Response time: | ≤ 2 ms ⁴⁾ |
| Switching frequency: | 250 Hz ⁵⁾ |
| Electrical connection: | Cable, 3-wire, 2 m ⁶⁾ |
| Cable material: | PVC |

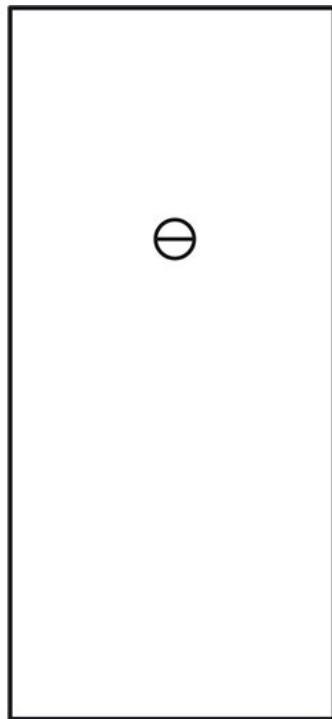
| | |
|--------------------------------|------------------------------------|
| Conductor cross-section: | 0.14 mm ² |
| Cable diameter: | 3.1 mm |
| Circuit protection::: | A, B, C, D ^{7) 8) 9) 10)} |
| Protection class: | III |
| Weight: | 120 g |
| Housing material: | Nickel-plated brass |
| Optics 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_S 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_S connections reverse-polarity protected 8) B = inputs and output reverse-polarity protected 9) C = interference suppression 10) D = outputs overcurrent and short-circuit protected

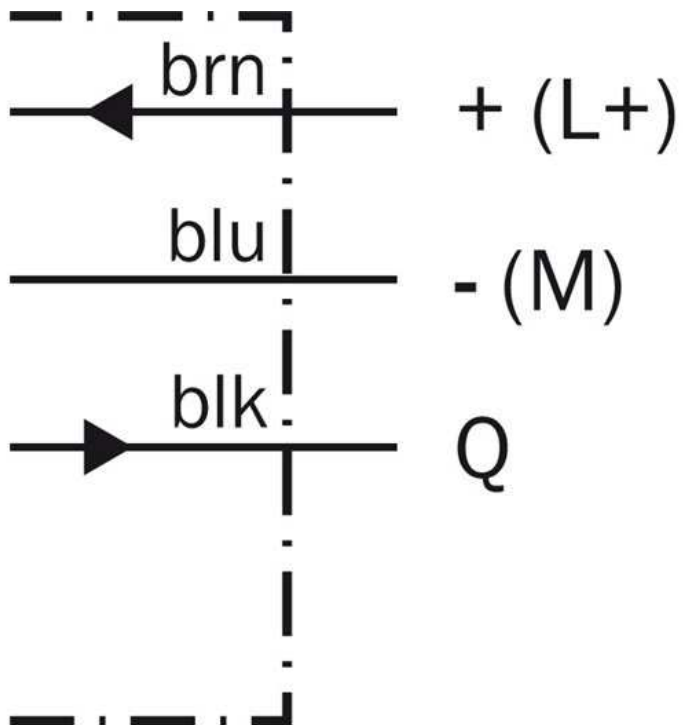
Dimensional drawing



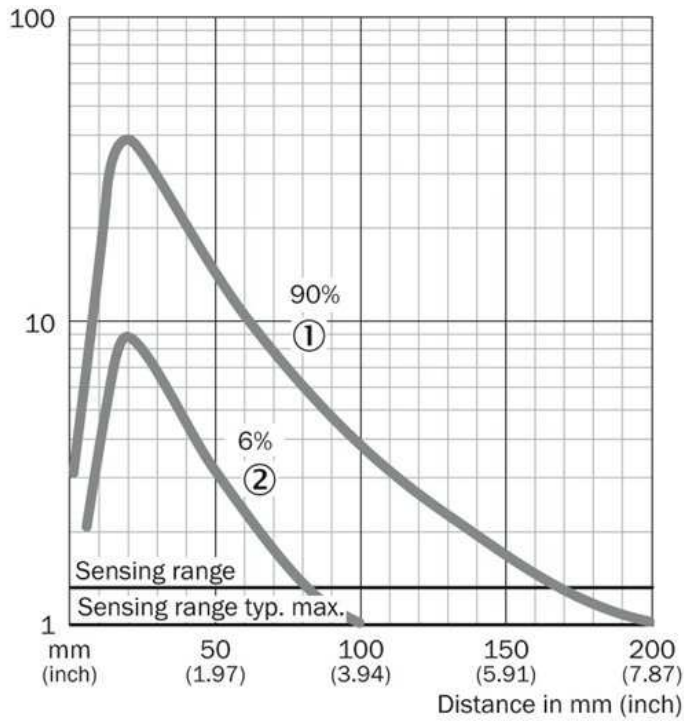
Adjustments possible



Connection diagram



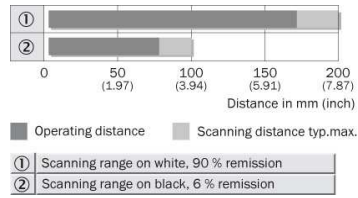
Characteristic curve



Connection type



Sensing range diagram



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