



Photoelectric sensors V180-2, Through-beam photoelectric sensor

VSE180-2P32437



Model Name > VSE180-2P32437
Part No. > 6044035



Illustration may differ

At a glance

- Lowest-cost M18 housing sensor on the market
- Sensing distance up to 28 m
- Bright power and signal LEDs with 360° visibility
- High switching frequencies up to 1000 Hz
- Available in a metal housing for applications in harsh environments
- Optical axis selectively axial or radial (90°)
- Wide product portfolio solves a broad range of applications

Your benefits

- Lowest-cost M18 cylindrical sensor on the market reduces installation costs
- Bright red sender LED simplifies alignment and saves installation time
- Bright power and signal LEDs with 360° visibility offer quick and simple troubleshooting, reducing maintenance time and costs
- The flat and smooth lens reduces the collection of dust and dirt, ensuring safe operation with less maintenance and fewer costs



Features

Sensor/detection principle:	Through-beam photoelectric sensor
Housing design (light emission):	Cylindrical, straight
Housing length:	69.8 mm
Thread diameter (housing):	M18 x 1
Optical axis:	Axial
Sensing range max.:	0 m ... 28 m
Sensing range:	0 m ... 20 m
Type of light:	Visible red light
Light source:	LED ¹⁾
Wave length:	645 nm
Angle of dispersion:	Ca. 5 °
Adjustment:	Potentiometer, 270° ²⁾
Light spot size (distance):	Ø 1,100 mm (20 m)

¹⁾ Average service life of 100,000 h at T_A = +25 °C ²⁾ Receiver

Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	± 10 %

1) Limit values, operation in short-circuit protected network max. 8 A 2) 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) D = outputs overcurrent and short-circuit protected

Technical drawing of the M18x1 adapter (part 1) showing two views: a side view and a front view.

Side View Dimensions:

- Overall length: 62.5 (2.46)
- Mounting hole diameter: 2 (0.08)
- Segment lengths: 60.5 (2.38), 56.8 (2.24), 41.8 (1.65), 34 (1.34), and 2 (0.08)
- Thread: M18x1

Front View Dimensions:

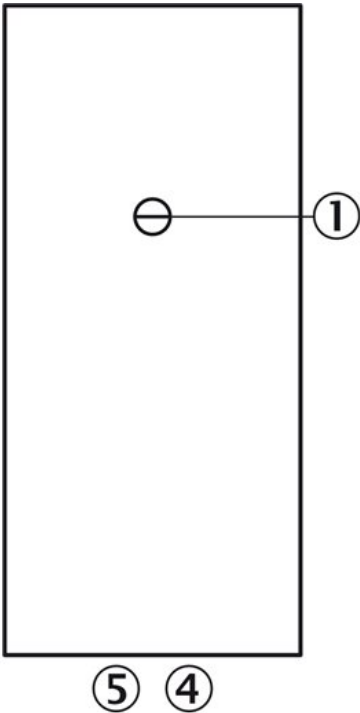
- Overall length: 69.8 (2.75)
- Mounting hole diameter: 9.3 (0.37)
- Segment lengths: 60.5 (2.38), 56.8 (2.24), 41.8 (1.65), 34 (1.34), and 2 (0.08)
- Thread: M18x1

Callouts:

- 1: Mounting hole
- 2: Mounting hole
- 3: Mounting hole
- 4: Mounting hole
- 5: Mounting hole
- 6: Mounting hole

- [1] Connector M12, 4-pin
- [2] Connection cable 2 m
- [3] Sensitivity adjustment 270°
- [4] LED indicator orange
- [5] LED indicator green: strength indicator
- [6] fastening nuts (2 x); width across 22, PC

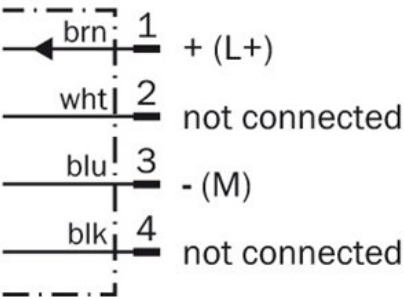
Adjustments possible



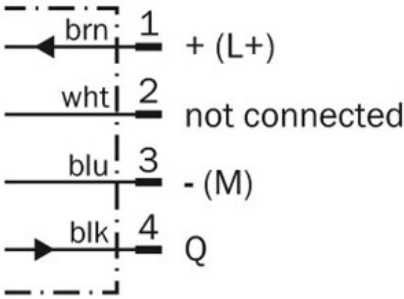
- |3| Sensitivity adjustment 270°
- |4| LED indicator orange: switching output active
- |5| LED indicator green

Connection diagram

①

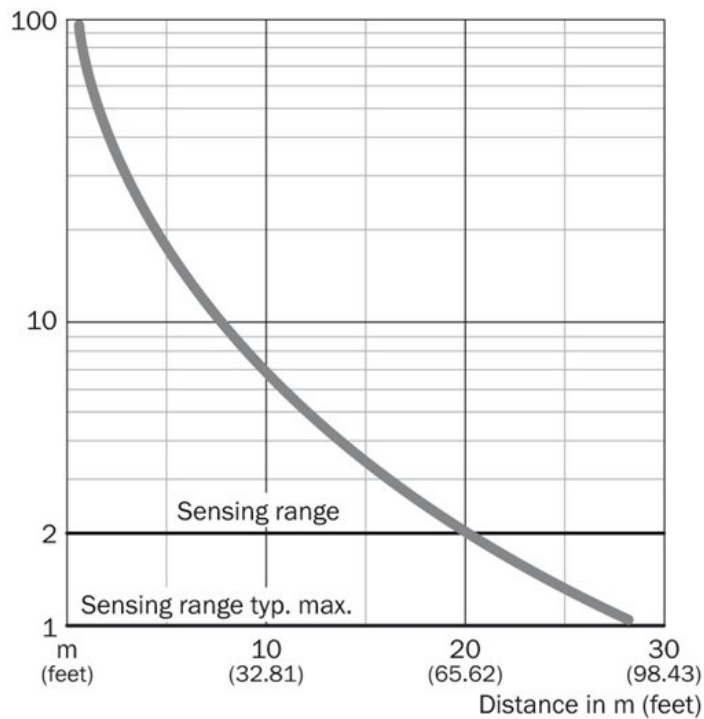


②

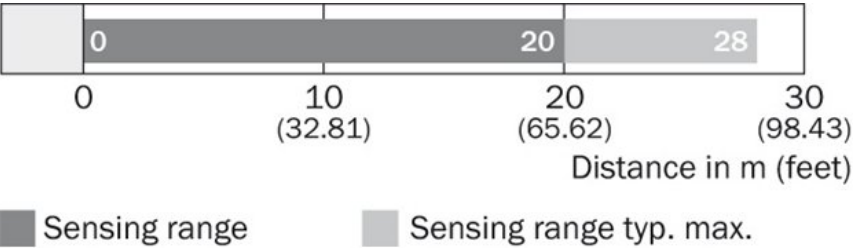


- |1| sender
- |2| receiver

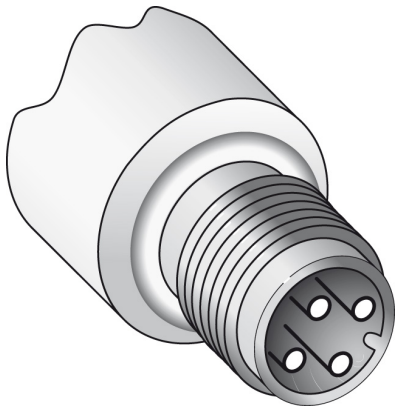
Characteristic curve



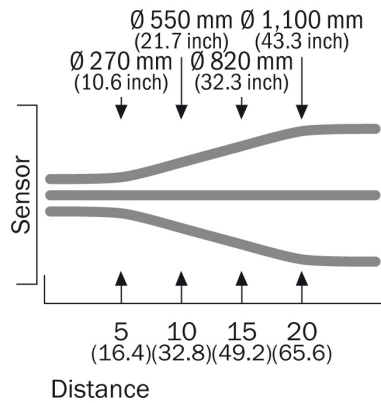
Sensing range diagram



Connection type



Light spot size



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