



Photoelectric sensors V18, Photoelectric proximity sensor, Background suppression

VTB18-OP0240S01



Model Name > [VTB18-0P0240S01](#)
Part No. > [6032862](#)



Illustration may differ

At a glance

- Cylindrical M18 housing
- Background suppression
- Sensing distance up to 140 mm
- 3- or 4-wire
- Metal or plastic housing

Your benefits

- Simple, standardized design ensures easy mounting, alignment and replacement
- Precise background suppression ensures reliable detection and increases throughput
- Compact, space-saving design easily fits in tight application spaces



Features

Sensor/detection principle:	Photoelectric proximity sensor, Background suppression
Housing design (light emission):	Cylindrical, straight, straight
Housing length:	79.4 mm
Thread diameter (housing):	M18 x 1
Optical axis:	Axial
Sensing range max.:	30 mm ... 92 mm ¹⁾
Sensing range:	30 mm ... 90 mm ²⁾
Type of light:	Visible red light
Light source:	LED ³⁾
Light spot (distance):	3 mm (90 mm)
Wave length:	660 nm
Adjustment of operating distance:	Potentiometer, 270°, red sealed to Datacode 1025

¹⁾ Object with 90 % reflectance (referred to standard white DIN 5033) ²⁾ Background suppression starting at 92 mm ³⁾ Average service life of 100,000 h at T_A = +25 °C

Mechanics/electronics

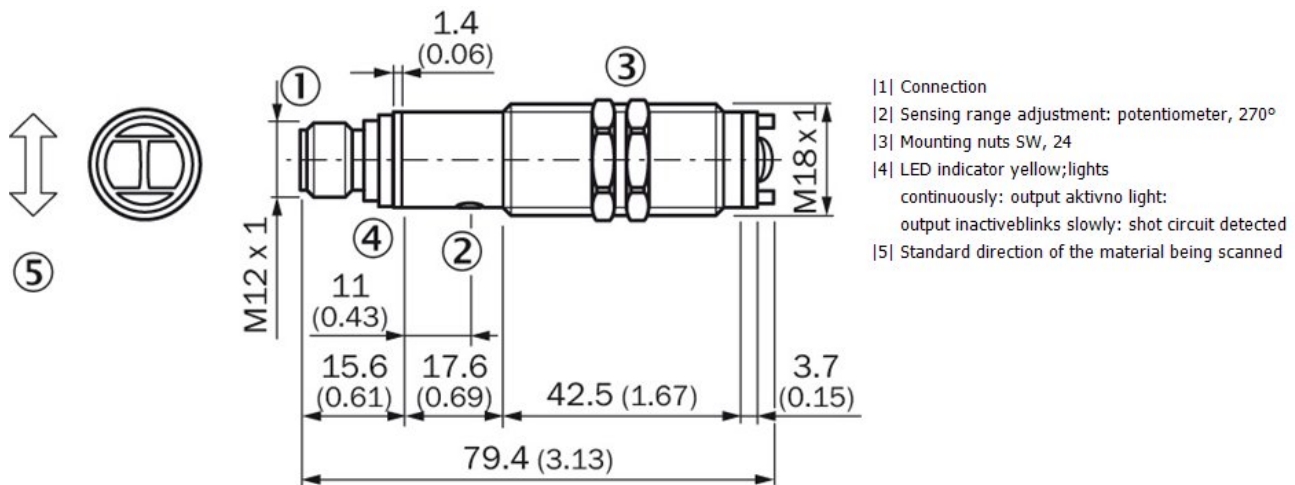
Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	≤ 10 % ²⁾
Power consumption:	≤ 30 mA ³⁾
Output type:	PNP, Light/dark-switching, open collector ⁴⁾
Output current I _{max.} :	100 mA
Response time:	≤ 1.25 ms ⁵⁾

Switching frequency:	400 Hz ⁶⁾
Connection type:	Connector M12, 4-pin
Circuit protection:::	A, B, C, D ^{7) 8) 9) 10)}
Protection class:	III
Weight:	120 g
Special device:	✓
Housing material:	Nickel-plated brass
Optics material:	PMMA
Enclosure rating:	IP 67
Ambient operating temperature:	-25 °C ... 70 °C
Ambient storage temperature:	-55 °C ... 80 °C

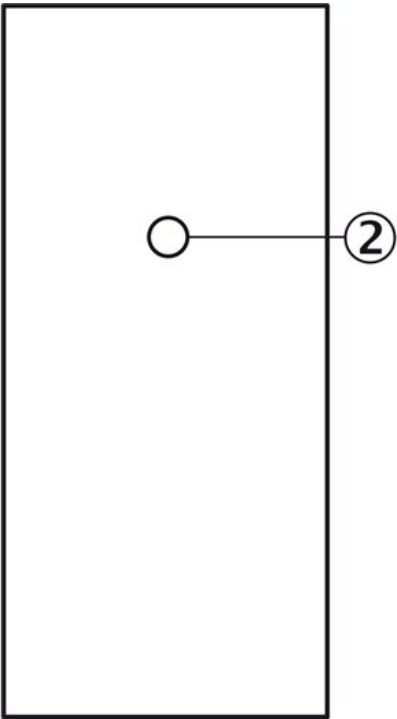
PIN 4 light-switching, PIN 2 dark-switching;

1) Limit values 2) May not exceed or fall short of V_S tolerances 3) Without load 4) PIN 4 light-switching, PIN 2 dark-switching 5) Signal transit time with resistive load
6) With light/dark ratio 1:1 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

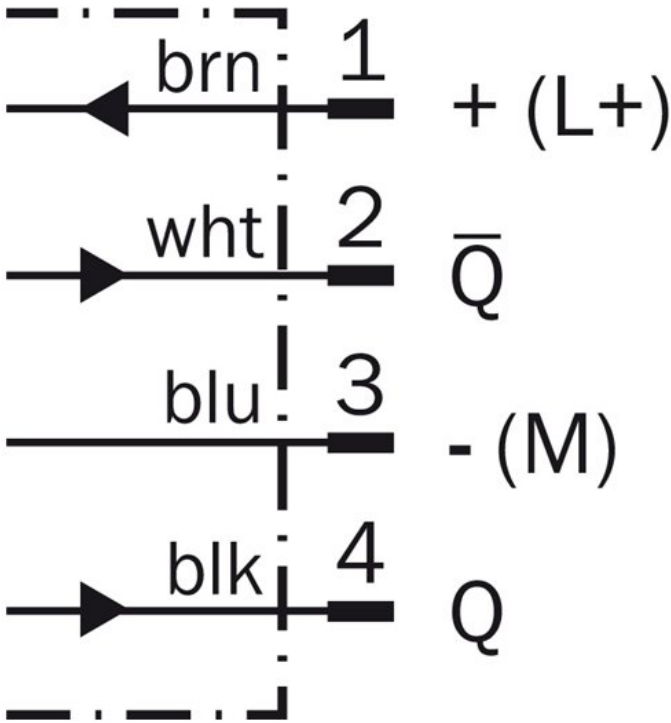


Adjustments possible

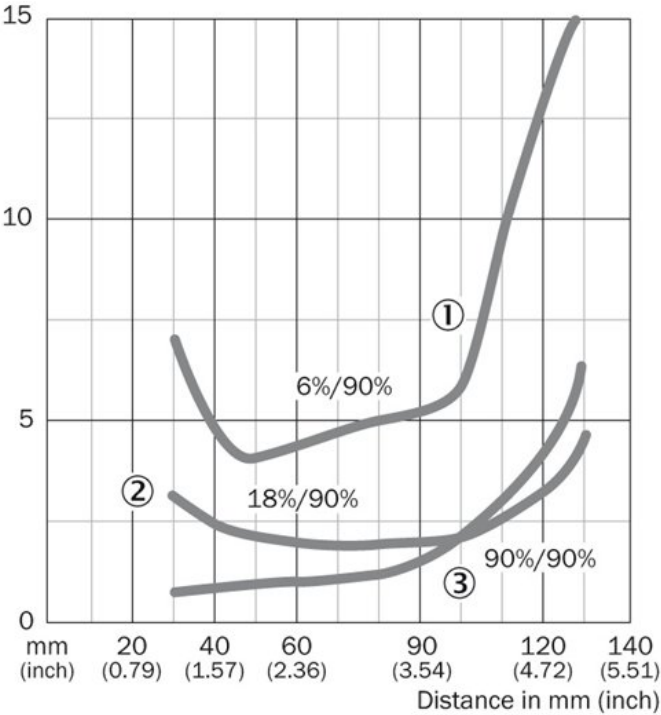


[2] Sensing range adjustment: potentiometer, 270°

Connection diagram



Characteristic curve



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