



Photoelectric sensors W9-3, Photoelectric proximity sensor, Background suppression

WTB9M4-3P3461S19



Model Name > **WTB9M4-3P3461S19**
Part No. > **1064722**



Illustration may differ

At a glance

- High-performance proximity sensor in ultra-rugged VISTAL™ housing
- PinPoint LED for highly visible and precise light spot
- Two emitter LEDs for best-in-class background suppression
- Variable mounting with M4 hole pattern
- Wide range of connection options

Your benefits

- Rugged VISTAL™ housing provides reliable installation and operation
- Reliable object detection in all situations using best-in-class technology
- Quick and easy alignment with reliable object detection due to the highly visible PinPoint light spot
- M4 slotted hole mounting for multiple mounting possibilities
- One housing with a wide range of options makes machine integration easy
- Variety of accessories for simple mounting



Features

Sensor/detection principle:	Photoelectric proximity sensor, Background suppression
Dimensions (W x H x D):	12.2 mm x 50 mm x 23.6 mm
Housing design (light emission):	Rectangular
Mounting hole:	M3
Sensing range max.:	20 mm ... 400 mm ¹⁾
Sensing range:	20 mm ... 250 mm ²⁾
Type of light:	Visible red light
Light source:	PinPoint LED ³⁾
Wave length:	650 nm
Adjustment:	Potentiometer, 5-turn
Light spot size (distance):	Ø 4.5 mm (75 mm)

¹⁾ Object with 90 % reflectance (referred to standard white DIN 5033) ²⁾ Object with 6 % reflectance (referred to standard white DIN 5033) ³⁾ Average service life of 100,000 h at T_A = +25 °C

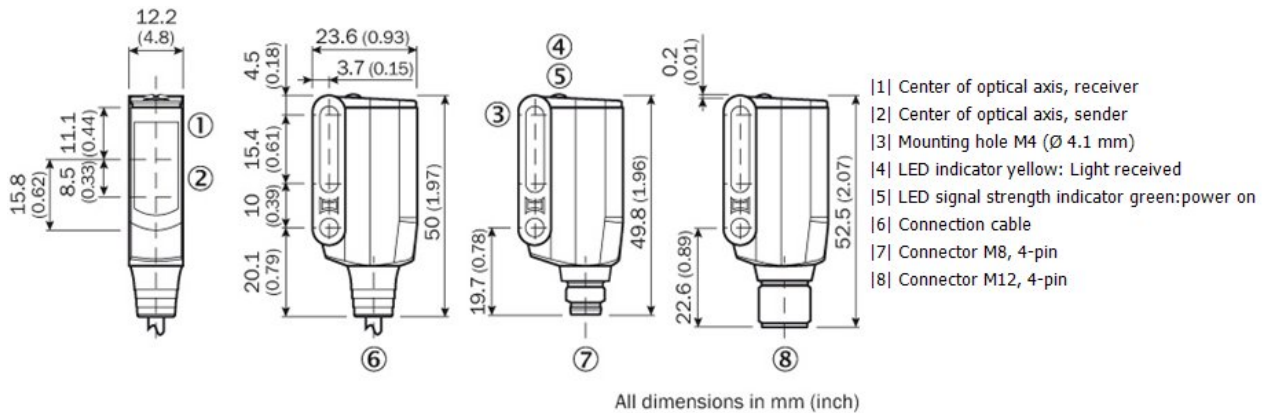
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	< 5 Vpp
Power consumption:	≤ 30 mA ²⁾
Output type:	PNP ³⁾

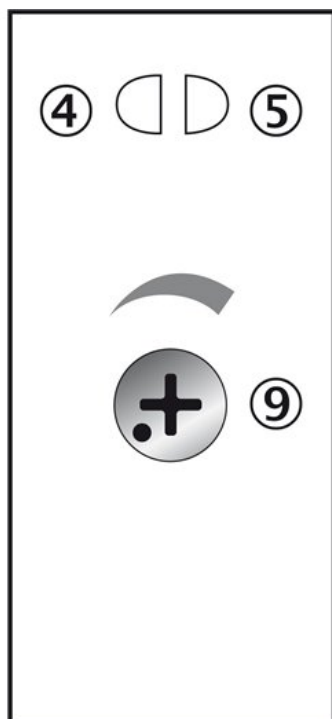
Output function:	Complementary
Switching mode:	Light/dark-switching ⁴⁾
Output current I _{max} :	≤ 100 mA ⁵⁾
Response time:	< 0.666 ms ⁶⁾
Switching frequency:	± 750 Hz ⁷⁾
Connection type:	Cable with connector M12, 4-pin, 120 mm ⁸⁾
Cable material:	PVC
Conductor cross-section:	0.14 mm ²
Circuit protection:::	A, B, C ⁹⁾ 10) 11)
Protection class:	III
Weight:	80 g
Housing material:	Plastic, VISTAL
Optics material:	PMMA
Enclosure rating:	IP 66 IP 67 IP 69K
Ambient operating temperature:	-40 °C ... 60 °C
Ambient storage temperature:	-40 °C ... 75 °C
UL File No.:	NRKH.E181493

¹⁾ Limit values, operation in short-circuit protected network max. 8 A ²⁾ Without load ³⁾ 4) Q = light-switching ⁵⁾ As of Tu 50 °C, a max. load current I_{max}. = 50 mA is permitted ⁶⁾ Signal transit time with resistive load ⁷⁾ With light/dark ratio 1:1 ⁸⁾ Do not bend below 0 °C ⁹⁾ A = V_S connections reverse-polarity protected ¹⁰⁾ B = inputs and output reverse-polarity protected ¹¹⁾ C = interference suppression

Dimensional drawing

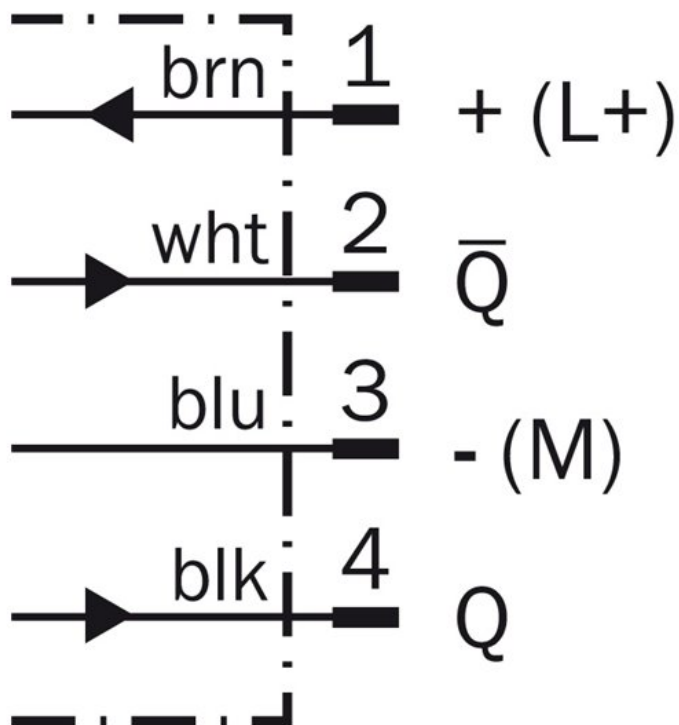


Adjustments possible

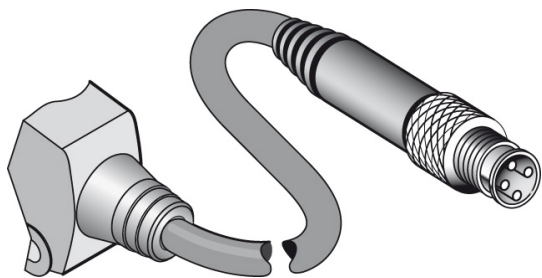


- |4| LED indicator yellow: Light received
- |5| LED signal strength indicator green: power on
- |9| Sensing range adjustment

Connection diagram



Connection type



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