



Photoelectric sensors
W34, Photoelectric proximity sensor, Background
suppression

WT34-B400S04



Model Name > [WT34-B400S04](#)
Part No. > [1029973](#)



Illustration may differ

At a glance

- Precise background suppression at long ranges
- Immune to ambient light and crosstalk from another sensor
- Switch selectable PNP or NPN output and light/dark switching
- Versions with DC voltage (10...30V) or universal AC/DC voltage (12 ... 240 V DC / 24 ... 240 V AC)
- Optional test input, adjustable ON and OFF time delays, alarm output
- M12 or terminal chamber connection: 90° rotatable
- UL approval

Your benefits

- Versions with IR LED provide precise object detection at sensing ranges of 2500 mm
- Immune to ambient light and crosstalk from another sensor, providing reliable operation and less downtime
- The sensor cover protects configuration components against environmental hazards
- Adjustable time delay, alarm output, test input, and universal AC/DC voltage provide additional flexibility and reduce the number of part numbers needed



Features

Sensor/detection principle:	Photoelectric proximity sensor, Background suppression
Dimensions (W x H x D):	27 mm x 92 mm x 70 mm
Housing design (light emission):	Rectangular
Sensing range max.:	100 mm ... 2,500 mm ¹⁾
Sensing range:	100 mm ... 2,500 mm
Type of light:	Infrared light
Light source:	LED ²⁾
Light spot diameter (distance):	Ø 18 mm (1,500 mm)
Adjustment of operating distance:	Potentiometer

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

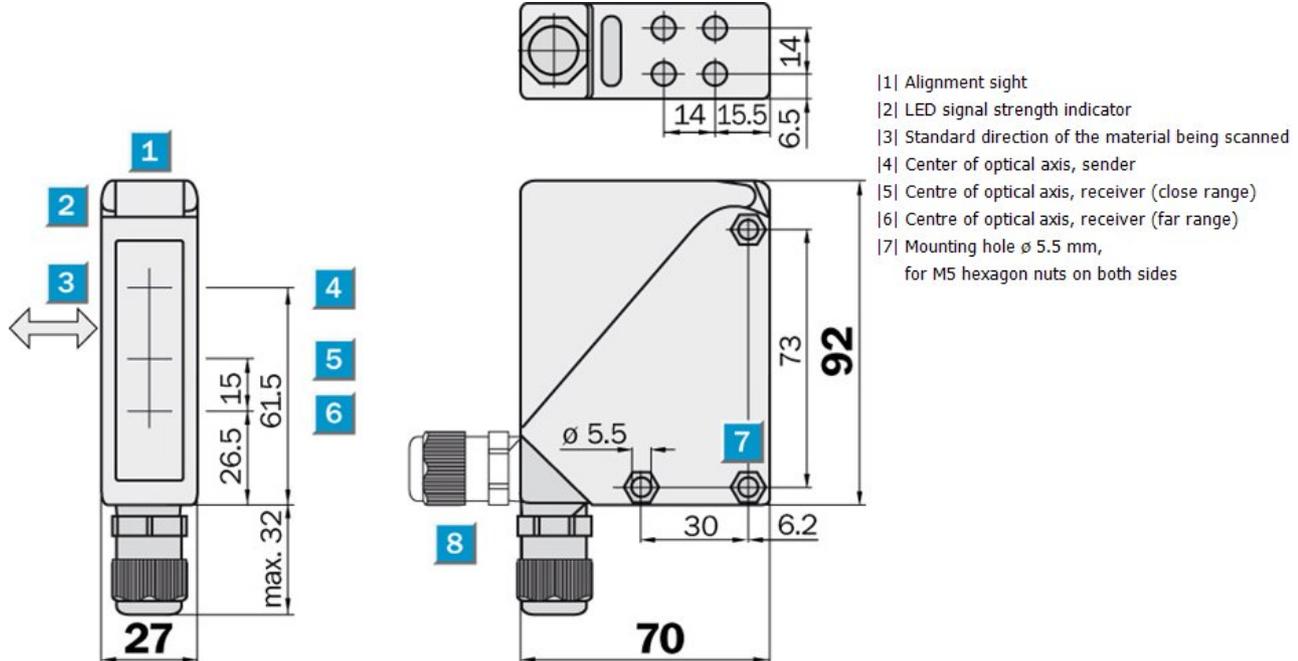
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	< 5 Vpp ²⁾
Power consumption:	≤ 50 mA
Output type:	NPN, PNP

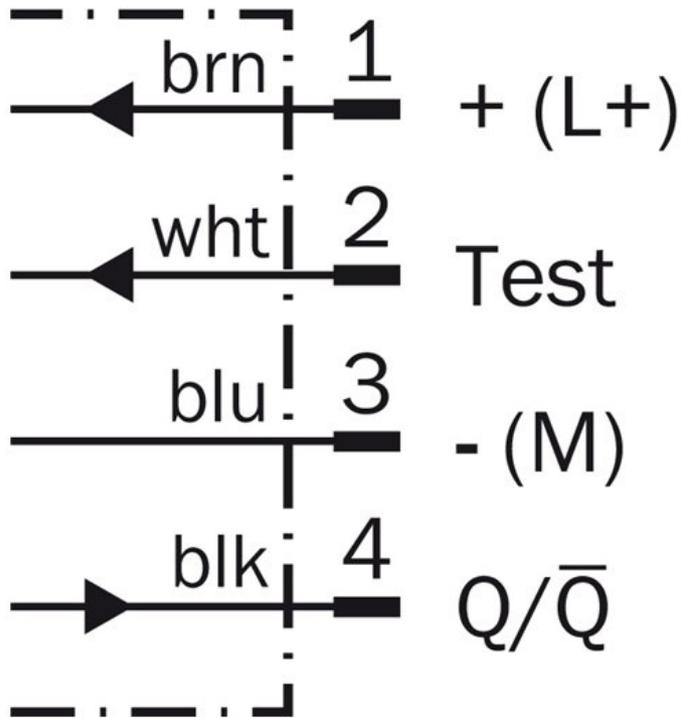
Switching mode:	Dark-switching, Light switching
Switching mode selector:	Light switching (pre-setting), Selectable via light/dark selector, Selectable via PNP/NPN selector
Output current I _{max.} :	100 mA
Response time:	≤ 500 μs ³⁾
Switching frequency:	1,000 Hz ⁴⁾
Connection type:	Connector M12, 4-pin ⁵⁾
Circuit protection:::	A, C, D ^{6) 7) 8)}
Protection class:	II ⁹⁾
Weight:	140 g
Special device:	✓
Housing material:	ABS
Enclosure rating:	IP 67
Special features:	Light-switching (pre-setting), Very small light spot and very long scanning distance
Test input sender off:	TE to 0 V
Ambient operating temperature:	-40 °C ... 60 °C
Ambient storage temperature:	-40 °C ... 75 °C
UL File-No.:	UL No. NRKH.E181493 & cUL No. NRKH7.E181493

1) Limit values 2) May not exceed or fall short of V_S tolerances 3) Signal transit time with resistive load 4) With light/dark ratio 1:1 5) Connection rotatable by 90° 6) A = V_S connections reverse-polarity protected 7) C = interference suppression 8) D = outputs overcurrent and short-circuit protected 9) Reference voltage 50 V DC

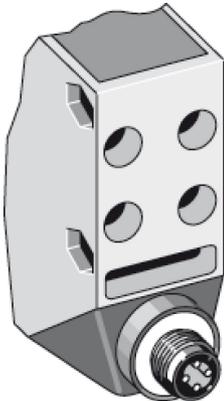
Dimensional drawing



Connection diagram



Connection type



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