



Photoelectric sensors
W34, Photoelectric proximity sensor, Background
suppression

WT34-V240



Model Name > WT34-V240
Part No. > 1019227



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 ... 1,200 mm ¹⁾
Sensing range:	100 mm ... 1,200 mm
Type of light:	Visible red light
Light source:	LED ²⁾
Wave length:	660 nm
Alarm output:	✓
Adjustment:	Potentiometer
Light spot size (distance):	Ø 40 mm (1,200 mm)

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

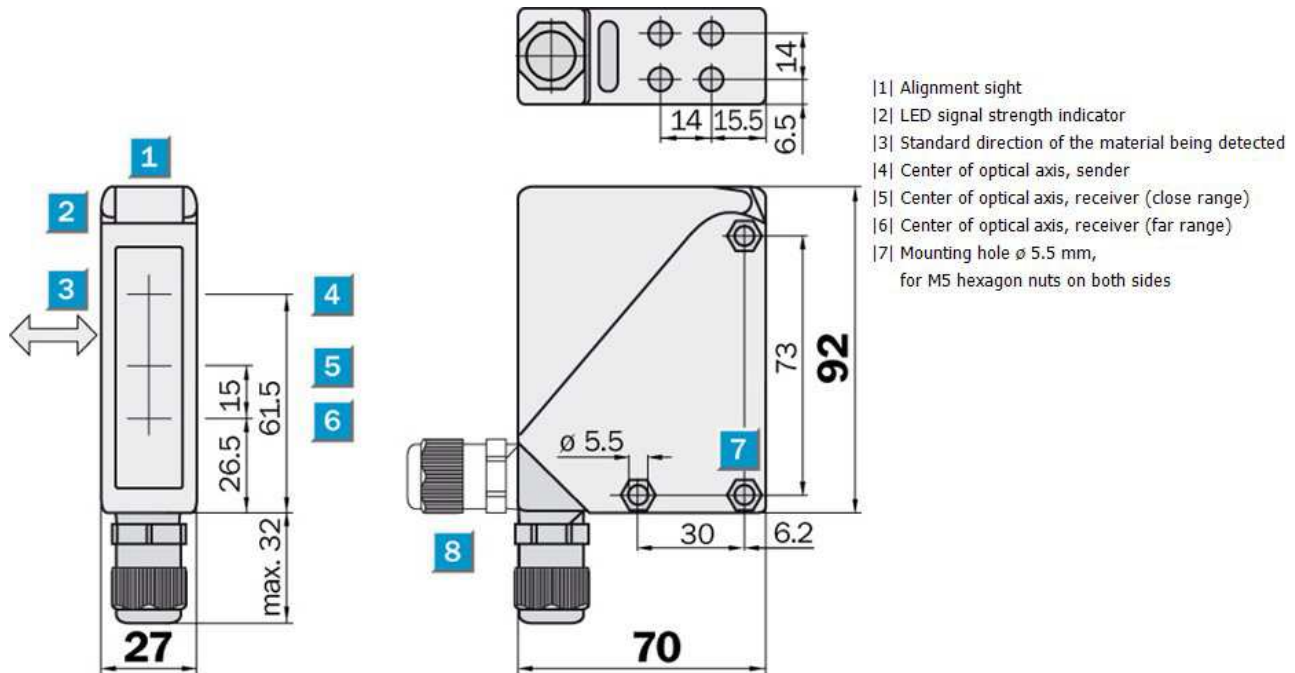
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	< 5 Vpp ²⁾

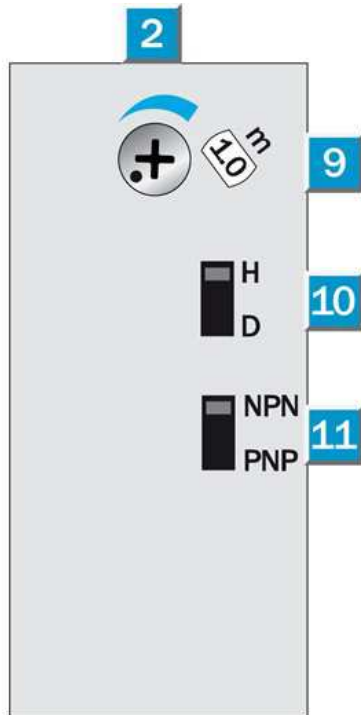
Current consumption:	≤ 50 mA
Output type:	NPN, PNP
Switching mode:	Dark switching, Light switching
Switching mode selector:	Selectable via light/dark selector, Selectable via PNP/NPN selector
Output current I _{max} :	100 mA
Response time:	≤ 500 μs ³⁾
Switching frequency:	1,000 Hz ⁴⁾
Connection type:	Terminal connection with M16 gland ⁵⁾
Circuit protection:::	A, C, D ^{6) 7) 8)}
Protection class:	II ⁹⁾
Weight:	140 g
Special device:	-
Enclosure rating:	IP 67
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.:	NRKH.E181493 & NRKH7.E181493
Housing material:	ABS, Plastic

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

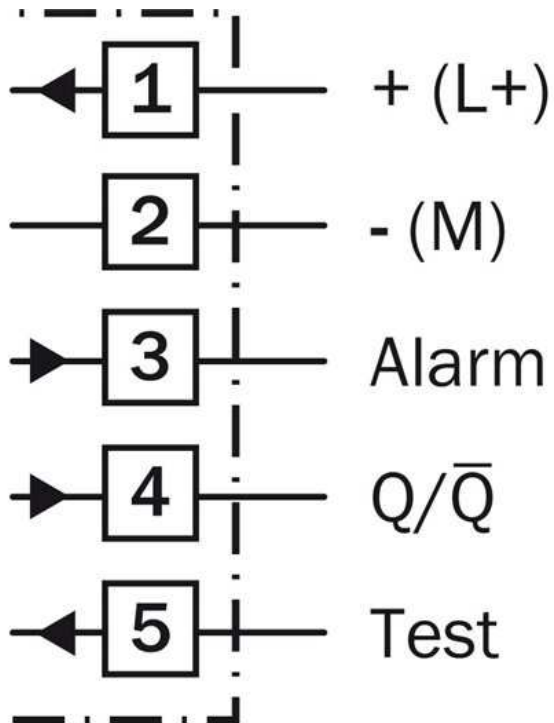


Adjustments possible

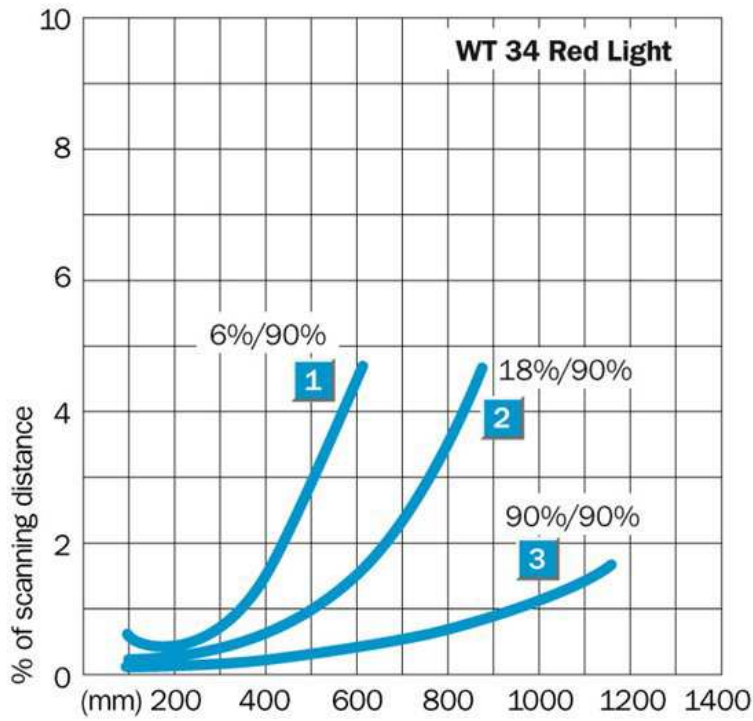


- |2| Receive indicator
- |9| Sensing range adjustment
- |10| Light/dark selector
- |11| NPN/ PNP selector

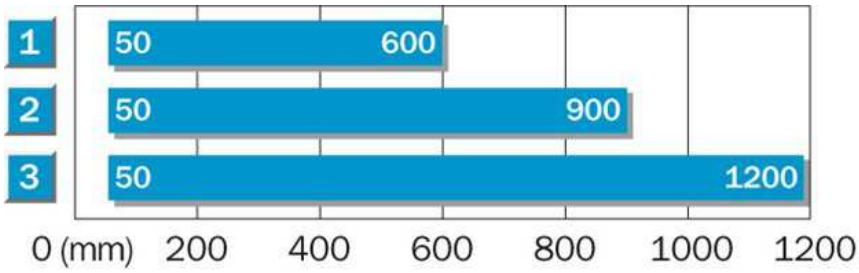
Connection diagram



Characteristic curve

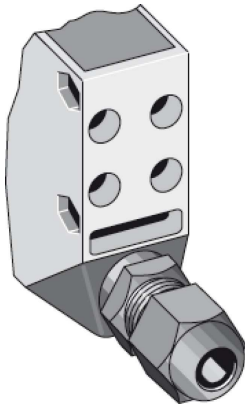


Sensing range diagram



1	Scanning distance on black ⁹⁾
2	Scanning distance on grey ⁹⁾
3	Scanning distance on white ⁹⁾

Connection type



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