

ONLINE DATA SHEET
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Photoelectric sensors
W4-3, Photoelectric proximity sensor, Background suppression

WTB4-3P3162S04



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Model Name > WTB4-3P3162S04
Part No. > 1029917





Illustration may differ

At a glance

- Intense light spot with PinPoint LED technology
- Sensor with IR light available upon request
- Sensing range of 4 - 150 mm
- Background suppression sensor available with laser-like light spot
- Adjustment either via teach-in pushbutton, 5-turn potentiometer, cable or IO-Link
- Second emitter LED designed for suppression of shiny backgrounds
- Flexible sensing ranges and hysteresis settings
- Key lock function, remote teach, quality monitoring

Your benefits

- Reliable detection of objects regardless of color and consistency
- Smart machine design ensures low-cost integration due to mounting flexibility in areas with limited space
- Best-in-class background suppression and a high immunity to ambient light, ensuring reliable object detection
- Rugged mounting system with M3 threaded metal inserts reduces maintenance costs due to a long service life
- Precise detection with a high level of repeat accuracy due to an intense light spot with PinPoint LED technology
- Quick and easy format adjustment
- Easy monitoring of sensor status
- Key lock function and parameter download prevent incorrect settings

Features

Sensor/detection principle:	Photoelectric proximity sensor, Background suppression
Dimensions (W x H x D):	16 mm x 39.5 mm x 12 mm
Housing design (light emission):	Rectangular
Sensing range max.:	4 mm ... 150 mm [1)]
Sensing range:	15 mm ... 150 mm [2)]
Type of light:	Visible red light
Light source:	PinPoint LED [3)]
Wave length:	650 nm
Special features:	Sensing range: preset 60 mm
Adjustment:	Single teach-in button
Light spot size (distance):	Ø 7 mm (50 mm)

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

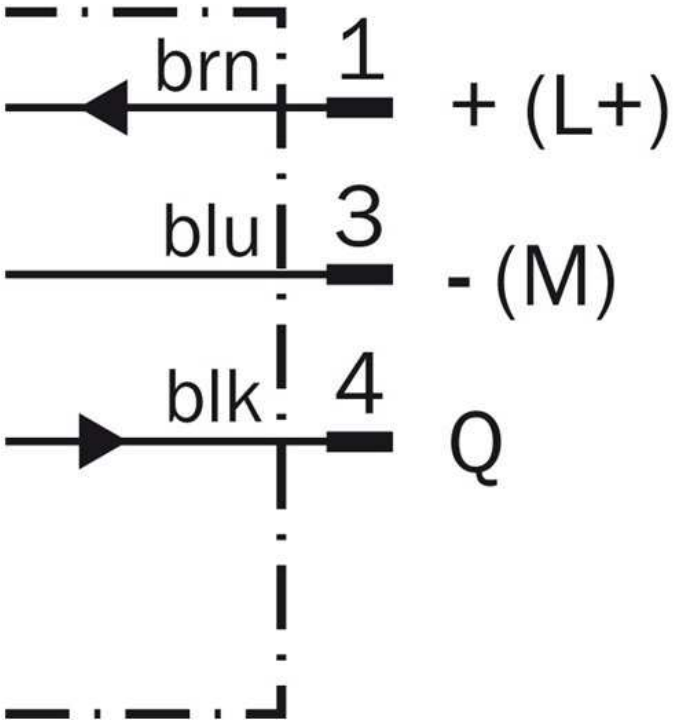
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC [1]
Ripple::	< 5 Vpp [2] [3]
Power consumption:	≤ 20 mA [4]
Output type:	PNP
Switching mode:	Light switching
Output current Imax.:	≤ 100 mA
Response time:	< 0.5 ms [5]
Switching frequency:	1,000 Hz [6]
Connection type:	Cable with connector M8, 3-pin, 100 mm [7]
Cable material:	PVC
Conductor cross-section:	0.14 mm²
Cable diameter:	3.4 mm
Circuit protection:::	A, C, D [8] [9] [10]
Protection class:	III
Weight:	30 g
Special device:	✓
Optics material:	PMMA
Enclosure rating:	IP 67 IP 66
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] [3] May not exceed or fall below U_v tolerances [4] Without load [5] Signal transit time with resistive load [6] With light/dark ratio 1:1 [7] Do not bend below 0 °C [8] A = V_S connections reverse-polarity protected [9] C = interference suppression [10] D = outputs overcurrent and short-circuit protected

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Connection diagram



Connection type



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