



Photoelectric sensors
W4-3, Photoelectric proximity sensor,
Background suppression

WTV4-3N3041S66



Model Name > [WTV4-3N3041S66](#)
Part No. > [1054938](#)



Illustration may differ

At a glance

- Sensing range from 4 - 50 mm
- Reliable detection of planar, highly transparent and shiny objects at distances of 20 to 25 mm
- 5-turn potentiometer for precise adjustment
- Large, consistent light spot
- Rugged plastic housing with M3 threaded metal inserts
- IR versions available for detection of jet-black objects with a remission < 1%
- Versions available with linear light spot

Your benefits

- Low-cost machine design since shiny and transparent objects are directly detected, making a separate reflector or through-beam system unnecessary
- Less mounting and setup time since no alignment is required
- Rugged mounting system with M3 threaded metal inserts reduces maintenance costs due to a long service life
- Reliable object detection due to best-in-class background suppression and high immunity to ambient light



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, Flat
Sensing range:	≤ 25 mm ¹⁾
Type of light:	Visible red light
Light source:	PinPoint LED ²⁾
Wave length:	650 nm
Light spot size (distance):	Ø 10 mm (40 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

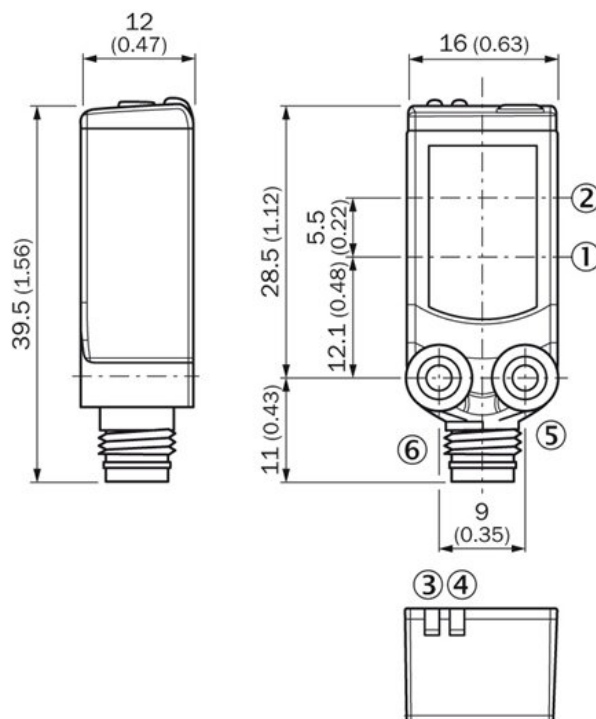
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	< 5 Vpp ²⁾
Power consumption:	≤ 20 mA ³⁾
Output type:	NPN
Switching mode:	Light switching
Output current I _{max} ..:	≤ 100 mA

Response time:	< 0.5 ms ⁴⁾
Switching frequency:	1,000 Hz ⁵⁾
Connection type:	Molex, 195 mm ⁶⁾
Cable material:	PVC
Conductor cross-section:	0.14 mm ²
Cable diameter:	Ø 3.4 mm
Circuit protection:::	A, C, D ⁷⁾ 8) 9)
Protection class:	III
Weight:	30 g
Special device:	-
Housing material:	ABS, Plastic
Optics material:	PMMA
Enclosure rating:	IP 67 IP 66
Special feature:	V-optics
Ambient operating temperature:	-40 °C ... 60 °C
Ambient storage temperature:	-40 °C ... 75 °C
UL File No.:	NRKH.E181493 & NRKH7.E181493

1) Limit values 2) May not exceed or fall short of V_S tolerances 3) Without load 4) Signal transit time with resistive load 5) With light/dark ratio 1:1 6) Do not bend below 0 °C 7) A = V_S connections reverse-polarity protected 8) C = interference suppression 9) D = outputs overcurrent and short-circuit protected

Dimensional drawing



- [1] Center of optical axis, sender
- [2] Center of optical axis, receiver
- [3] LED indicator orange: status of received light beam
- [4] Status indicator LED green: power on
- [5] Threaded mounting hole M3
- [6] Connection

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