



Photoelectric sensors
W4S-3 Inox, Photoelectric proximity sensor,
Background suppression

WTB4S-3P1132V



Model Name > [WTB4S-3P1132V](#)
Part No. > [1046402](#)



Illustration may differ

At a glance

- WashDown rated for fluid tightness (IP 66, IP 67, IP 68 and IP 69K) and Ecolab certified
- Tough stainless steel housing (316L/1.4404)
- Resistant to a variety of common cleaning and disinfection agents
- Modern electrical connection available - M12 connector with pin casting
- Best background and extraneous light suppression in its class with OES3 technology and two emitter LED's
- Flexible sensing ranges and hysteresis settings
- Key lock function, remote teach, quality monitoring

Your benefits

- Long service life in harsh conditions ensures less downtime and fewer replacement costs
- OES3 technology and special optical design ensures reliable detection of objects at an extended range which ensures less machine downtime caused by faulty switching
- Quick and easy alignment due to highly visible PinPoint emitter LED
- Easy adjustment via a stainless steel metal membrane teach-in pushbutton
- Quick and easy format adjustment
- Easy monitoring of sensor status
- Key lock function and parameter download prevent incorrect settings
- Simple sensor cloning



Features

Sensor/detection principle:	Photoelectric proximity sensor, Background suppression
Dimensions (W x H x D):	15.25 mm x 49.2 mm x 22.2 mm
Housing design:	Washdown
Housing design (light emission):	Rectangular
Sensing range max.:	4 mm ... 120 mm ¹⁾
Sensing range:	10 mm ... 120 mm ²⁾
Type of light:	Visible red light
Light source:	PinPoint LED ³⁾
Wave length:	650 nm
Adjustment:	Single teach-in button
Light spot size (distance):	Ø 2.5 mm (50 mm)

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

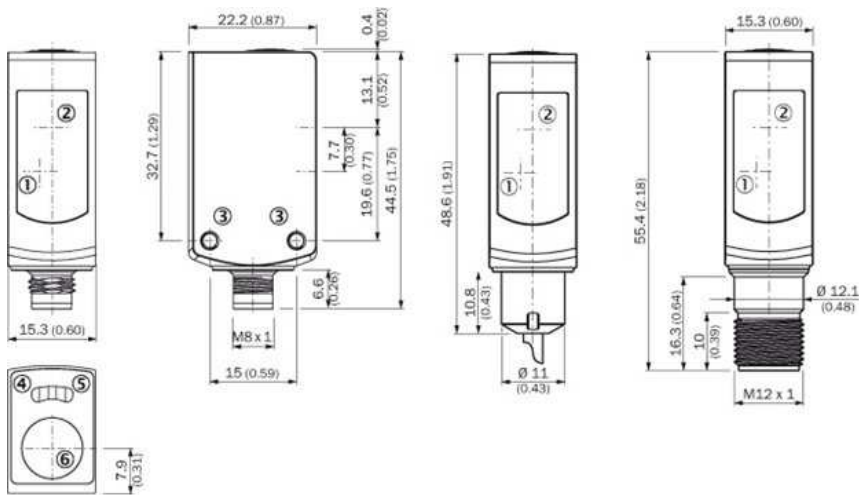
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	< 5 Vpp ²⁾
Power consumption:	≤ 30 mA ³⁾
Output type:	PNP
Switching mode:	Light/dark switching
Output current I _{max.} :	≤ 100 mA
Response time:	< 0.5 ms ⁴⁾
Switching frequency:	1,000 Hz ⁵⁾
Connection type:	Cable, 4-wire, 2 m ⁶⁾
Cable material:	PVC
Conductor cross-section:	0.14 mm ²
Circuit protection:::	A, B, C ^{7) 8) 9)}
Protection class:	III
Weight:	80 g
Special device:	-
Enclosure rating:	IP 66 IP 67 IP 68 IP 69K
Ambient operating temperature:	-30 °C ... +60 °C, -30 °C ... +70 °C ¹⁰⁾
Ambient storage temperature:	-30 °C ... +75 °C
UL File No.:	NRKH.E181493 & NRKH7.E181493
Housing material:	Stainless steel, Stainless steel 316L

1) Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8 A ²⁾ May not exceed or fall below U_v tolerances ³⁾ Without load ⁴⁾

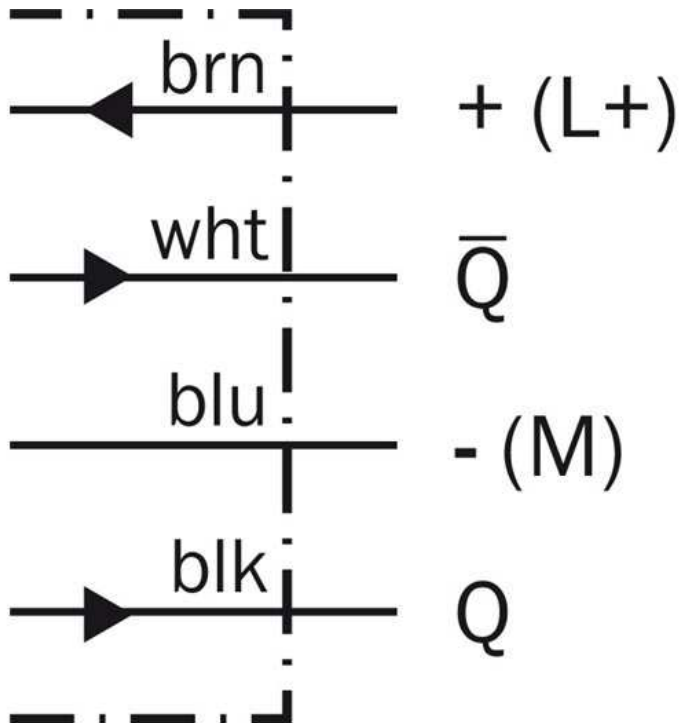
Signal transit time with resistive load ⁵⁾ With light/dark ratio 1:1 ⁶⁾ Do not bend below 0 °C ⁷⁾ A = V_S connections reverse-polarity protected ⁸⁾ B = inputs and output reverse-polarity protected ⁹⁾ C = interference suppression ¹⁰⁾ At $UV \leq 24\text{ V}$ and $IA < 30\text{ mA}$

Dimensional drawing

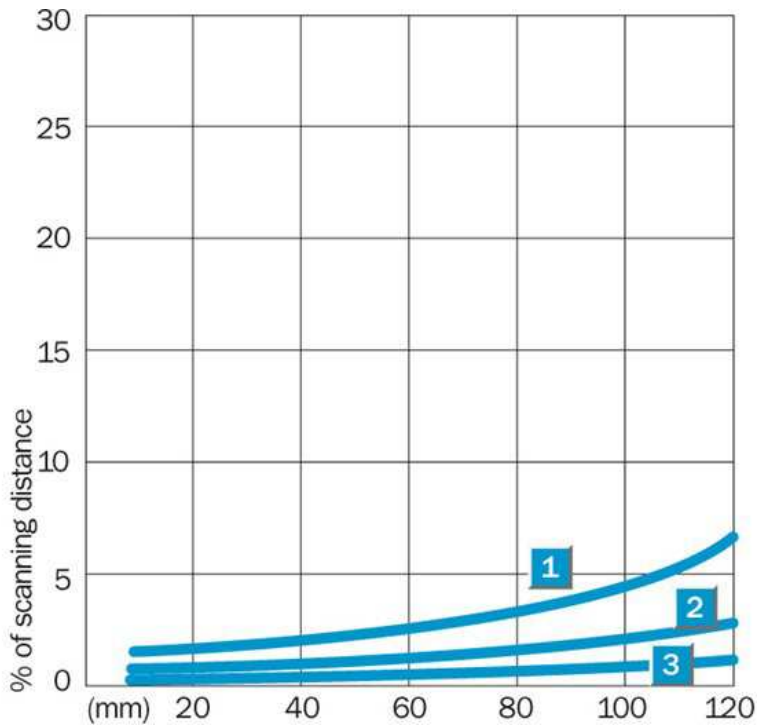


- [1] Center of optical axis, receiver
- [2] Center of optical axis, sender
- [3] Threaded mounting hole M3
- [4] Status indicator LED,
yellow: Status of received light beam
- [5] Status indicator LED green: supply voltage on
- [6] Teach-in button

Connection diagram

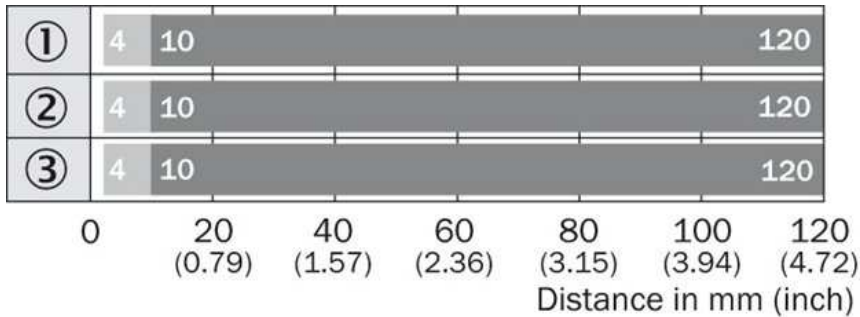


Characteristic curve



- |1| Sensing range on black, 6 % remission
- |2| Sensing range on gray, 18 % remission
- |3| Sensing range on white, 90 % remission

Sensing range diagram

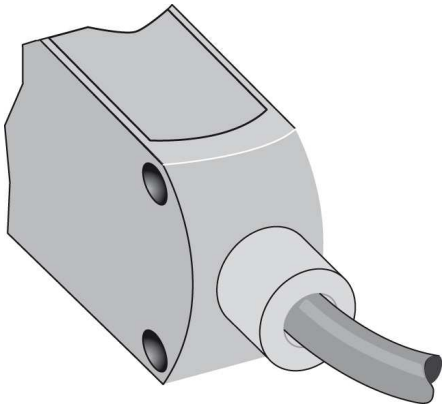


- |1| Sensing range on black, 6 % remission
- |2| Sensing range on gray, 18 % remission
- |3| Sensing range on white, 90 % remission

■ Operating distance ■ Sensing distance max. typ.

- ① Sensing distance on black, 6 % remission
- ② Sensing distance on grey, 18 % remission
- ③ Sensing distance on white, 90 % remission

Connection type



Australia

Phone +61 3 9457 0600
1800 33 48 02 – tollfree
E-Mail sales@sick.com.au

Belgium/Luxembourg

Phone +32 (0)2 466 55 66
E-Mail info@sick.be

Brasil

Phone +55 11 3215-4900
E-Mail marketing@sick.com.br

Canada

Phone +1 905 771 14 44
E-Mail information@sick.com

Česká republika

Phone +420 2 57 91 18 50
E-Mail sick@sick.cz

China

Phone +86 4000 121 000
E-Mail info.china@sick.net.cn
Phone +852-2153 6300
E-Mail ghk@sick.com.hk

Danmark

Phone +45 45 82 64 00
E-Mail sick@sick.dk

Deutschland

Phone +49 211 5301-301
E-Mail info@sick.de

España

Phone +34 93 480 31 00
E-Mail info@sick.es

France

Phone +33 1 64 62 35 00
E-Mail info@sick.fr

Great Britain

Phone +44 (0)1727 831121
E-Mail info@sick.co.uk

India

Phone +91-22-4033 8333
E-Mail info@sick-india.com

Israel

Phone +972-4-6881000
E-Mail info@sick-sensors.com

Italia

Phone +39 02 27 43 41
E-Mail info@sick.it

Japan

Phone +81 (0)3 5309 2112
E-Mail support@sick.jp

Magyarország

Phone +36 1 371 2680
E-Mail office@sick.hu

Nederland

Phone +31 (0)30 229 25 44
E-Mail info@sick.nl

Norge

Phone +47 67 81 50 00
E-Mail sick@sick.no

Österreich

Phone +43 (0)22 36 62 28 8-0
E-Mail office@sick.at

Polska

Phone +48 22 837 40 50
E-Mail info@sick.pl

România

Phone +40 356 171 120
E-Mail office@sick.ro

Russia

Phone +7-495-775-05-30
E-Mail info@sick.ru

Schweiz

Phone +41 41 619 29 39
E-Mail contact@sick.ch

Singapore

Phone +65 6744 3732
E-Mail sales.gsg@sick.com

Slovenija

Phone +386 (0)1-47 69 990
E-Mail office@sick.si

South Africa

Phone +27 11 472 3733
E-Mail info@sickautomation.co.za

South Korea

Phone +82 2 786 6321/4
E-Mail info@sickkorea.net

Suomi

Phone +358-9-25 15 800
E-Mail sick@sick.fi

Sverige

Phone +46 10 110 10 00
E-Mail info@sick.se

Taiwan

Phone +886 2 2375-6288
E-Mail sales@sick.com.tw

Türkiye

Phone +90 (216) 528 50 00
E-Mail info@sick.com.tr

United Arab Emirates

Phone +971 (0) 4 88 65 878
E-Mail info@sick.ae

USA/México

Phone +1(952) 941-6780
1 (800) 325-7425 – tollfree
E-Mail info@sickusa.com

More representatives and agencies
at www.sick.com