WTB4S-3P5232H

W4S-3 Inox Hygiene

MINIATURE PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

Illustration may differ

Ordering information

Type	Part no.
WTB4S-3P5232H	1054864

Other models and accessories ➜ www.sick.com/W4S-3_Inox_Hygiene

Detailed technical data

Features

Sensor/ detection principle	Photoelectric proximity sensor, Background suppression
Dimensions (W x H x D)	15.25 mm x 63.2 mm x 22.15 mm
Housing design	Hygiene
Housing design (light emission)	Rectangular
Sensing range max.	4 mm ... 120 mm [1]
Sensing range	10 mm ... 120 mm [1]
Type of light	Visible red light
Light source	PinPoint LED [2]
Light spot size (distance)	Ø 2.5 mm (50 mm)
Wave length	650 nm
Adjustment	Single teach-in button
Special applications	Hygienic and washdown zones

[1] Object with 90 % reflectance (referred to standard white, DIN 5033).

[2] Average service life: 100,000 h at T_U = +25 °C.

Mechanics/electronics

Supply voltage	10 V DC … 30 V DC [1]
Ripple	< 5 V_{pp} [2]
Power consumption	30 mA [3]
Switching output	PNP
Output function	Complementary
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	Male connector M8, 4-pin [6]
Mechanical connection	D12 adapter shaft
Circuit protection	A [7] B [8] C [9]
Protection class	III
Weight	140 g
Housing material	Stainless steel, Stainless steel
Enclosure rating	IP66 IP67 IP68 IP69K
Special feature	D12 adapter shaft
Ambient operating temperature	–30 °C … +70 °C [10] –30 °C … +60 °C
Ambient storage temperature	–30 °C … +75 °C
UL File No.	FDA, UL No. NRKH.E181493 & cUL No. NRKH7.E181493

[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] Max. tightening torque: 0.6 Nm.

[7] A = V_S connections reverse-polarity protected.

[8] B = inputs and output reverse-polarity protected.

[9] C = interference suppression.
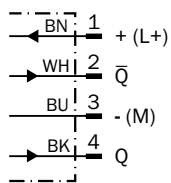
[10] At UV ≤ 24 V and IA < 30 mA.

Classifications

ECl@ss 5.0	27270904
ECl@ss 5.1.4	27270904
ECl@ss 6.0	27270904
ECl@ss 6.2	27270904
ECl@ss 7.0	27270904
ECl@ss 8.0	27270904
ECl@ss 8.1	27270904

ECl@ss 9.0	27270904
ECl@ss 10.0	27270904
ECl@ss 11.0	27270904
ETIM 5.0	EC002719
ETIM 6.0	EC002719
ETIM 7.0	EC002719
UNSPSC 16.0901	39121528

Connection diagram

Cd-083

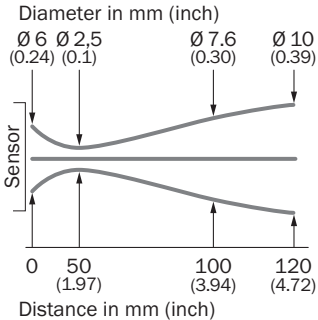|		
BN	1	+ (L+)
WH	2	$\overline{Q}$
BU	3	- (M)
BK	4	Q

Characteristic curve

WTB4S-3, 120 mm
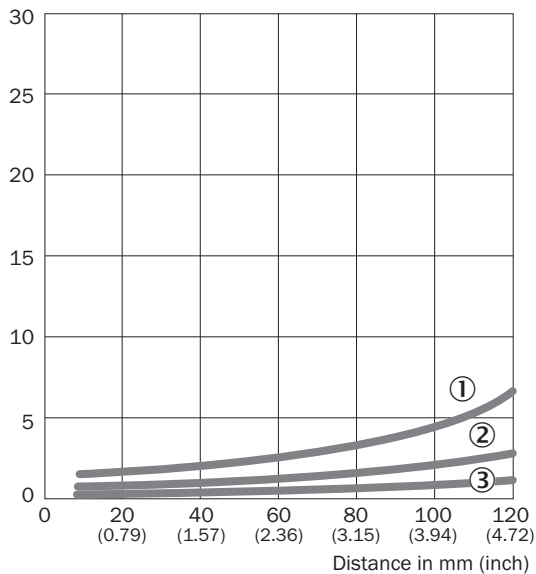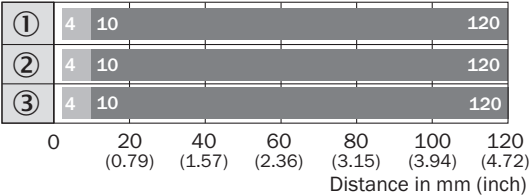

① Sensing range on black, 6% remission
② Sensing range on gray, 18 % remission
③ Sensing range on white, 90% remission

Light spot size

Diameter in mm (inch)

Ø 6 (0.24) Ø 2,5 (0.1) Ø 7.6 (0.30) Ø 10 (0.39)

Sensor

0   50 (1.97)   100 (3.94)   120 (4.72)

Distance in mm (inch)

Sensing range diagram

WTB4S-3, 120 mm

①	4 10	120
②	4 10	120
③	4 10	120

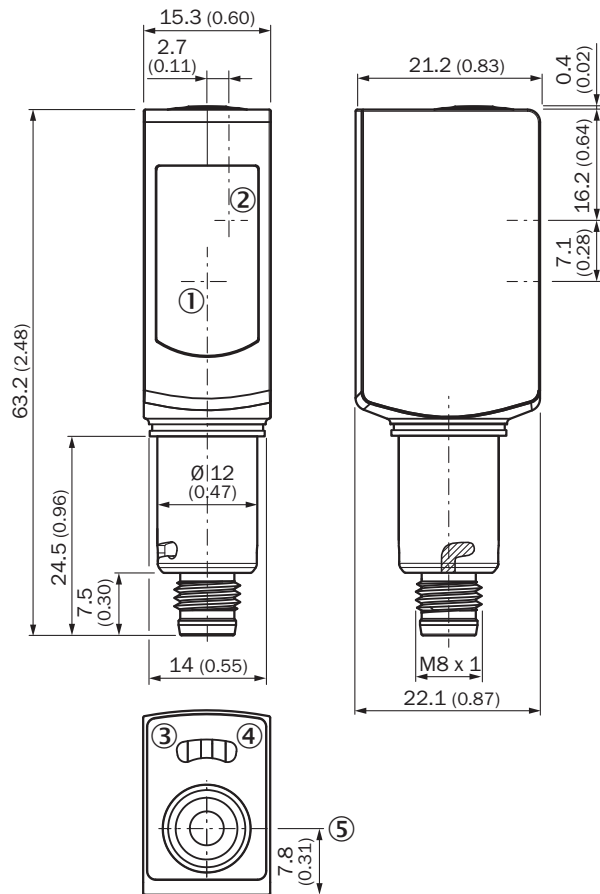0   20 (0.79)   40 (1.57)   60 (2.36)   80 (3.15)   100 (3.94)   120 (4.72)

Distance in mm (inch)

█ Sensing range   ░ Sensing range max.

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

Dimensional drawing (Dimensions in mm (inch))

15.3 (0.60)
2.7 (0.11)
21.2 (0.83)
0.4 (0.02)
16.2 (0.64)
7.1 (0.28)
63.2 (2.48)
24.5 (0.96)
7.5 (0.30)
Ø 12 (0.47)
14 (0.55)
M8 x 1
22.1 (0.87)
7.8 (0.31)

① Center of optical axis, receiver
② Center of optical axis, sender
③ LED indicator yellow: Status of received light beam
④ LED indicator green: Supply voltage active
⑤ Single teach-in button

Recommended accessories

Other models and accessories ➜ www.sick.com/W4S-3_Inox_Hygiene

Brief description	Type	Part no.
Other mounting accessories		
Diameter 18 mm x 100 mm for W4S-3 Inox hygiene. Hygienic integration without holes and brackets. Cable run inside tube	BEF-MR18G-NA	4065853
Plug connectors and cables		
Head A: female connector, M8, 4-pin, straight Head B: Flying leads Cable: PVC, unshielded, 5 m This product is generally resistant to chemical cleaning agents (see ECOLAB). Please do not use cleaning agents of any other Kind., Not resistant against lactic acid & hydrogen peroxide (H2O2)	DOL-0804-G05MNI	6059194

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We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

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For us, that is "Sensor Intelligence."

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