WT2S-N131
W2 Slim

MINIATURE PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

WT2S-N131 | W2 Slim
MINIATURE PHOTOELECTRIC SENSORS

Illustration may differ

Ordering information

Type	Part no.
WT2S-N131	1022663

Other models and accessories ➜ www.sick.com/W2_Slim

Detailed technical data

Features

Sensor/ detection principle	Photoelectric proximity sensor, Background suppression
Dimensions (W x H x D)	7.6 mm x 25.1 mm x 12.5 mm
Housing design (light emission)	Rectangular
Sensing range max.	1 mm ... 30 mm [1]
Sensing range	1 mm ... 30 mm [1]
Focus	15 mm
Type of light	Visible red light
Light source	PinPoint LED [2]
Light spot size (distance)	Ø 1.5 mm (15 mm)
Wave length	660 nm
Adjustment	None

[1] Object with 90 % reflectance (referred to standard white, DIN 5033).
[2] Average service life: 75,000 h at T_U = +25 °C.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC [1]
Ripple	≤ 5 V_{pp} [2]
Switching output	NPN
Switching mode	Light switching
Output current $I_{max.}$	≤ 50 mA
Response time	< 0.6 ms [3]
Switching frequency	800 Hz [4]
Connection type	Cable, 3-wire, 2 m [5]
Cable material	PVC
Cable diameter	Ø 2.4 mm
Circuit protection	A [6] C [7] D [8]
Weight	18 g
Reverse polarity protection	✓
Short-circuit protection	✓
Housing material	Plastic, ABS
Optics material	Plastic, PMMA
Enclosure rating	IP67 IP69K
Ambient operating temperature	−20 °C ... +50 °C
Ambient storage temperature	−40 °C ... +75 °C

[1] Limit values.

[2] May not exceed or fall below U_v tolerances.

[3] Signal transit time with resistive load.

[4] With light/dark ratio 1:1.

[5] Do not bend below 0 °C.

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

[7] C = interference suppression.

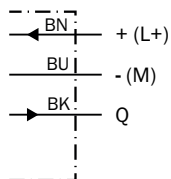[8] D = outputs overcurrent and short-circuit protected.

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

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ETIM 6.0	EC002719
ETIM 7.0	EC002719
UNSPSC 16.0901	39121528

Connection diagram

Cd-043

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   BN      + (L+)
   BU      - (M)
   BK      Q
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Light spot size

WT2S, 30 mm

Ø 1.0 (0.04)
Ø 3.0 (0.12)   Ø 1.2 (0.05)   Ø 2.0 (0.08)   Ø 4.5 (0.18)

Sensor

Distance
0   10 (0.39)   15 (0.59)   20 (0.79)   25 (0.79)   30 (1.18)
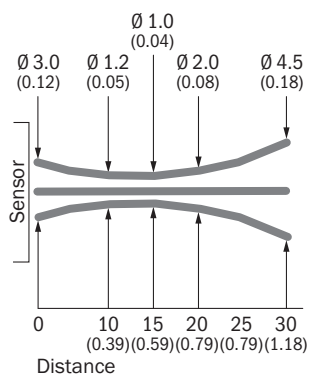
All dimensions in mm (inch)

Sensing range diagram

WT2S, 30 mm

①	4	26
②	2	28
③	1	30

0   5 (0.20)   10 (0.39)   15 (0.59)   20 (0.79)   25 (0.98)   30 (1.18)
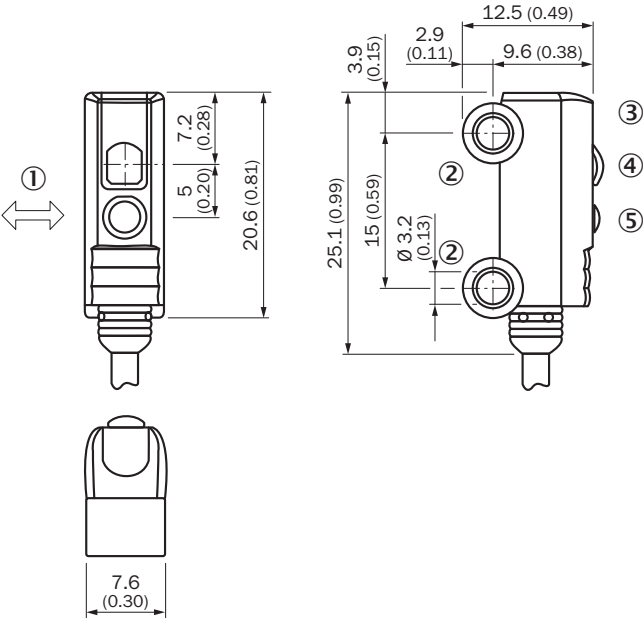Distance in mm (inch)
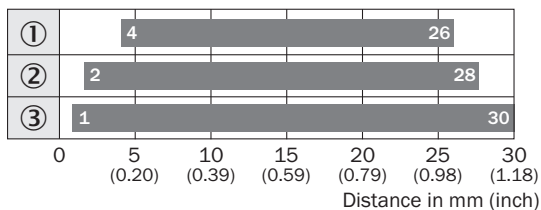
■ Sensing range

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))

WT2S, background suppression

① Standard direction of the material being detected
② Mounting hole, ø approx. 3.1 mm
③ Receive indicator
④ Optical axis, receiver
⑤ Optical axis, sender

Recommended accessories

Other models and accessories ➜ www.sick.com/W2_Slim

	Brief description	Type	Part no.
Plug connectors and cables			
	Head A: male connector, M8, 3-pin, straight Head B: - Cable: unshielded	STE-0803-G	6037322

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

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.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is "Sensor Intelligence."

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