

WTB2S-2N3060S19

W2

PHOTOELECTRIC SENSORS





Ordering information

Туре	part no.
WTB2S-2N3060S19	1078050

Included in delivery: SCREW SET W2S/G2S (1)

Other models and accessories → www.sick.com/W2

Illustration may differ



Detailed technical data

Features

Functional principle	Photoelectric proximity sensor
Functional principle detail	Background suppression
Dimensions (W x H x D)	7.7 mm x 21.8 mm x 13.5 mm
Housing design (light emission)	Rectangular
Sensing range max.	3 mm 130 mm ¹⁾
Sensing range	5 mm 90 mm ²⁾
Background suppression typ. from	70 mm
Type of light	Visible red light
Light source	PinPoint LED ³⁾
Light spot size (distance)	Ø 4.5 mm (40 mm)
Wave length	640 nm
Adjustment	None
Special applications	Detecting small objects

 $^{^{1)}}$ Object with 90% remission (based on standard white, DIN 5033).

 $^{^{2)}}$ Object with 6 % reflectance (referred to standard black, DIN 5033).

 $^{^{3)}}$ Average service life: 100,000 h at T_{U} = +25 °C.

Mechanics/electronics

,	
Supply voltage U _B	10 V DC 30 V DC ¹⁾
Ripple	< 5 V _{pp} ²⁾
Current consumption	20 mA ³⁾
Switching output	NPN
Switching mode	Light switching
Output current I _{max.}	≤ 50 mA
Response time	< 0.5 ms ⁴⁾
Switching frequency	1,000 Hz ⁵⁾
Connection type	Cable with special male connector, 4-pin, 500 mm ⁶⁾
Cable material	Plastic, PVC
Conductor cross section	0.09 mm ²
Cable diameter	Ø 3 mm
Circuit protection	A ⁷⁾ B ⁸⁾ D ⁹⁾
Housing material	Plastic, ABS/PC
Optics material	Plastic, PMMA
Enclosure rating	IP67
Ambient operating temperature	-25 °C +50 °C
Ambient temperature, storage	-40 °C +75 °C
UL File No.	NRKH.E181493

¹⁾ Limit values.

Safety-related parameters

MTTF _D	1,705 years
DC _{avg}	0 %

Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
cULus certificate	✓
Photobiological safety (DIN EN 62471) certificate	✓

 $^{^{2)}}$ May not fall below or exceed 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 = output reverse-polarity protected.

 $^{^{9)}}$ D = outputs overcurrent and short-circuit protected.

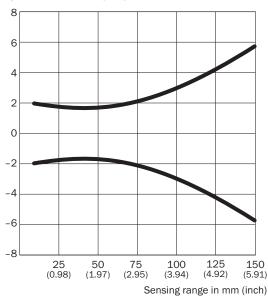
Classifications

ECLASS 5.0	27270904
ECLASS 5.1.4	27270904
ECLASS 6.0	27270904
ECLASS 6.2	27270904
ECLASS 7.0	27270904
ECLASS 8.0	27270904
ECLASS 8.1	27270904
ECLASS 9.0	27270904
ECLASS 10.0	27270904
ECLASS 11.0	27270904
ECLASS 12.0	27270903
ETIM 5.0	EC002719
ETIM 6.0	EC002719
ETIM 7.0	EC002719
ETIM 8.0	EC002719
UNSPSC 16.0901	39121528

Connection diagram Cd-045

Light spot size WTB2S-2, 150 mm

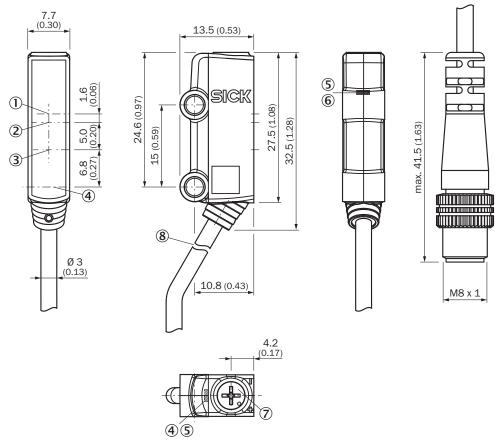
Spot diameter in mm (inch)



Dimensions in mm (inch)

Sensing range	Spot diameter	
10	4.0	
(0.39)	(0.16)	
20	3.7	
(0.79)	(0.15)	
40	3.4	
(1.57)	(0.13)	
80	4.4	
(3.15)	(0.17)	
120	8.0	
(4.72)	(0.31)	
150	11.5	
(5.91)	(0.45)	

Dimensional drawing WTB2S-2, 150 mm



Dimensions in mm (inch)

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PHOTOELECTRIC SENSORS

- ① Optical axis, receiver (sensing range min.)
- ② Optical axis, receiver (sensing range max.)
- 3 Optical axis, sender
- 4 Fixing hole ø 3.2 mm
- (5) LED indicator green: Supply voltage active
- 6 LED indicator yellow: Status of received light beam
- The sensing range adjustment: potentiometer, 3 turns
- ® Connection

Recommended accessories

Other models and accessories → www.sick.com/W2

	Brief description	Туре	part no.	
Mounting sys	Mounting systems			
	 Description: Mounting bracket for floor mounting Material: Steel Details: Steel, zinc coated Items supplied: Without mounting hardware Suitable for: W2S-2 	BEF-W2S-A	4034748	

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