

WTB2S-2F1360S03

W2

**PHOTOELECTRIC SENSORS** 





## Ordering information

Туре	part no.
WTB2S-2F1360S03	1072307

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.	1 mm 60 mm <sup>1)</sup>
Sensing range	5 mm 60 mm <sup>1)</sup>
Background suppression typ. from	70 mm
Type of light	Visible red light
Light source	PinPoint LED <sup>2)</sup>
Light spot size (distance)	Ø 4.5 mm (40 mm)
Wave length	640 nm
Adjustment	None
Special applications	Detecting small objects
Special features	Reduced sensitivity

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

 $<sup>^{2)}</sup>$  Average service life: 100,000 h at  $\rm T_U$  = +25  $^{\circ}\rm C.$ 

#### Mechanics/electronics

Supply voltage U <sub>B</sub>	10 V DC 30 V DC <sup>1)</sup>
Ripple	< 5 V <sub>pp</sub> <sup>2)</sup>
Current consumption	20 mA <sup>3)</sup>
Switching output	PNP
Switching mode	Dark switching
Output current I <sub>max.</sub>	≤ 50 mA
Response time	< 0.5 ms <sup>4)</sup>
Switching frequency	1,000 Hz <sup>5)</sup>
Connection type	Cable, 3-wire, 2 m <sup>6)</sup>
Cable material	Plastic, PVC
Conductor cross section	0.09 mm <sup>2</sup>
Cable diameter	Ø 3 mm
Circuit protection	A <sup>7)</sup> B <sup>8)</sup> D <sup>9)</sup>
Special device	<b>✓</b>
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

<sup>1)</sup> Limit values.

#### 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	✓

#### Classifications

ECLASS 5.0	27270904
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<sup>2)</sup> May not fall below or exceed U<sub>V</sub> tolerances.

<sup>3)</sup> Without load.

<sup>4)</sup> Signal transit time with resistive load.

<sup>5)</sup> With light/dark ratio 1:1.

<sup>6)</sup> Do not bend below 0 °C.

 $<sup>^{7)}</sup>$  A = V<sub>S</sub> connections reverse-polarity protected.

<sup>8)</sup> B = output reverse-polarity protected.

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

## PHOTOELECTRIC SENSORS

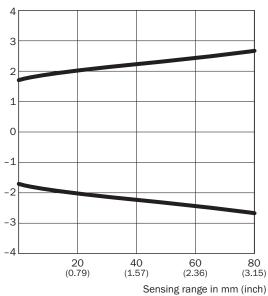
ECLASS 5.1.4	27270904
ECLASS 6.0	27270904
ECLASS 6.2	27270904
ECLASS 7.0	27270904
ECLASS 8.0	27270904
ECLASS 8.1	27270904
ECLASS 9.0	27270904
ECLASS 10.0	27270904
ECLASS 11.0	27270904
ECLASS 12.0	27270903
ETIM 5.0	EC002719
ETIM 6.0	EC002719
ETIM 7.0	EC002719
ETIM 8.0	EC002719
UNSPSC 16.0901	39121528

## Connection diagram Cd-044



## Light spot size WTB2S-2, 66 mm

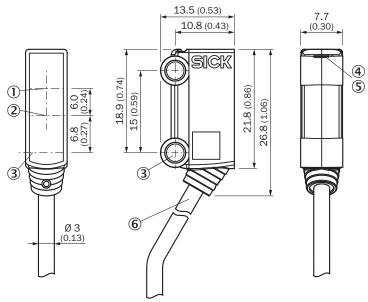
Spot diameter in mm (inch)



#### Dimensions in mm (inch)

Sensing range	Spot diameter
10	3.8
(0.39)	(0.15)
<b>20</b> (0.79)	4.0 (0.16)
40	4.5
(1.57)	(0.18)
80	5.4
(3.15)	(0.21)

## Dimensional drawing WTB2S-2, 66 mm, 90 mm, 110 mm



Dimensions in mm (inch)

- ① Optical axis, receiver
- 2 Optical axis, sender
- 3 Middle axis fixing hole Ø 3.2 mm
- ④ LED indicator green: Supply voltage active
- ⑤ LED indicator yellow: Status of received light beam
- © Connection

#### Recommended accessories

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

	Brief description	Туре	part no.	
Mounting syst	Mounting systems			
	<ul> <li>Description: Mounting bracket for floor mounting</li> <li>Material: Steel</li> <li>Details: Steel, zinc coated</li> <li>Items supplied: Without mounting hardware</li> <li>Suitable for: W2S-2</li> </ul>	BEF-W2S-A	4034748	
	<ul> <li>Description: Plate N11N for universal clamp bracket</li> <li>Material: Stainless steel</li> <li>Details: Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)</li> <li>Items supplied: Universal clamp (5322627), mounting hardware</li> <li>Usable for: DeltaPac, Glare, WTD20E</li> </ul>	BEF-KHS-N11N	2071081	

# WTB2S-2F1360S03 | W2

## PHOTOELECTRIC SENSORS

	Brief description	Туре	part no.
connectors an	nd cables		
	<ul> <li>Connection type head A: Male connector, M8, 3-pin, straight, A-coded</li> <li>Description: Unshielded</li> <li>Connection systems: Screw-type terminals</li> <li>Permitted cross-section: 0.14 mm² 0.5 mm²</li> </ul>	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."

# **WORLDWIDE PRESENCE:**

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