

WTT2SLC-2P3092B03

# WTT2 PowerProx

## TIME-OF-FLIGHT SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ



Ordering information

Type	part no.
WTT2SLC-2P3092B03	1102568

Other models and accessories → [www.sick.com/WTT2\\_PowerProx](http://www.sick.com/WTT2_PowerProx)

Detailed technical data

Features

Functional principle	Photoelectric proximity sensor
Functional principle detail	Background suppression, Optical time-of-flight
Housing design (light emission)	Rectangular
Sensing range max.	50 mm ... 800 mm <sup>1)</sup>
Sensing range	50 mm ... 800 mm <sup>1)</sup>
Distance value	
Repeatability	2 mm ... 5 mm <sup>2)</sup>
Accuracy	± 20 mm
Type of light	Infrared light
Light source	Laser <sup>3)</sup>
Light spot size (distance)	Ø 10 mm (300 mm)
Wave length	940 nm
Laser class	1
Adjustment	Single teach-in button, IO-Link <sup>4)</sup>
Special applications	Detecting small objects
Safety-related parameters	

<sup>1)</sup> Object with 6 ... 90% remission (based on standard white, DIN 5033).

<sup>2)</sup> Equivalent to 1  $\sigma$ .

<sup>3)</sup> Average service life: 50,000 h at T<sub>U</sub> = +25 °C.

<sup>4)</sup> Teach-Offset 15 mm.

MTTF <sub>D</sub>	925 years
DC <sub>avg</sub>	0 %

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## Interfaces

<b>Communication interface</b>	IO-Link V1.1
<b>Communication Interface detail</b>	COM2 (38,4 kBaud)
<b>Cycle time</b>	5 ms
<b>Process data length</b>	4 Byte
<b>Process data structure</b>	Bit 0 = switching signal Q <sub>L1</sub> Bit 1 = switching signal Q <sub>L2</sub> Bit 2 = detection signal Q <sub>int.1</sub> Bit 3 = detection signal Q <sub>int.2</sub> Bit 4 ... 15 = empty Bit 16 ... 31 = distance value
<b>VendorID</b>	26
<b>DeviceID HEX</b>	0x8001B8
<b>DeviceID DEC</b>	8389048

## Electronics

<b>Supply voltage U<sub>B</sub></b>	10 V DC ... 30 V DC <sup>1)</sup>
<b>Ripple</b>	< 5 V <sub>pp</sub> <sup>2)</sup>
<b>Current consumption</b>	20 mA <sup>3)</sup>
<b>Switching output</b>	PNP
<b>Switching mode</b>	Light/dark switching
<b>Output current I<sub>max.</sub></b>	≤ 50 mA
<b>Response time</b>	Typ. 95 ms <sup>4)</sup>
<b>Switching frequency</b>	5 Hz <sup>5)</sup>
<b>Analog output</b>	-
<b>Circuit protection</b>	A <sup>6)</sup> B <sup>7)</sup> D <sup>8)</sup>
<b>Protection class</b>	III
<b>Enclosure rating</b>	IP67

<sup>1)</sup> Limit values. Operated in short-circuit protected network: max. 8 A.

<sup>2)</sup> May not fall below or exceed U<sub>y</sub> tolerances.

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

<sup>4)</sup> Jitter +/- 20 ms.

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

<sup>6)</sup> A = V<sub>S</sub> connections reverse-polarity protected.

<sup>7)</sup> B = output reverse-polarity protected.

<sup>8)</sup> D = outputs overcurrent and short-circuit protected.

## Mechanics

<b>Dimensions (W x H x D)</b>	7.7 mm x 27.5 mm x 13.5 mm
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<b>Housing material</b>	Plastic, MABS ABS
<b>Optics material</b>	Plastic, PMMA
<b>Connection type</b>	Cable with JST-connector, 300 mm
<b>Connection type Detail</b>	
Cable diameter	Ø 3 mm
Cable material	Plastic, PVC

## Ambient data

<b>Ambient operating temperature</b>	-25 °C ... +50 °C
<b>Ambient temperature, storage</b>	-40 °C ... +75 °C

## Smart Task

<b>Smart Task name</b>	Base logics
<b>Logic function</b>	Direct AND OR WINDOW Hysteresis
<b>Timer function</b>	Deactivated Switch-on delay Off delay ON and OFF delay Impulse (one shot)
<b>Inverter</b>	Yes
<b>Switching frequency</b>	SIO Direct: 5 Hz <sup>1)</sup> SIO Logic: 5 Hz <sup>2)</sup> IOL: 5 Hz <sup>3)</sup>
<b>Response time</b>	SIO Direct: typ. 90 ms <sup>1)</sup> SIO Logic: typ. 90 ms <sup>2)</sup> IOL: typ. 95 ms <sup>3)</sup>
<b>Repeatability</b>	<sup>2)</sup> <sup>3)</sup>

<sup>1)</sup> SIO Direct: sensor operation in standard I/O mode without IO-Link communication and without using internal sensor logic or time parameters (set to "direct"/"deactivated").

<sup>2)</sup> SIO Logic: Sensor operation in standard I/O mode without IO-Link communication. Sensor-internal logic or timing parameters plus Automation Functions used.

<sup>3)</sup> IOL: Sensor operation with full IO-Link communication and usage of logic, timing and Automation Function parameters.

## Certificates

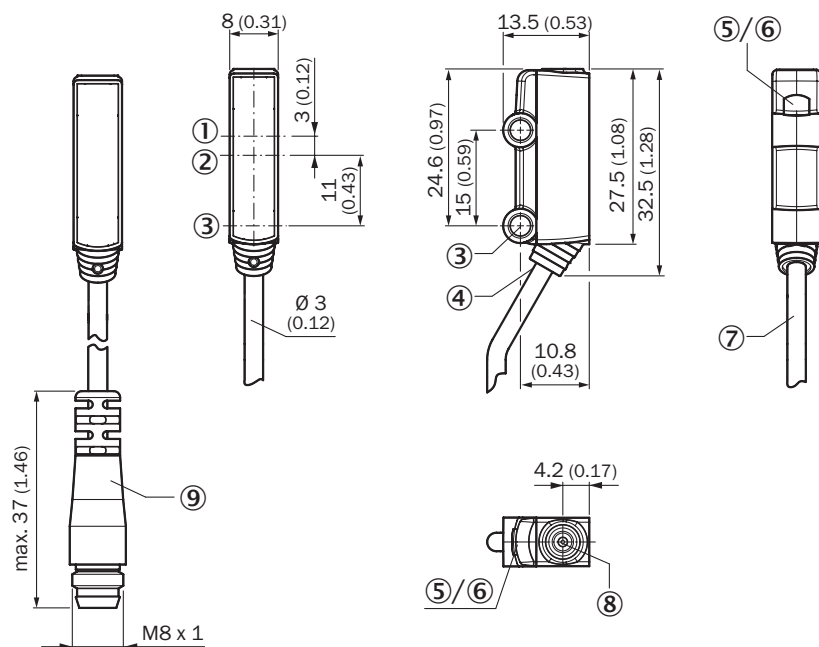
<b>EU declaration of conformity</b>	✓
<b>UK declaration of conformity</b>	✓
<b>ACMA declaration of conformity</b>	✓
<b>Moroccan declaration of conformity</b>	✓
<b>China-RoHS</b>	✓
<b>cULus certificate</b>	✓
<b>IO-Link</b>	✓
<b>Laser safety (IEC 60825-1) certificate</b>	✓

## Classifications

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

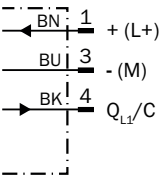
## Dimensional drawing



Dimensions in mm (inch)

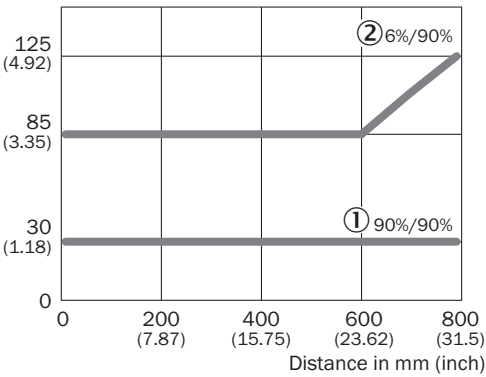
- ① optical axis, receiver
- ② optical axis, sender
- ③ Mounting hole, Ø 3.2 mm
- ④ Connection
- ⑤ LED indicator green: Supply voltage active
- ⑥ LED indicator yellow: Status of received light beam
- ⑦ cable
- ⑧ single teach-in button
- ⑨ Cable with JST-connector

Connection diagram Cd-434



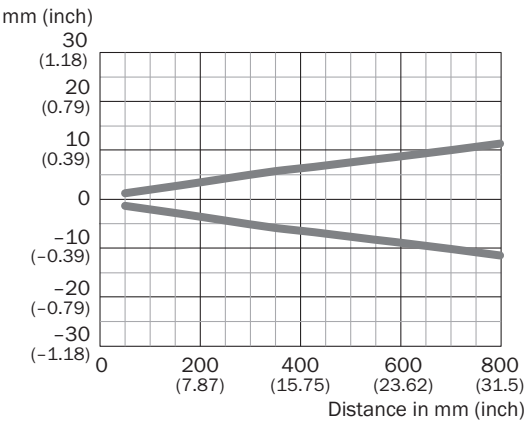
Characteristic curve

Min. distance from object to background in mm (inch)




- ① Sensing range on white, 90% remission factor
- ② Sensing range on black, 6% remission factor

Light spot size



Recommended accessories

Other models and accessories → [www.sick.com/WTT2\\_PowerProx](http://www.sick.com/WTT2_PowerProx)

	Brief description	Type	part no.
Mounting systems			
	<ul style="list-style-type: none"><li>• <b>Description:</b> Mounting bracket for wall mounting</li><li>• <b>Material:</b> Steel</li><li>• <b>Details:</b> Steel, zinc coated</li><li>• <b>Items supplied:</b> Without mounting hardware</li><li>• <b>Suitable for:</b> W2S-2</li></ul>	BEF-W2S-B	4034749

## 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:

Contacts and other locations –[www.sick.com](http://www.sick.com)