



# WTT4SLC-3B2232B07

WTT4 PowerProx

TIME-OF-FLIGHT SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ



Ordering information

Type	part no.
WTT4SLC-3B2232B07	1133895

Other models and accessories → [www.sick.com/WTT4\\_PowerProx](http://www.sick.com/WTT4_PowerProx)

Detailed technical data

Features

Functional principle	Photoelectric proximity sensor
Functional principle detail	Background suppression, Optical time-of-flight, distance value
Housing design (light emission)	Rectangular
Sensing range max.	50 mm ... 1,000 mm <sup>1)</sup>
Sensing range	100 mm ... 1,000 mm <sup>2)</sup>
Distance value	
Measuring range	90 mm ... 1,000 mm <sup>1)</sup>
Resolution	1,000 µm
Repeatability	7,5 mm ... 13 mm <sup>3) 4) 5)</sup>
Accuracy	- 10 mm, + 80 mm
Distance value output	Via IO-Link
Update rate of the distance value	0.8 ms
Type of light	Visible red light
Light source	Laser <sup>6)</sup>

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

<sup>2)</sup> Adjustable.

<sup>3)</sup> Equivalent to 1 σ.

<sup>4)</sup> See characteristic curves repeatability.

<sup>5)</sup> 6% ... 90% remission factor.

<sup>6)</sup> Average service life: 50,000 h at T<sub>U</sub> = +25 °C.

<sup>7)</sup> Do not intentionally look into the laser beam. Never point the laser beam at people's eyes.

<b>Light spot size (distance)</b>	Ø 4 mm (1,000 mm)
<b>Wave length</b>	658 nm
<b>Laser class</b>	1 (IEC 60825-1 / CDRH 21 CFR 1040.10 & 1040.11) <sup>7)</sup>
<b>Adjustment</b>	Single teach-in button, IO-Link
<b>Pin 2 configuration</b>	External input, Teach-in input, Sender off input, Detection output, logic output
<b>Special features</b>	Sensing range preset: $Q_{L1} = 275$ mm
<b>Safety-related parameters</b>	MTTF <sub>D</sub> 256 years
	DC <sub>avg</sub> 0 %
	T <sub>M</sub> (mission time) 20 years

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## Interfaces

<b>Communication interface</b>	IO-Link V1.1
<b>Communication Interface detail</b>	COM3 (230,4 kBaud)
<b>Cycle time</b>	0.8 ms
<b>Process data length</b>	4 Byte
<b>Process data structure</b>	Bit 0 = switching signal $Q_{L1}$ Bit 1 = switching signal $Q_{L2}$ Bit 2 = detection signal Q <sub>int.1</sub> Bit 3 = detection signal Q <sub>int.2</sub> Bit 4 = detection signal Q <sub>int.3</sub> Bit 5 = detection signal Q <sub>int.4</sub> Bit 6 = detection signal Q <sub>int.5</sub> Bit 7 = detection signal Q <sub>int.6</sub> Bit 8 = detection signal Q <sub>int.7</sub> Bit 9 = detection signal Q <sub>int.8</sub> Bit 10 ... 15 = empty Bit 16 ... 31 = distance value
<b>VendorID</b>	26
<b>DeviceID HEX</b>	0x800327
<b>DeviceID DEC</b>	8389415

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

<sup>2)</sup> Without load.

<sup>3)</sup> Signal transit time with resistive load.

<sup>4)</sup> With light/dark ratio 1:1.

<sup>5)</sup> A = V<sub>S</sub> connections reverse-polarity protected.

<sup>6)</sup> B = output reverse-polarity protected.

<sup>7)</sup> D = outputs overcurrent and short-circuit protected.

<sup>8)</sup> Below T<sub>U</sub> = -10 °C a warm-up time is necessary.

<b>Current consumption</b>	25 mA <sup>2)</sup>
<b>Switching output</b>	Push-pull: PNP/NPN
<b>Output function</b>	Factory setting: Pin 2 / white (MF): NPN normally open (light switching), PNP normally closed (dark switching), Pin 4 / black (QL1 / C): NPN normally closed (dark switching), PNP normally open (light switching), IO-Link
<b>Switching mode</b>	Light/dark switching
<b>Output current <math>I_{\max}</math></b>	$\leq 50$ mA
<b>Response time</b>	0.5 ms <sup>3)</sup>
<b>Switching frequency</b>	1,000 Hz <sup>4)</sup>
<b>Input</b>	MF <sub>in</sub> = multifunctional input programmable
<b>Circuit protection</b>	A <sup>5)</sup> B <sup>6)</sup> D <sup>7)</sup>
<b>Protection class</b>	III
<b>Enclosure rating</b>	IP67
<b>Warm-up time</b>	< 10 min <sup>8)</sup>
<b>Initialization time</b>	< 300 ms

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

<sup>2)</sup> Without load.

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## Mechanics

<b>Dimensions (W x H x D)</b>	12.2 mm x 41.8 mm x 17.3 mm
<b>Housing material</b>	Plastic, MABS ABS
<b>Optics material</b>	Plastic, PMMA
<b>Weight</b>	10 g
<b>Connection type</b>	Male connector M8, 4-pin

## Ambient data

<b>Ambient operating temperature</b>	-40 °C ... +50 °C <sup>1)</sup>
<b>Ambient temperature, storage</b>	-40 °C ... +75 °C

<sup>1)</sup> As of T<sub>a</sub> = 45 °C, a max.load current I<sub>max</sub> = 50 mA is permitted.

## 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 signal</b>	
Switching signal Q <sub>L1</sub>	Switching output
Switching signal Q <sub>L2</sub>	Switching output

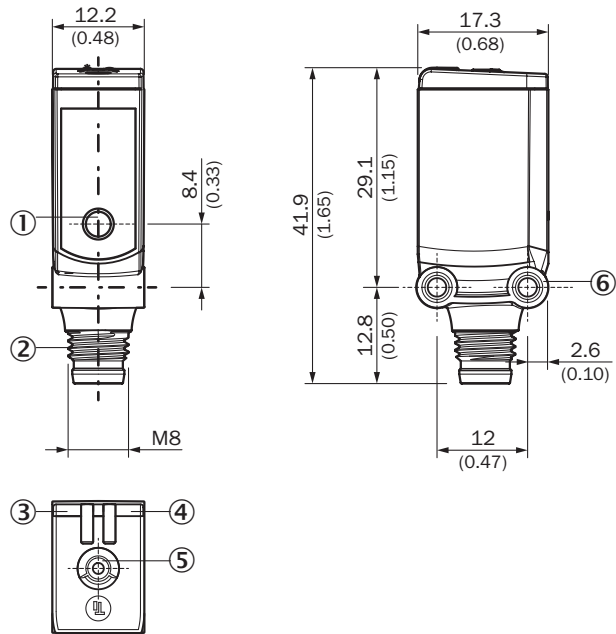
## Classifications

<b>ECLASS 5.0</b>	27270904
<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

## 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 certificate</b>	✓
<b>Laser safety (IEC 60825-1) certificate</b>	✓
<b>Information according to Art. 3 of Data Act (Regulation EU 2023/2854)</b>	✓

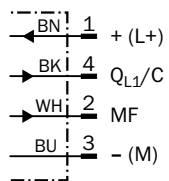
### Dimensional drawing



Dimensions in mm (inch)

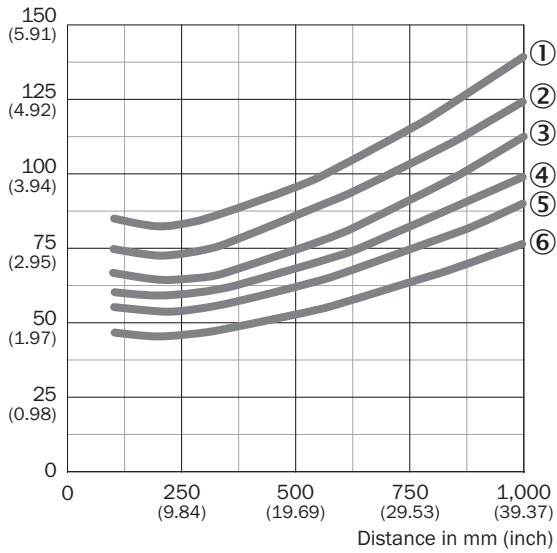
- ① Center of optical axis
- ② Connection
- ③ LED indicator green: power
- ④ LED indicator yellow: Status of received light beam
- ⑤ single teach-in button
- ⑥ Threaded mounting hole M3

### Connection diagram Cd-367



## Characteristic curve

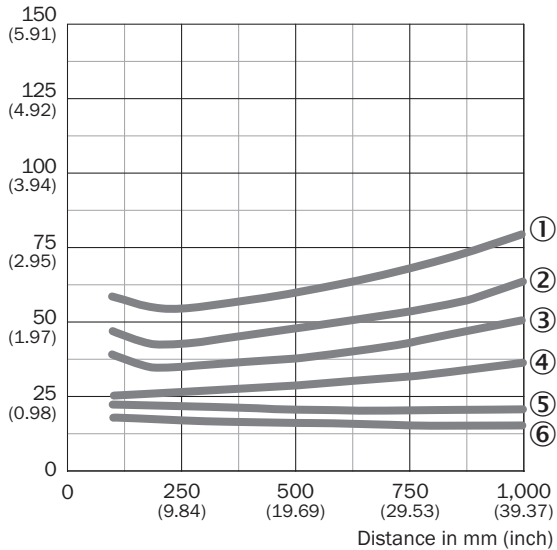
Min. distance from object to background in mm (inch)



- ① 6 % / 90 % AVG1
- ② 6 % / 90 % AVG2
- ③ 6 % / 90 % AVG4
- ④ 6 % / 90 % AVG8
- ⑤ 6 % / 90 % AVG64
- ⑥ 6 % / 90 % AVG512

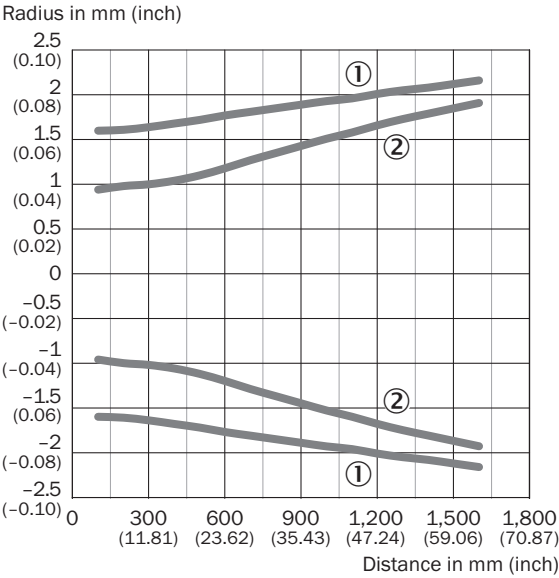
## Characteristic curve

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



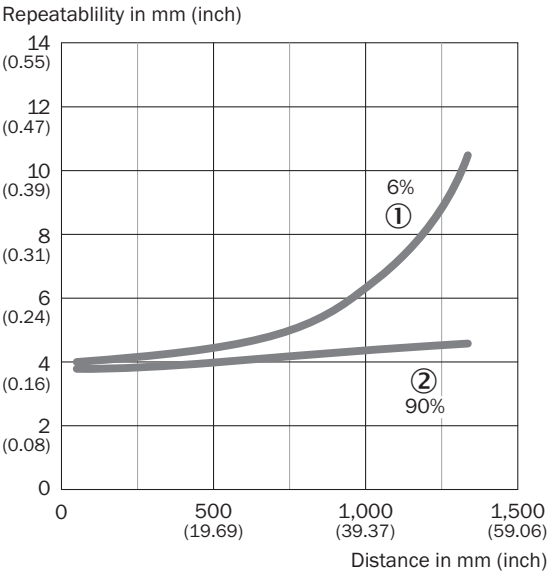
- ① 90 % / 90 % AVG1
- ② 90 % / 90 % AVG2
- ③ 90 % / 90 % AVG4
- ④ 90 % / 90 % AVG8
- ⑤ 90 % / 90 % AVG64
- ⑥ 90 % / 90 % AVG512

Light spot size



- ① Light spot horizontal  
② Light spot vertical




Repeatability



- ① 6 % remission, on black  
② 90 % remission, on white

## Recommended accessories

Other models and accessories → [www.sick.com/WTT4\\_PowerProx](http://www.sick.com/WTT4_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> Stainless steel</li> <li><b>Details:</b> Stainless steel 1.4571</li> <li><b>Items supplied:</b> Mounting hardware included</li> <li><b>Suitable for:</b> W4S, W4F, W4S</li> </ul>	BEF-W4-A	2051628
connectors and cables			
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Male connector, M8, 4-pin, straight, A-coded</li> <li><b>Description:</b> Unshielded</li> <li><b>Connection systems:</b> Screw-type terminals</li> <li><b>Permitted cross-section:</b> 0.14 mm² ... 0.5 mm²</li> </ul>	STE-0804-G	6037323
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M8, 4-pin, straight, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 5 m, 4-wire, PVC</li> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Uncontaminated zones, Zones with chemicals</li> </ul>	YF8U14-050VA3XLEAX	2095889

## 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)