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Product data sheet



WTT4SLC-3B2262B01

PowerProx

MULTITASK PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

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WTT4SLC-3B2262B01 | PowerProx

MULTITASK PHOTOELECTRIC SENSORS



Illustration may differ

Ordering information

Type	Part no.
WTT4SLC-3B2262B01	1106949

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

Detailed technical data

Features

Functional principle	Photoelectric proximity sensor
Functional principle detail	Background suppression, Optical time-of-flight
Dimensions (W x H x D)	12.2 mm x 41.8 mm x 17.3 mm
Housing design (light emission)	Rectangular
Sensing range max.	50 mm ... 1,300 mm [1]
Sensing range	100 mm ... 1,300 mm [2]
Distance value	
Measuring range	90 mm ... 1,300 mm [1]
Resolution	1 mm
Repeatability	4,5 mm ... 11 mm [3] [4] [5]
Accuracy	± 35 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 [6]
Light spot size (distance)	Ø 4.4 mm (1,300 mm)
Wave length	658 nm

[1] Object with 6 ... 90% remission (based on standard white, DIN 5033).
[2] Adjustable.
[3] Equivalent to 1 σ.
[4] See characteristic curves repeatability.
[5] 6% ... 90% remission factor.
[6] Average service life: 50,000 h at T_U = +25 °C.

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Laser class	1 (IEC 60825-1 / CDRH 21 CFR 1040.10 & 1040.11)
Adjustment	Single teach-in button IO-Link
Pin 2 configuration	External input, Teach-in input, Sender off input, Detection output, logic output

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Mechanics/electronics

Supply voltage U_B	10 V DC ... 30 V DC [1]
Ripple	< 5 V_{pp} [2]
Current consumption	25 mA [3]
Switching output	Push-pull: PNP/NPN
Output function	Factory setting: Pin 2 / white (MF): test input, Pin 4 / black: NPN normally closed (light switching), PNP normally open (dark switching)
Switching mode	Dark/light switching
Output current $I_{max.}$	≤ 50 mA
Response time	≤ 5 ms [4]
Switching frequency	100 Hz [5]
Input	MF_{in} = multifunctional input programmable
Connection type	Male connector M8, 4-pin
Circuit protection	A [6] B [7] D [8]
Protection class	III
Weight	10 g
Housing material	Plastic, MABS, ABS
Optics material	Plastic, PMMA
Enclosure rating	IP67
Ambient operating temperature	–40 °C ... +50 °C [9]
Ambient temperature, storage	–40 °C ... +75 °C
Warm-up time	< 10 min [10]
Initialization time	< 300 ms

[1] Limit values. Operated in short-circuit protected network: max. 8 A.
[2] May not exceed or fall below U_V tolerances.
[3] Without load.
[4] Signal transit time with resistive load.
[5] With light/dark ratio 1:1.
[6] A = V_S connections reverse-polarity protected.
[7] B = output reverse-polarity protected.
[8] D = outputs overcurrent and short-circuit protected.
[9] As of T_a = 45 °C, a max.load current I_{max} = 50 mA is permitted.
[10] Below T_u = –10 °C a warm-up time is necessary.

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UL File No.	E181493

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Safety-related parameters

$MTTF_D$	256 years
DC_{avg}	0 %
T_M (mission time)	20 years

Communication interface

Communication interface	IO-Link V1.1
Communication Interface detail	COM3 (230,4 kBaud)
Cycle time	0.8 ms
Process data length	4 Byte
Process data structure	Bit 0 = switching signal Q_{L1} Bit 1 = switching signal Q_{L2} Bit 2 = detection signal Qint.1 Bit 3 = detection signal Qint.2 Bit 4 = detection signal Qint.3 Bit 5 = detection signal Qint.4 Bit 6 = detection signal Qint.5 Bit 7 = detection signal Qint.6 Bit 8 = detection signal Qint.7 Bit 9 = detection signal Qint.8 Bit 10 ... 15 = empty Bit 16 ... 31 = distance value
VendorID	26
DeviceID HEX	0x800264
DeviceID DEC	8389220

Smart Task

Smart Task name	Base logics
Logic function	Direct AND OR WINDOW Hysteresis
Timer function	Deactivated On delay Off delay ON and OFF delay Impulse (one shot)
Inverter	Yes
Switching signal	
Switching signal Q_{L1}	Switching output

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Switching signal Q_{L2}	Switching output

Diagnosis

Device temperature	
Measuring range	-127 °C ... +127 °C
Device status	Yes
Operating hour counter	Yes

Classifications

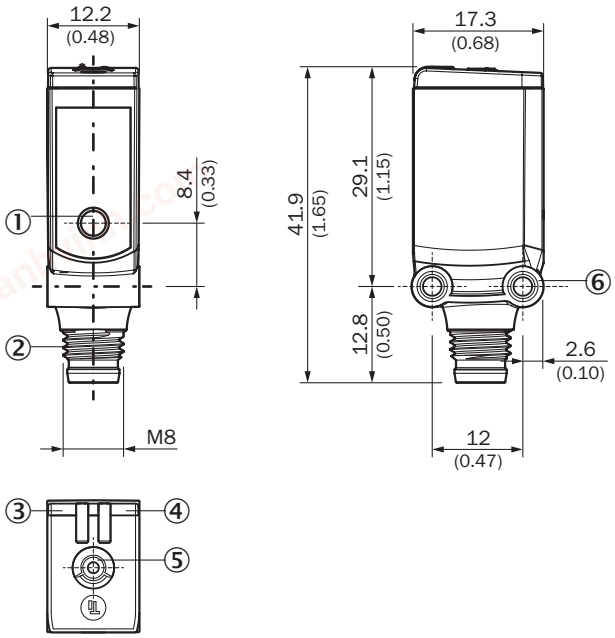
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eCl@ss 5.1.4	27270904
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UNSPSC 16.0901	39121528

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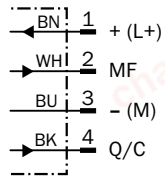
Dimensional drawing (Dimensions in mm (inch))



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-450

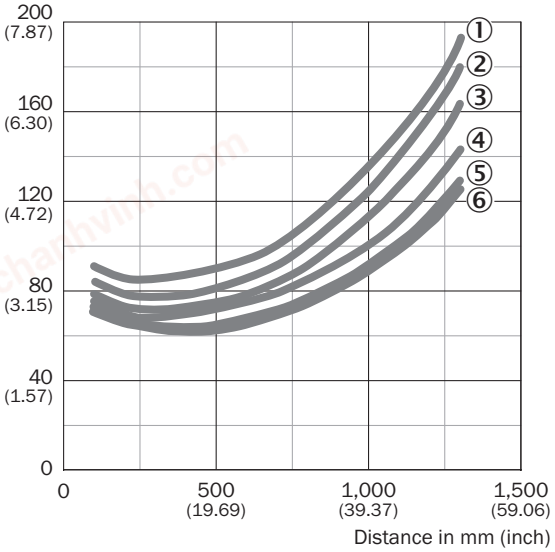


Default: MF = Test

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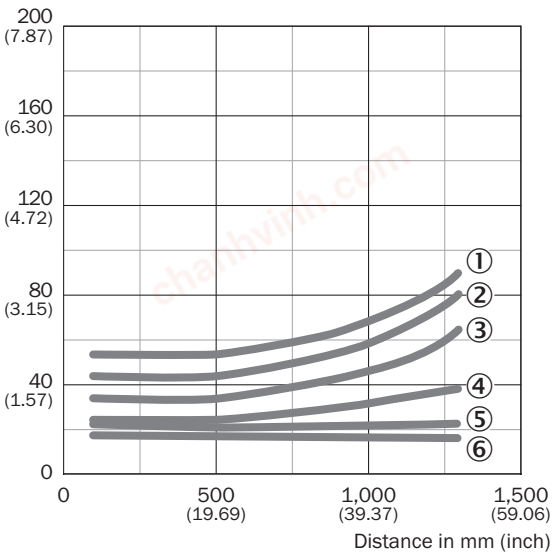
Characteristic curve

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



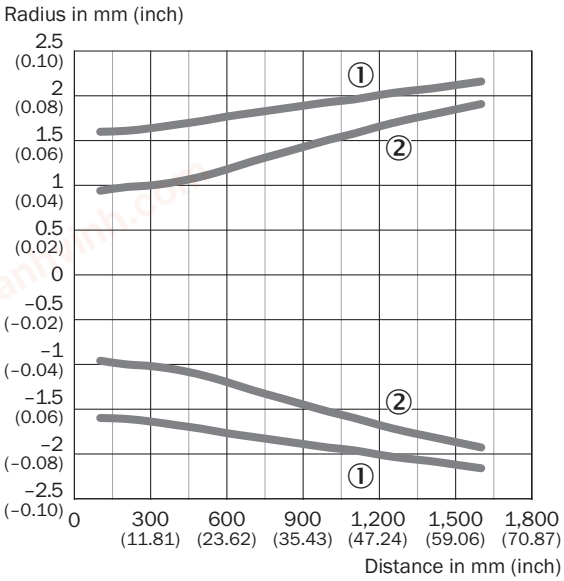
① 6 % / 90 % AVG1
② 6 % / 90 % AVG2
③ 6 % / 90 % AVG4
④ 6 % / 90 % AVG8
⑤ 6 % / 90 % AVG64
⑥ 6 % / 90 % AVG512

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



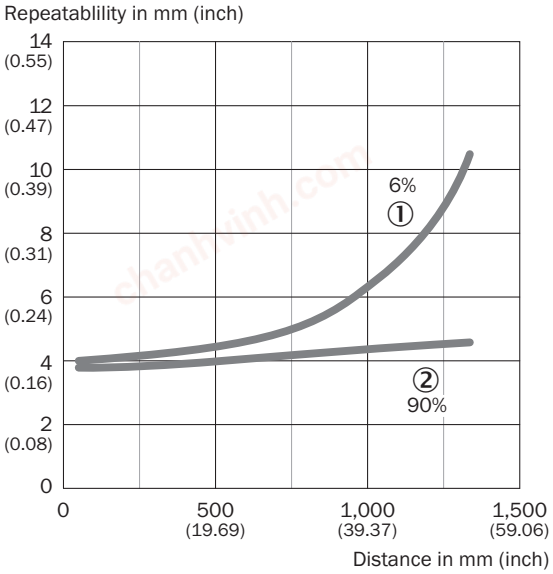
① 90 % / 90 % AVG1
② 90 % / 90 % AVG2
③ 90 % / 90 % AVG4
④ 90 % / 90 % AVG8
⑤ 90 % / 90 % AVG64
⑥ 90 % / 90 % AVG512

Light spot size



① Light spot horizontal
② Light spot vertical

Repeatability



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

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Recommended accessories

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

	Brief description	Type	Part no.
Universal bar clamp systems			
	Plate N08N for universal clamp bracket, Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp), Universal clamp (5322627), mounting hardware	BEF-KHS-N08N	2051616

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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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