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DATA SHEET

WTB4-3P2192

MultiLine
Photoelectric sensors

SICK Sensor Intelligence



Illustration may differ

PHOTOELECTRIC SENSORS

WTB4-3P2192

ORDERING INFORMATION

Type	part no.
WTB4-3P2192	1058268

Further device versions and accessories at www.sick.com/MultiLine

DETAILED TECHNICAL DATA

FEATURES

Functional principle	Photoelectric proximity sensor
Functional principle detail	Background suppression
Dimensions (W x H x D)	16 mm x 39.5 mm x 12 mm
Housing design (light emission)	Rectangular
Sensing range max.	5 mm ... 120 mm [1]
Sensing range	40 mm ... 120 mm [1]
Type of light	Visible red light
Light source	PinPoint LED [2]
Light spot size (distance)	5 mm x 22 mm (40 mm) [3]
Wave length	650 nm
Adjustment	Single teach-in button
Special feature	Line-shaped light spot
Special applications	Detecting perforated objects, Detecting uneven, shiny objects, Detecting objects wrapped in film
Special features	Multi-background suppression

[1] Object with 90% remission (based on standard white, DIN 5033).

[2] Average service life: 100,000 h at T_U = +25 °C.

[3] Two parallel line-shaped light spots.

MECHANICS/ELECTRONICS

Supply voltage	10 V DC ... 30 V DC [1]
Ripple	< 5 V_{pp} [2]
Current consumption	30 mA [3]
Switching output	PNP
Switching mode	Light switching
Output current $I_{max.}$	≤ 100 mA
Response time	< 1.2 ms [4]
Switching frequency	400 Hz [5]
Connection type	Connector M8, 3-pin [6]
Circuit protection	A [7] C [8] D [9]
Protection class	III
Weight	30 g
Housing material	Plastic, ABS
Optics material	Plastic, PMMA
Enclosure rating	IP67 IP66
Special feature	Line-shaped light spot
Ambient operating temperature	–40 °C ... +60 °C
Ambient temperature, storage	–40 °C ... +75 °C
UL File No.	NRKH.E181493 & NRKH7.E181493

[1] Limit values when 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.

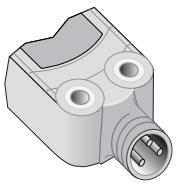
[6] Do not bend below 0 °C.

[7] A = V_s connections reverse-polarity protected.

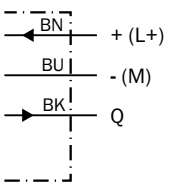
[8] C = interference suppression.

[9] D = outputs overcurrent and short-circuit protected.

CONNECTION TYPE

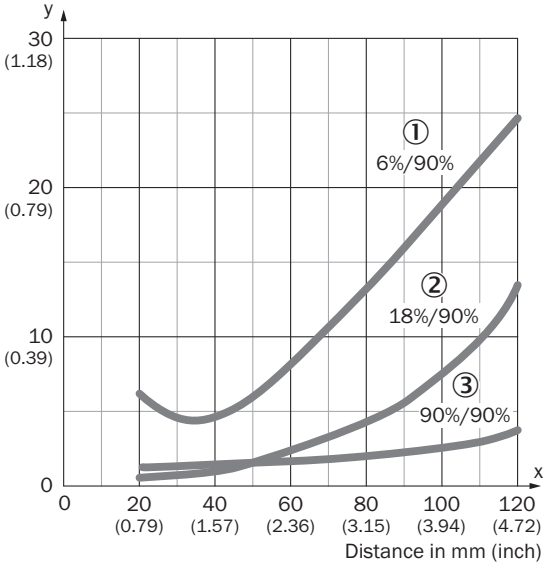


CONNECTION DIAGRAM CD-043



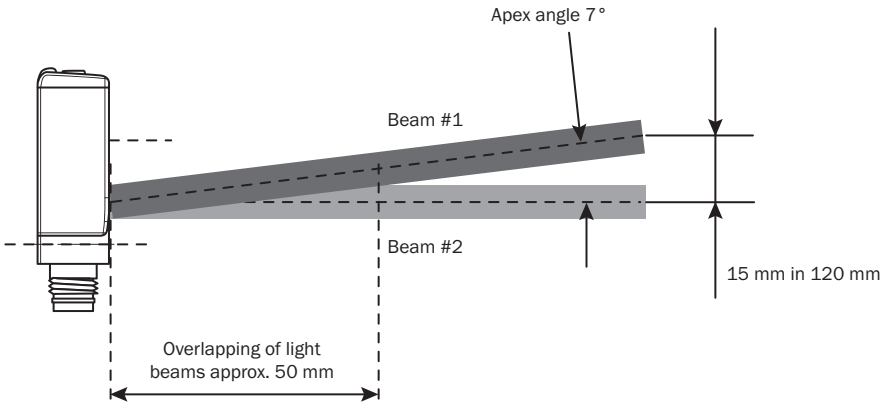
CHARACTERISTIC CURVE

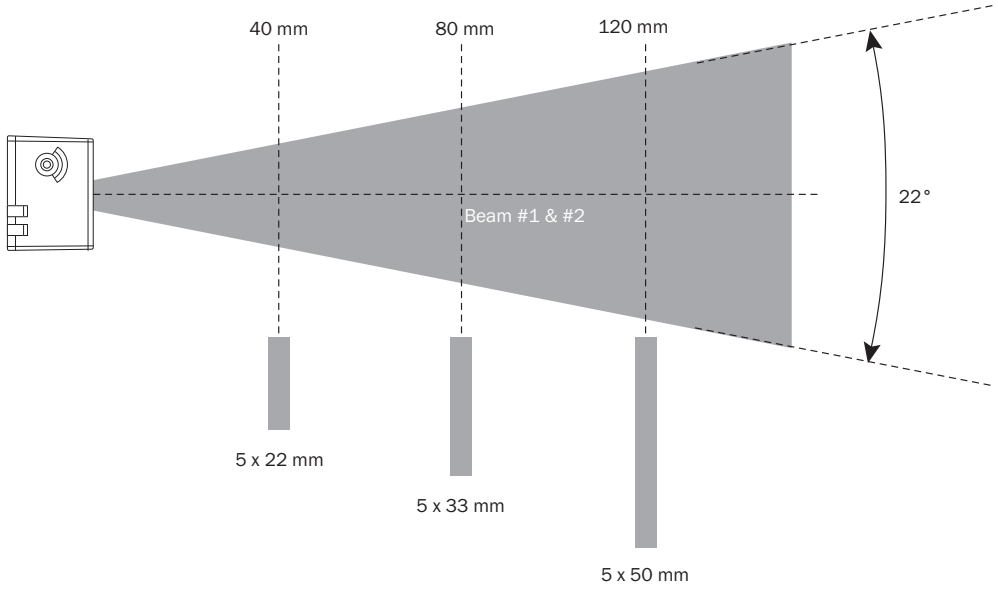
Minimum distance in mm (y) between the set sensing range and white background (90 % remission)



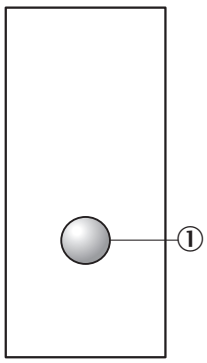
① Black object, 6% remission factor
② Gray object, 18% remission factor
③ White object, 90% remission factor

LIGHT SPOT SIZE



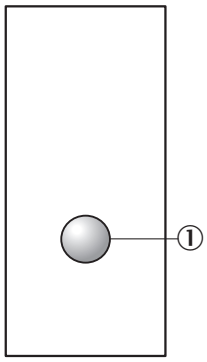


ADJUSTMENTS



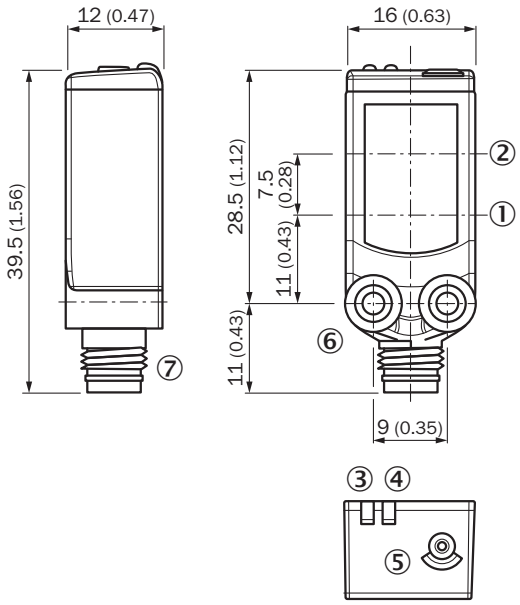
① Teach-in button

ADJUSTMENTS TEACH-IN BUTTON



① Teach-in button

DIMENSIONAL DRAWING



Dimensions in mm (inch)
① optical axis, sender
② optical axis, receiver
③ LED indicator yellow: Status of received light beam
④ LED indicator green: Supply voltage active
⑤ Teach-in button
⑥ Threaded mounting hole M3
⑦ Connection

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/1058268

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SICK AT A GLANCE

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SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

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