WTB4-3P2292

MultiLine

MULTITASK PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

WTB4-3P2292 | MultiLine

MULTITASK PHOTOELECTRIC SENSORS

Ordering information

Type	Part no.
WTB4-3P2292	1062850

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

Illustration may differ

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/dark switching
Output current $I_{max.}$	≤ 100 mA
Response time	< 1.2 ms [4]
Switching frequency	400 Hz [5]
Connection type	Male connector M8, 4-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.

Safety-related parameters

$MTTF_D$	744 years
DC_{avg}	0 %

Classifications

eCl@ss 5.0	27270904
eCl@ss 5.1.4	27270904
eCl@ss 6.0	27270904
eCl@ss 6.2	27270904
eCl@ss 7.0	27270904
eCl@ss 8.0	27270904
eCl@ss 8.1	27270904

eCl@ss 9.0	27270904
eCl@ss 10.0	27270904
eCl@ss 11.0	27270904
eCl@ss 12.0	27270903
ETIM 5.0	EC002719
ETIM 6.0	EC002719
ETIM 7.0	EC002719
ETIM 8.0	EC002719
UNSPSC 16.0901	39121528

Connection type
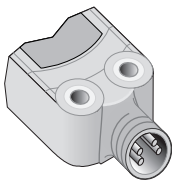
Connection diagram

Cd-084

BN	1	+ (L+)
WH	2	$\overline{Q}$
BU	3	- (M)
BK	4	Q
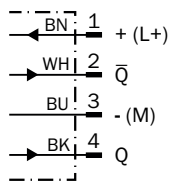
Characteristic curve

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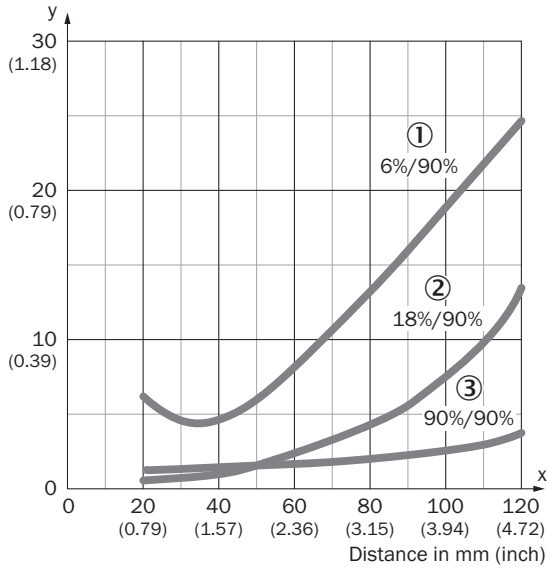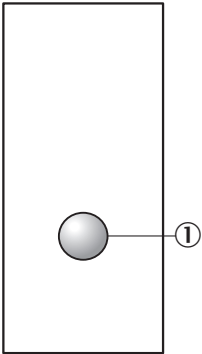

① Black object, 6% remission factor
② Gray object, 18% remission factor
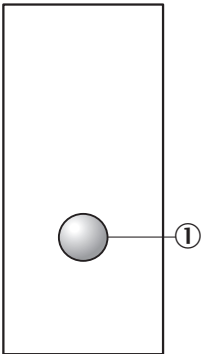③ White object, 90% remission factor
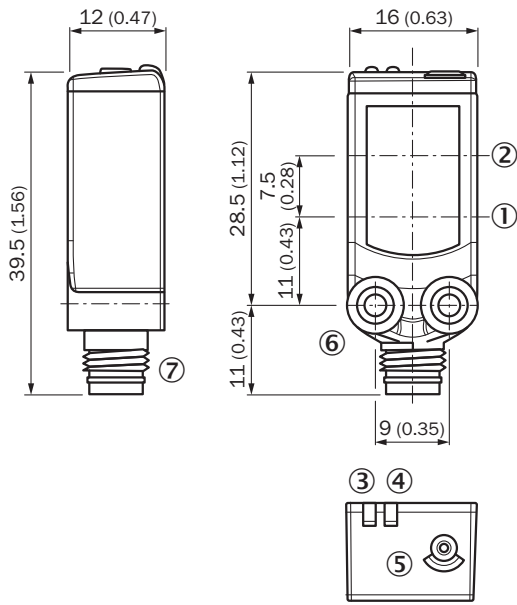
Light spot size
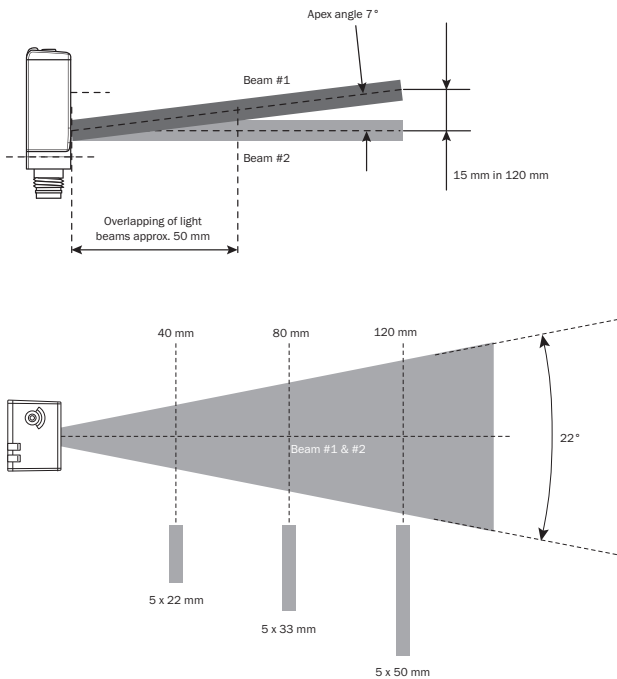
Adjustments

① Teach-in button

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

Recommended accessories

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

Brief description	Type	Part no.
Plug connectors and cables		
Head A: female connector, M8, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF8U14-050VA3XLEAX	2095889
Head A: male connector, M8, 4-pin, straight Cable: unshielded	STE-0804-G	6037323

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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