WTB4-3P3061S20

MultiPulse

MULTITASK PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

WTB4-3P3061S20 | MultiPulse

MULTITASK PHOTOELECTRIC SENSORS

Ordering information

Type	Part no.
WTB4-3P3061S20	1029881

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

Illustration may differ

Detailed technical data

Features

Sensor/ detection principle	Photoelectric proximity sensor, 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.	4 mm ... 150 mm [1]
Sensing range	15 mm ... 150 mm [1]
Type of light	Visible red light
Light source	PinPoint LED [2]
Light spot size (distance)	Ø 7 mm (50 mm)
Wave length	650 nm
Adjustment	Potentiometer, 5 turns
Special applications	Detecting small objects
Special features	Sensor with self-monitoring

[1] Object with 90 % reflectance (referred to standard white, DIN 5033).
[2] Average service life: 100,000 h at T_U = +25 °C.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC [1]
Ripple	< 5 V_{pp} [2]

[1] Limit values.
[2] May not exceed or fall below U_v tolerances.
[3] Without load.
[4] Pulsed.
[5] Signal transit time with resistive load.
[6] With light/dark ratio 1:1.
[7] Do not bend below 0 °C.
[8] A = V_S connections reverse-polarity protected.
[9] C = interference suppression.
[10] D = outputs overcurrent and short-circuit protected.

Power consumption	20 mA [3]
Switching output	PNP [4]
Switching mode	Light switching [4]
Output current $I_{max.}$	≤ 100 mA
Response time	< 0.5 s [5]
Switching frequency	2 Hz [6]
Connection type	Cable with connector M8, 3-pin, 300 mm [7]
Cable material	PVC
Conductor cross-section	0.14 mm²
Cable diameter	Ø 3.4 mm
Circuit protection	A [8] C [9] D [10]
Protection class	III
Weight	30 g
Special device	✓
Housing material	Plastic, ABS
Optics material	Plastic, PMMA
Enclosure rating	IP67 IP66
Special feature	Line-shaped light spot, Oscillating output
Ambient operating temperature	−40 °C … +60 °C
Ambient storage temperature	−40 °C … +75 °C
UL File No.	NRKH.E181493 & NRKH7.E181493

[1] Limit values.

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[3] Without load.

[4] Pulsed.

[5] Signal transit time with resistive load.

[6] With light/dark ratio 1:1.

[7] Do not bend below 0 °C.

[8] A = V_S connections reverse-polarity protected.

[9] C = interference suppression.

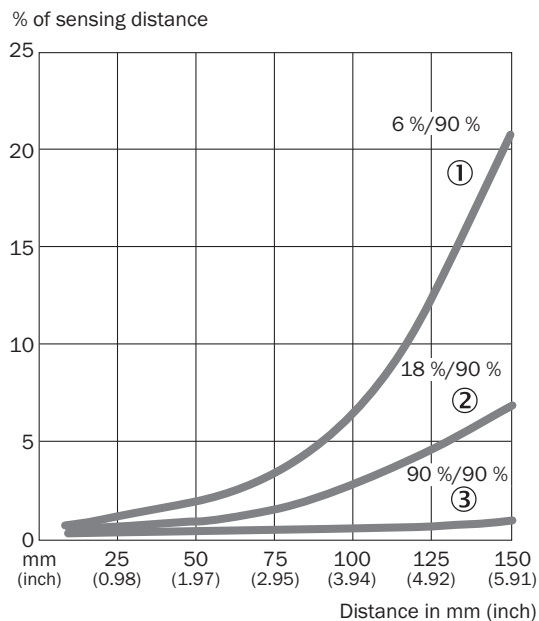[10] D = outputs overcurrent and short-circuit protected.

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

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ETIM 5.0	EC002719
ETIM 6.0	EC002719
UNSPSC 16.0901	39121528

Characteristic curve

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% of sensing distance

Distance in mm (inch)
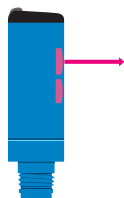
① Sensing range on black, 6% remission
② Sensing range on gray, 18 % remission
③ Sensing range on white, 90% remission

Functional principle

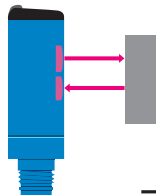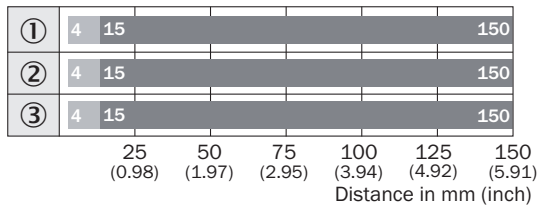No object

0 Hz

Object present

2 Hz / 10 Hz

Sensing range diagram
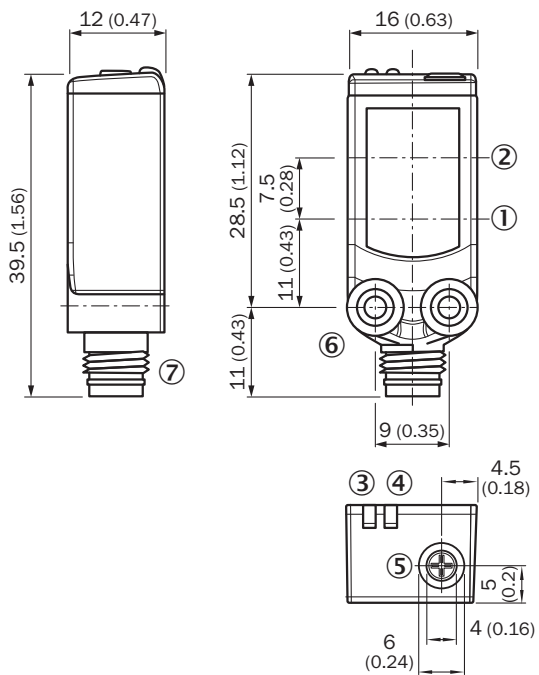
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①	4	15				150
②	4	15				150
③	4	15				150

| 25 (0.98) | 50 (1.97) | 75 (2.95) | 100 (3.94) | 125 (4.92) | 150 (5.91) |

Distance in mm (inch)

■ Sensing range max.   ■ Sensing range

① Sensing range on black, 6% remission
② Sensing range on gray, 18 % remission
③ Sensing range on white, 90% remission

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 Potentiometer
⑥ Threaded mounting hole M3
⑦ Connection

Recommended accessories

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

	Brief description	Type	Part no.
Mounting brackets and plates			
	Mounting bracket for floor mounting, Stainless steel 1.4571, mounting hardware included	BEF-W4-B	2051630
Plug connectors and cables			
	Head A: female connector, M8, 3-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF8U13-050VA1XLEAX	2095884
	Head A: male connector, M8, 3-pin, straight Head B: - Cable: unshielded	STE-0803-G	6037322

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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