



WT100-2P1432S02

W100-2

MINIATURE PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
WT100-2P1432S02	6060469

Other models and accessories → www.sick.com/W100-2

Detailed technical data

Features

Sensor/ detection principle	Photoelectric proximity sensor, Energetic
Dimensions (W x H x D)	11 mm x 31 mm x 20 mm
Housing design (light emission)	Rectangular
Sensing range max.	0 mm ... 1,200 mm ¹⁾
Sensing range	0 mm ... 750 mm ¹⁾
Type of light	Visible red light
Light source	LED ²⁾
Light spot size (distance)	Ø 75 mm (1,000 mm)
Wave length	632 nm
Adjustment	Potentiometer (Sensing range)

¹⁾ Object with 90 % reflectance (referred to standard white, DIN 5033).

²⁾ Average service life: 100,000 h at T_J = +25 °C.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC ¹⁾
Ripple	± 10 % ²⁾
Current consumption	30 mA ³⁾
Switching output	PNP

¹⁾ Limit values.

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⁾ B = output reverse-polarity protected.

⁹⁾ D = outputs overcurrent and short-circuit protected.

¹⁰⁾ Temperature stability following adjustment +/-10 °C.

Signal voltage PNP HIGH/LOW	$U_V - 1,8 \text{ V} / \text{ca. } 0 \text{ V}$
Output current I_{max}	$\leq 100 \text{ mA}$
Response time	$\leq 0,5 \text{ ms}^4)$
Switching frequency	$1,000 \text{ Hz}^5)$
Connection type	Cable with Stocko-connector (MKF-13264), 300 mm ⁶⁾
Cable material	PUR
Conductor cross-section	$0,18 \text{ mm}^2$
Circuit protection	A ⁷⁾ B ⁸⁾ D ⁹⁾
Protection class	III
Housing material	Plastic, ABS/PC/POM
Optics material	Plastic, PMMA
Enclosure rating	IP67
Ambient operating temperature	$-30 \text{ }^\circ\text{C} \dots +55 \text{ }^\circ\text{C}^{10)}$
Ambient temperature, storage	$-40 \text{ }^\circ\text{C} \dots +70 \text{ }^\circ\text{C}$

- 1) Limit values.
- 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 $0 \text{ }^\circ\text{C}$.
- 7) A = V_S connections reverse-polarity protected.
- 8) B = output reverse-polarity protected.
- 9) D = outputs overcurrent and short-circuit protected.
- 10) Temperature stability following adjustment $\pm 10 \text{ }^\circ\text{C}$.

Safety-related parameters

MTTF_D	954 years
DC_{avg}	0 %

Classifications

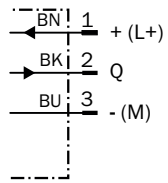
ECI@ss 5.0	27270903
ECI@ss 5.1.4	27270903
ECI@ss 6.0	27270903
ECI@ss 6.2	27270903
ECI@ss 7.0	27270903
ECI@ss 8.0	27270903
ECI@ss 8.1	27270903
ECI@ss 9.0	27270903
ECI@ss 10.0	27270904
ECI@ss 11.0	27270904
ETIM 5.0	EC001821
ETIM 6.0	EC001821
ETIM 7.0	EC002719

UNSPSC 16.0901

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Connection diagram

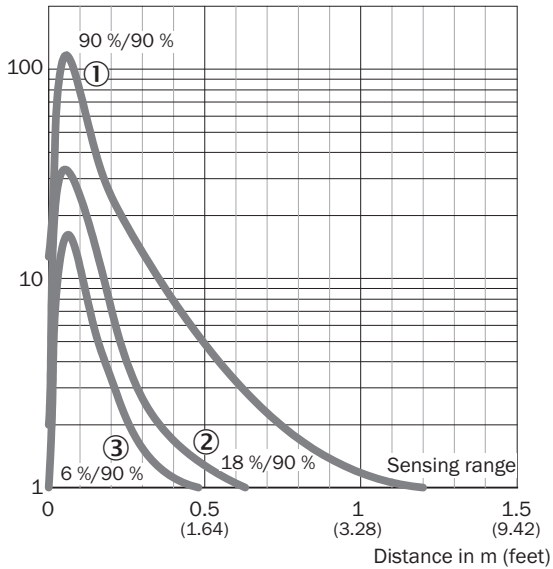
Cd-240



Characteristic curve

WT100-2, energetic

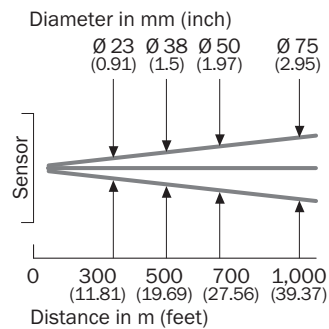
Function reserve



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

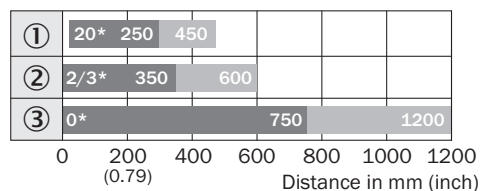
Light spot size

Light spot size



Sensing range diagram

WT100-2, energetic

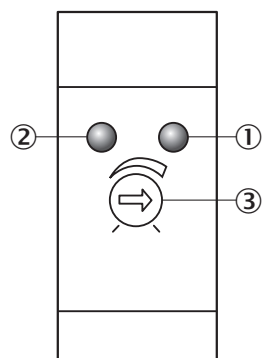


■ Sensing range ■ Sensing range max.

*Close-up range at maximum sensitivity

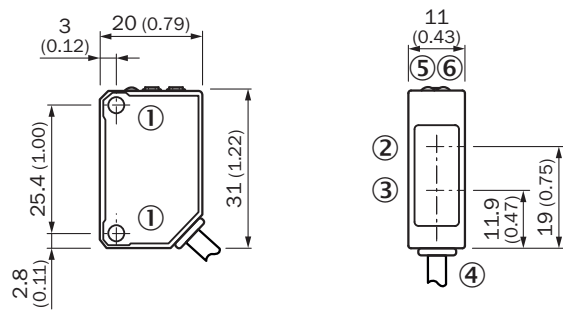
- ① Sensing range on black, 6% remission
- ② Sensing range on gray, 18 % remission
- ③ Sensing range on white, 90% remission

Adjustments



- ① LED indicator orange: switching output active
- ② LED indicator green: power on
- ③ Sensing range adjustment: potentiometer



Dimensional drawing (Dimensions in mm (inch))



- ① Threaded mounting hole M3
- ② Center of optical axis, receiver
- ③ Center of optical axis, sender
- ④ Connection
- ⑤ LED indicator orange: switching output active
- ⑥ LED indicator green: power on

Recommended accessories

Other models and accessories → www.sick.com/W100-2

	Brief description	Type	Part no.
Mounting brackets and plates			
	Mounting bracket for wall mounting, stainless steel, mounting hardware included	BEF-W100-A	5311520
	Mounting bracket for floor mounting, steel, zinc coated, mounting hardware included	BEF-W100-B	5311521

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