



WT100-2P1412S01

W100-2

PHOTOELECTRIC SENSORS





Ordering information

Туре	part no.
WT100-2P1412S01	6052402

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

Illustration may differ



Detailed technical data

Features

Functional principle	Photoelectric proximity sensor
Functional principle detail	Background blanking
Dimensions (W x H x D)	11 mm x 31 mm x 20 mm
Housing design (light emission)	Rectangular
Sensing range max.	10 mm 170 mm ¹⁾
Sensing range	10 mm 150 mm ¹⁾
Type of light	Visible red light
Light source	LED ²⁾
Light spot size (distance)	Ø 8 mm (90 mm)
Wave length	632 nm
Adjustment	None

 $^{^{1)}}$ Object with 90% remission (based on standard white, DIN 5033).

 $^{^{2)}}$ Average service life: 100,000 h at $\rm T_U$ = +25 °C.

Mechanics/electronics

Supply voltage \mathbf{U}_{B}	10 V DC 30 V DC ¹⁾
Ripple	± 10 % ²⁾
Current consumption	30 mA ³⁾
Switching output	PNP
Switching mode	Dark switching
Signal voltage PNP HIGH/LOW	$U_V - 1.8 \text{ V} / \text{ ca. 0 V}$
Output current I _{max.}	≤ 100 mA
Response time	\leq 0.5 ms $^{4)}$
Switching frequency	1,000 Hz ⁵⁾
Connection type	Cable with Stocko-connector, 260 mm ⁶⁾
Cable material	Plastic, PVC
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	-25 °C +55 °C
Ambient temperature, storage	-40 °C +70 °C

¹⁾ Limit values.

Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
cRUus certificate	✓
Photobiological safety (DIN EN 62471) certificate	✓

Classifications

ECLASS 5.0	27270903
ECLASS 5.1.4	27270903
ECLASS 6.0	27270903

 $^{^{2)}}$ May not fall below or exceed 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.

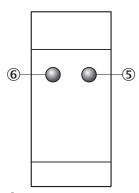
⁹⁾ D = outputs overcurrent and short-circuit protected.

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ECLASS 6.2	27270903
ECLASS 7.0	27270903
ECLASS 8.0	27270903
ECLASS 8.1	27270903
ECLASS 9.0	27270903
ECLASS 10.0	27270904
ECLASS 11.0	27270904
ECLASS 12.0	27270903
ETIM 5.0	EC001821
ETIM 6.0	EC001821
ETIM 7.0	EC002719
ETIM 8.0	EC002719
UNSPSC 16.0901	39121528

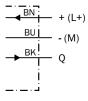
Adjustments



⑤ LED indicator orange: output active

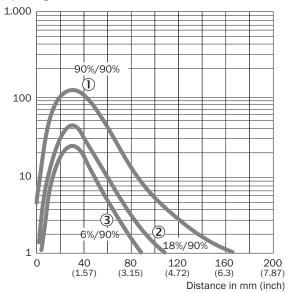
© LED indicator green: stability indicator

Connection diagram Cd-043



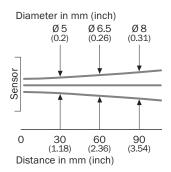
Characteristic curve

Operating reserve

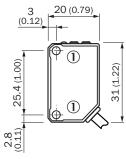


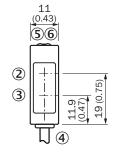
- ① Sensing range on white, 90% remission factor
- ② Sensing range on gray, 18% remission factor
- 3 Sensing range on black, 6% remission factor

Light spot size



Dimensional drawing





Dimensions in mm (inch)

① Threaded mounting hole M3

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- ② Center of optical axis, receiver
- 3 Center of optical axis, sender
- 4 Connection
- ⑤ LED indicator orange: switching output active
- ® LED indicator green: power on

Recommended accessories

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

	Brief description	Туре	part no.	
Mounting systems				
0, "	 Description: Mounting bracket for wall mounting Material: Stainless steel Details: Stainless steel Items supplied: Mounting hardware included Suitable for: W8, W8G, W8 Laser, W8 Inox, G6, G6 Inox, W100 Laser, W100-2, KTM Core, KTM Prime, CSM, LUTM, W4S 	BEF-W100-A	5311520	
	 Description: Mounting bracket for floor mounting Material: Steel Details: Steel, zinc coated Items supplied: Mounting hardware included Suitable for: W8, W8G, W8 Laser, W8 Inox, G6, G6 Inox, W100 Laser, W100-2, KTM Core, KTM Prime, CSM, LUTM 	BEF-W100-B	5311521	

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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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