



WS/WE100-2P0439S03 W100-2

PHOTOELECTRIC SENSORS





Ordering information

Туре	part no.
WS/WE100-2P0439S03	6066123

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

Illustration may differ



Detailed technical data

Features

Functional principle	Through-beam photoelectric sensor
Dimensions (W x H x D)	11 mm x 31 mm x 20 mm
Housing design (light emission)	Rectangular
Sensing range max.	0 m 33 m
Sensing range	0 m 20 m
Type of light	Visible red light
Light source	LED ¹⁾
Light spot size (distance)	Ø 850 mm (12 m)
Wave length	632 nm
Adjustment	Potentiometer, 270° (Sensitivity)

 $^{^{1)}}$ Average service life: 100,000 h at TU = +25 °C.

Mechanics/electronics

Supply voltage \mathbf{U}_{B}	10 V DC 30 V DC ¹⁾
Ripple	± 10 % ²⁾
Power consumption, sender	\leq 15 mA $^{3)}$

¹⁾ Limit values.

 $^{^{2)}\,\}mathrm{May}$ 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 $^{\circ}\text{C}.$

 $^{^{7)}}$ A = V_S connections reverse-polarity protected.

 $^{^{8)}}$ B = output reverse-polarity protected.

 $^{^{9)}}$ D = outputs overcurrent and short-circuit protected.

B	2)
Power consumption, receiver	≤ 20 mA ³⁾
Switching output	PNP
Switching mode	Light/dark switching
Switching mode selector	Selectable via light/dark rotary switch
Signal voltage NPN HIGH/LOW	Approx. V_S / < 1.8 V
Output current I _{max.}	≤ 100 mA
Response time	\leq 0.5 ms $^{4)}$
Switching frequency	1,000 Hz ⁵⁾
Connection type	Cable, 3-wire, 300 mm ⁶⁾
Cable material	Plastic, PVC
Conductor cross section	0.18 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
Items supplied	2 Stainless steel mounting brackets (1.4301/304) BEF-W100-A
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	✓
Photobiological safety (DIN EN 62471) certificate	✓

Classifications

ECLASS 5.0	27270901
ECLASS 5.1.4	27270901
ECLASS 6.0	27270901
ECLASS 6.2	27270901

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 $^{^{7)}}$ A = V_S connections reverse-polarity protected.

 $^{^{8)}}$ B = output reverse-polarity protected.

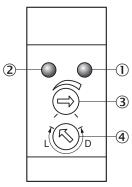
 $^{^{9)}}$ D = outputs overcurrent and short-circuit protected.

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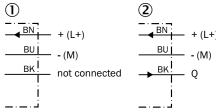
ECLASS 7.0	27270901
ECLASS 8.0	27270901
ECLASS 8.1	27270901
ECLASS 9.0	27270901
ECLASS 10.0	27270901
ECLASS 11.0	27270901
ECLASS 12.0	27270901
ETIM 5.0	EC002716
ETIM 6.0	EC002716
ETIM 7.0	EC002716
ETIM 8.0	EC002716
UNSPSC 16.0901	39121528

Adjustments W100-2



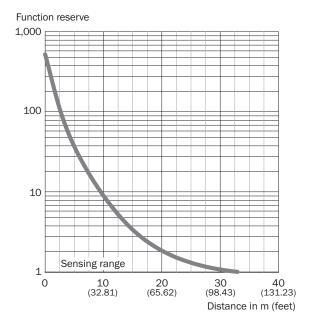
- ① LED indicator orange: switching output active
- ② LED indicator green: power on
- 3 Sensing range adjustment: potentiometer
- 4 Light/ dark rotary switch: L = light switching, D = dark switching

Connection diagram Cd-049

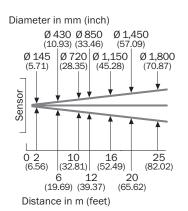


- 1 sender
- 2 receiver

Characteristic curve WS/WE100-2



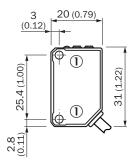
Light spot size

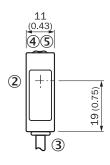


Sensing range diagram WS/WE100-2



Dimensional drawing





Dimensions in mm (inch)

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

Recommended accessories

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

	Brief description	Туре	part no.	
Mounting sys	Mounting systems			
0, 1	 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	
	 Description: Plate N11N for universal clamp bracket Material: Stainless steel Details: Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp) Items supplied: Universal clamp (5322627), mounting hardware Usable for: DeltaPac, Glare, WTD20E 	BEF-KHS-N11N	2071081	

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	Brief description	Туре	part no.
connectors a	nd cables		
	 Connection type head A: Male connector, M8, 3-pin, straight, A-coded Description: Unshielded Connection systems: Screw-type terminals Permitted cross-section: 0.14 mm² 0.5 mm² 	STE-0803-G	6037322

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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.

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For us, that is "Sensor Intelligence."

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