



WL100-2P3439

W100-2

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
WL100-2P3439	6052361

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

Detailed technical data

Features

Sensor/detection principle	Photoelectric retro-reflective sensor
Dimensions (W x H x D)	11 mm x 31 mm x 20 mm
Housing design (light emission)	Rectangular
Sensing range max.	0.01 m ... 7.2 m ¹⁾
Sensing range	0.01 m ... 5.5 m ¹⁾
Type of light	Visible red light
Light source	LED ²⁾
Light spot size (distance)	Ø 280 mm (4 m)
Wave length	632 nm
Adjustment	Potentiometer

¹⁾ PL80A.

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

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC ¹⁾
Ripple	± 10 % ²⁾
Power consumption	≤ 30 mA ³⁾
Output type	PNP
Switching mode	Light/dark switching

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⁾ A = V_S connections reverse-polarity protected.

⁷⁾ B = output reverse-polarity protected.

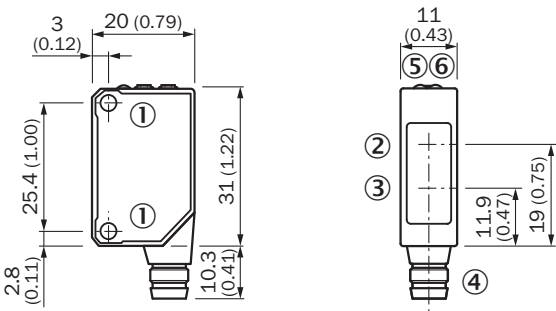
⁸⁾ D = outputs overcurrent and short-circuit protected.

Switching mode selector	Selectable via light/dark rotary switch
Signal voltage PNP HIGH/LOW	U _V - 1,8 V / ca. 0 V
Output current I _{max.}	100 mA
Response time	≤ 0.5 ms ⁴⁾
Switching frequency	1,000 Hz ⁵⁾
Connection type	Connector M8, 3-pin
Circuit protection	A ⁶⁾ B ⁷⁾ D ⁸⁾
Protection class	III
Polarisation filter	✓
Housing material	ABS/PC/POMplastic
Optics material	PMMA
Enclosure rating	IP 67
Items supplied	Mounting bracket BEF-W100-A, Reflector P250
Ambient operating temperature	-25 °C ... +55 °C
Ambient storage temperature	-40 °C ... +70 °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) A = V_S connections reverse-polarity protected.
- 7) B = output reverse-polarity protected.
- 8) D = outputs overcurrent and short-circuit protected.

Dimensional drawing (Dimensions in mm (inch))

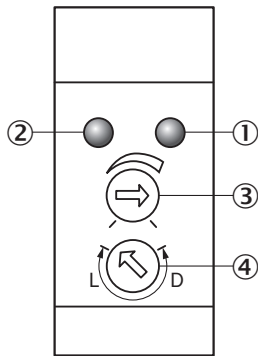
WT100, WL100



- 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

Adjustments possible

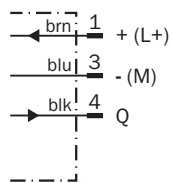
W100-2



- 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

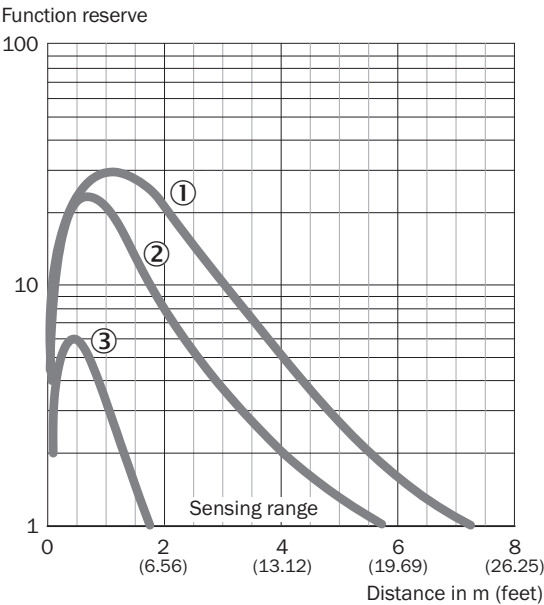
Connection diagram

Cd-045



Characteristic curve

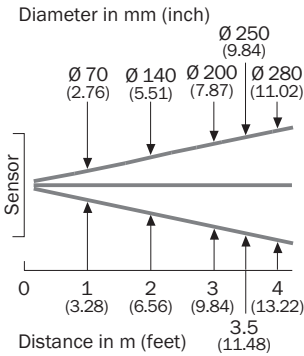
WL100-2



- ① PL80A
- ② P250
- ③ Reflective tape Diamond Grade (100 mm x 100 mm/3.94 inch x 3.94 inch)

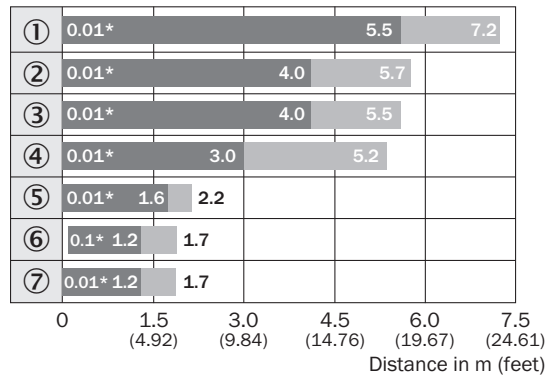
Light spot size

WL100-2



Sensing range diagram

WL100-2



■ Sensing range ■ Sensing range max.

*Close-up range at maximum sensitivity

- ① PL80A
- ② P250
- ③ PL50A, PL40A
- ④ PL30A, PL31A
- ⑤ PL20A
- ⑥ Reflective tape Diamond Grade
- ⑦ P45

Recommended accessories

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

	Brief description	Type	Part no.
Universal bar clamp systems			
	Plate L for universal clamp bracket, steel, zinc coated, universal clamp and mounting hardware included	BEF-KHS-L01	2023057
Plug connectors and cables			
	Head A: female connector, M8, 3-pin, straight Head B: Cable Cable: PVC, unshielded, 2 m	DOL-0803-G02M	6010785
	Head A: female connector, M8, 3-pin, straight Head B: Cable Cable: drag chain use, PUR, halogen-free, unshielded, 2 m	DOL-0803-G02MC	6025888
	Head A: female connector, M8, 3-pin, straight Head B: Cable Cable: drag chain use, PUR, halogen-free, unshielded, 3 m	DOL-0803-G03MC	6038991
	Head A: female connector, M8, 3-pin, straight Head B: Cable Cable: PVC, unshielded, 5 m	DOL-0803-G05M	6022009

	Brief description	Type	Part no.
	Head A: female connector, M8, 3-pin, straight Head B: Cable Cable: drag chain use, PUR, halogen-free, unshielded, 5 m	DOL-0803-G05MC	6025889
	Head A: female connector, M8, 3-pin, straight Head B: Cable Cable: drag chain use, PUR, halogen-free, unshielded, 10 m	DOL-0803-G10MC	6025890
	Head A: female connector, M8, 3-pin, angled Head B: Cable Cable: PVC, unshielded, 2 m	DOL-0803-W02M	6008489
	Head A: female connector, M8, 3-pin, angled Head B: Cable Cable: drag chain use, PUR, halogen-free, unshielded, 2 m	DOL-0803-W02MC	6025891
	Head A: female connector, M8, 3-pin, angled Head B: Cable Cable: PVC, unshielded, 5 m	DOL-0803-W05M	6022010
	Head A: female connector, M8, 3-pin, angled Head B: Cable Cable: drag chain use, PUR, halogen-free, unshielded, 5 m	DOL-0803-W05MC	6025892
	Head A: female connector, M8, 3-pin, straight Head B: - Cable: unshielded	DOS-0803-G	7902077
	Head A: female connector, M8, 3-pin, angled Head B: - Cable: unshielded	DOS-0803-W	7902078
Reflectors			
	Rectangular, screw connection, 47 mm x 47 mm, PMMA/ABS, Screw-on, 2 hole mounting	P250	5304812
	Rectangular, screw connection, 38 mm x 15 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL20A	1012719
	Rectangular, screw connection, 56 mm x 28 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL30A	1002314
	Rectangular, screw connection, 37 mm x 56 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL40A	1012720
	Rectangular, screw connection, 80 mm x 80 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL80A	1003865
	Fine triple, screw connection, suitable for laser sensors, 47 mm x 47 mm, PMMA/ABS, Screw-on, 2 hole mounting	P250F	5308843
	Fine triple, screw connection, suitable for laser sensors, 18 mm x 18 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL10F	5311210
	Fine triple, screw connection, suitable for laser sensors, 38 mm x 16 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL20F	5308844

	Brief description	Type	Part no.
	Self-adhesive	REF-IRF-56	5314244
	Round, plugable for metal plates, PMMA/ABS, Plug-in for sheets	PL22-3	1004488

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