



WL100-P3230

W100

PRODUCT PORTFOLIO

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
WL100-P3230	6026059

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

Detailed technical data

Features

Sensor/detection principle	Photoelectric retro-reflective sensor, Standard optics
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 ... 6 m ¹⁾
Sensing range	0.01 m ... 5 m ¹⁾
Type of light	Visible red light
Light source	LED ²⁾
Angle of dispersion	Approx. 4°
Light spot size (distance)	Ø 250 mm, 3.5 m
Wave length	680 nm

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, open collector
Switching mode	Dark switching

¹⁾ Limit values when operated in short-circuit protected network: max. 8 A.

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 = inputs and output reverse-polarity protected.

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

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	Connector M8, 3-pin
Circuit protection	A ⁶⁾ B ⁷⁾ D ⁸⁾
Weight	9 g
Polarisation filter	✓
Housing material	ABS/PCplastic
Optics material	PMMA
Enclosure rating	IP 65
Ambient operating temperature	$-25 \text{ °C} \dots +55 \text{ °C}$
Ambient storage temperature	$-40 \text{ °C} \dots +70 \text{ °C}$

1) Limit values when operated in short-circuit protected network: max. 8 A.

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.

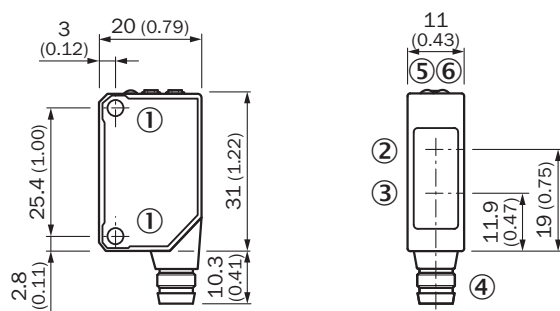
6) A = V_S connections reverse-polarity protected.

7) B = inputs and output reverse-polarity protected.

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

Dimensional drawing (Dimensions in mm (inch))

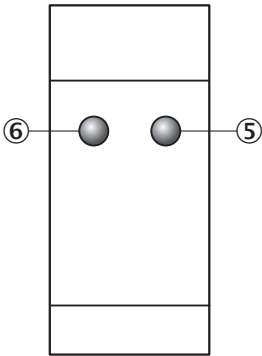
WT100, WL100



- 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

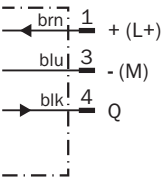
WL100, WS/WE100, no adjustment



- ⑤ Orange LED indicator : switching output active
- ⑥ LED indicator green: stability indicator

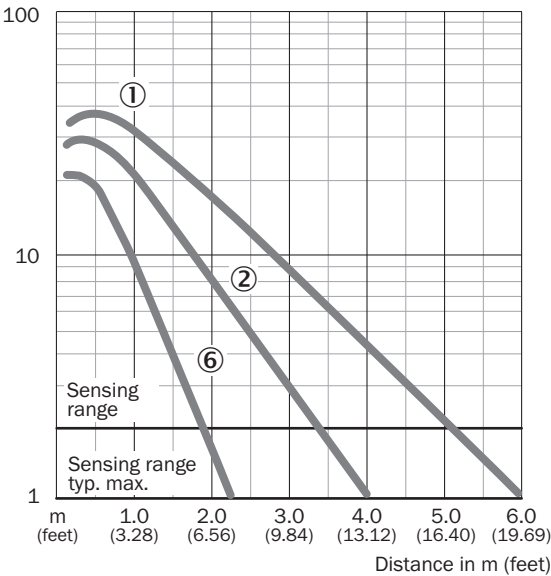
Connection diagram

Cd-045



Characteristic curve

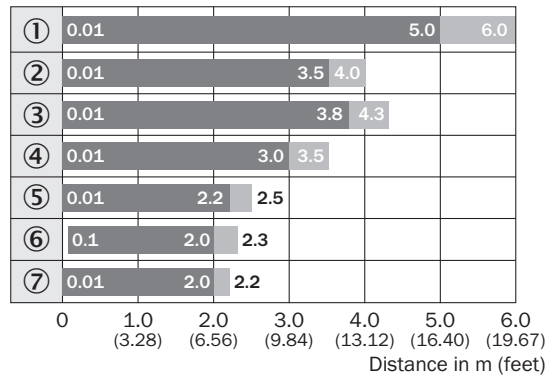
WL100, 6 m



- ① PL80A
- ② P250
- ⑥ Reflective tape Diamond Grade

Sensing range diagram

WL100, 6 m



■ Sensing range ■ Sensing range max.

- 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

	Brief description	Type	Part no.
Universal bar clamp systems			
	Plate N08 for universal clamp bracket, Zinc plated steel (sheet), Diecast zinc (clamp), Universal clamp (5322626), mounting hardware	BEF-KHS-N08	2051607
Device protection (mechanical)			
	Safety bracket for floor mounting, Stainless steel 1.4571, mounting hardware included	BEF-SW-W4S	2051497
Mounting brackets and mounting 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
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: PVC, unshielded, 5 m	DOL-0803-G05M	6022009

	Brief description	Type	Part no.
	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: PVC, unshielded, 5 m	DOL-0803-W05M	6022010
	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
	Head A: male connector, M8, 3-pin, straight Head B: - Cable: unshielded	STE-0803-G	6037322
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
	Self-adhesive	REF-IRF-56	5314244
	Round, plugable for metal plates, PMMA/ABS, Plug-in for sheets	PL22-3	1004488

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