



W100

Miniature photoelectric sensor family for standard applications in logistics and packaging

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Technical data overview

Dimensions (W x H x D)	11 mm x 31 mm x 20 mm
Light source	LED
Type of light	Visible red light / Infrared light (depending on type)
Enclosure rating	IP65 / IP67 (depending on type)
Housing material	Plastic
Adjustment	Potentiometer / none (depending on type)



Product description

The W100 is a photoelectric sensor family enclosed in a miniature housing made for standard applications in the logistics and packaging industries. The compact housing design, with M3 threaded mounting holes, allows for quick and simple mounting. The W100 is available either with a standard emitter LED or with a bright light LED. The W100 is therefore an all-purpose, economical option – particularly for handling and warehousing systems.

At a glance

- Standard miniature housing with M3 threaded mounting holes
- Optics with standard red LED or bright light LED
- Connector and cable versions
- Light/dark switching and sensitivity adjustment via rotary switch possible
- Various versions are available, including through-beam, retro-reflective, energetic and background suppression
- Wide variety of accessories available

Your benefits

- Highly visible light spot simplifies alignment
- Reliable detection of glossy objects at a close range with WL100 bright light models
- Less contamination due to high optical operating reserve
- M3 threaded mounting holes provide quick and easy installation

Ordering information

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

- **Functional principle:** Photoelectric proximity sensor
- **Functional principle detail:** Background blanking
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light/dark switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
4 mm ... 140 mm	NPN	Potentiometer	Cable, 3-wire, 2 m ¹⁾	WT100-N1412	6026109
				WT100-N1419	6026113
				WT100-N1419S03	6039625
			Connector M8, 3-pin	WT100-N3410	6026111
				WT100-N3419	6026115
			Male connector M8, 4-pin	WT100-N4410	6028616
				WT100-N4419	6028618
	PNP	Potentiometer	Cable, 3-wire, 2 m ¹⁾	WT100-P1412	6026110
				WT100-P1419	6026114
			Connector M8, 3-pin	WT100-P3410	6026112
				WT100-P3419	6026116
			Male connector M8, 4-pin	WT100-P4410	6028617
				WT100-P4419	6028619

¹⁾ Do not bend below 0 °C.

- **Functional principle:** Photoelectric proximity sensor
- **Functional principle detail:** Energetic
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light/dark switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0 mm ... 1,000 mm	NPN	Potentiometer	Cable with M12 male connector, 4-pin, 850 mm	WT100-P1400S05	6044335
			Cable, 3-wire, 2 m ¹⁾	WT100-N1402	6037850
				WT100-N1409	6036501
			Connector M8, 3-pin	WT100-N3400	6037851
				WT100-N3409	6036502
			Male connector M8, 4-pin	WT100-N4400	6037852
				WT100-N4409	6036503
	PNP	Potentiometer	Cable with M12 male connector, 4-pin, 290 mm ¹⁾	WT100-P1402S04	6041386
			Cable with M8 male connector, 4-pin, 300 mm ¹⁾	WT100-P0409S45	6044588
			Cable with connector M8, 3-pin, 200 mm ¹⁾	WT100-P0402S48	6045042
			Cable, 3-wire, 2 m ¹⁾	WT100-P1402	6037853
				WT100-P1409	6036504
			Connector M8, 3-pin	WT100-P3400	6037854
				WT100-P3409	6036505
			Male connector M8, 4-pin	WT100-P4400	6037855
				WT100-P4409	6036506
			Cable, 3-wire, 2 m ¹⁾	WT100-N1432	6026074
				WT100-N1439	6026078
			Connector M8, 3-pin	WT100-N3430	6026076
				WT100-N3439	6026080
0 mm ... 900 mm	NPN	Potentiometer	Male connector M8, 4-pin	WT100-N4430	6028612
				WT100-N4439	6028614
			Cable, 3-wire, 2 m ¹⁾	WT100-P1432	6026075
				WT100-P1439	6026079
			Connector M8, 3-pin	WT100-P3430	6026077
				WT100-P3439	6026081
	PNP	Potentiometer	Cable with M8 male connector, 4-pin, 200 mm ¹⁾	WT100-P0412S06	6049447
			Male connector M8, 4-pin	WT100-P4430	6028613
				WT100-P4439	6028615

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- **Functional principle:** Photoelectric proximity sensor
- **Functional principle detail:** Background blanking
- **Light source:** LED
- **Voltage type:** DC
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
4 mm ... 240 mm	PNP	None	Cable with Stocko-connector, 260 mm ¹⁾	WT100-P1412S01	6027642

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- **Functional principle:** Photoelectric proximity sensor
- **Functional principle detail:** Energetic
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Dark switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0 mm ... 900 mm	PNP	Potentiometer	Cable with M12 male connector, 4-pin, 290 mm ¹⁾	WT100-P0432S46	6044601
			Cable with Stocko-connector, 260 mm ¹⁾	WT100-P1432S02	6033003

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- **Functional principle:** Photoelectric retro-reflective sensor
- **Functional principle detail:** Dual lens
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light/dark switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0.01 m ... 3 m	NPN	Potentiometer	Cable, 3-wire, 2 m ¹⁾	WL100-N1422	6027657
				WL100-N1429	6027661
			Cable, 3-wire, 3 m ¹⁾	WL100-N1422S03	6027665
			Connector M8, 3-pin	WL100-N3420	6027659
				WL100-N3429	6027663
			Male connector M8, 4-pin	WL100-N4420	6028608
				WL100-N4429	6028610
	PNP	Potentiometer	Cable, 3-wire, 2 m ¹⁾	WL100-P1422	6027658
		Potentiometer	Cable, 3-wire, 2 m ¹⁾	WL100-P1429	6027662
			Connector M8, 3-pin	WL100-P3420	6027660
				WL100-P3429	6027664
		Male connector M8, 4-pin		WL100-P4420	6028609
				WL100-P4429	6028611
				WL100-P4429S11	6030173
0.01 m ... 6 m	NPN	Potentiometer	Cable, 3-wire, 2 m ¹⁾	WL100-N1432	6026052
				WL100-N1432S06	6028932
				WL100-N1432S13	6030976
				WL100-N1439	6026064
				WL100-N1439S35	6039626

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Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
			Cable, 3-wire, 3 m ¹⁾	WL100-N1432S01	6027567
			Connector M8, 3-pin	WL100-N3430	6026058
				WL100-N3439	6026070
			Male connector M8, 4-pin	WL100-N4430	6028598
				WL100-N4439	6028604
	PNP	Potentiometer	Cable with M12 male connector, 4-pin, 310 mm ¹⁾	WL100-P1439S22	6035708
			Cable with M8 male connector, 4-pin, 200 mm ¹⁾	WL100-P1432S12	6030211
			Cable, 3-wire, 2 m ¹⁾	WL100-P1432	6026055
				WL100-P1432S29	6036884
				WL100-P1439	6026067
			Cable, 3-wire, 5 m ¹⁾	WL100-P1439S19	6034558
			Connector M8, 3-pin	WL100-P3430	6026061
				WL100-P3439	6026073
			Male connector M8, 4-pin	WL100-P4430	6028601
				WL100-P4430S18	6034196
				WL100-P4430S23	6035785
				WL100-P4430S36	6041292
				WL100-P4439	6028607
				WL100-P4439P04	1053298
				WL100-P1432S21	6035682
		None	Cable with M12 male connector, 4-pin, 290 mm ¹⁾		

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Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0.1 m ... 7.5 m	NPN	Potentiometer	Cable, 3-wire, 2 m ¹⁾	WL100-N1402	6037856
				WL100-N1409	6036507
			Connector M8, 3-pin	WL100-N3400	6037857
				WL100-N3409	6036508
			Male connector M8, 4-pin	WL100-N4400	6037858
				WL100-N4409	6036509
	PNP	Potentiometer	Cable with M12 male connector, 4-pin, 300 mm ¹⁾	WL100-P1409P07	1058101
				WL100-P1409S31	6037962
			Cable with M12 male connector, 4-pin, 850 mm ¹⁾	WL100-P1400S43	6044334
			Cable with M8 male connector, 4-pin, 300 mm ¹⁾	WL100-P1409S34	6038598
			Cable with connector M8, 3-pin, 200 mm ¹⁾	WL100-P1402S30	6037545
			Cable, 3-wire, 2 m ¹⁾	WL100-P1402	6037859
				WL100-P1409	6036510
			Connector M8, 3-pin	WL100-P3400	6037860
				WL100-P3409	6036511
			Male connector M8, 4-pin	WL100-P4400	6037861
				WL100-P4409	6036512

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- **Functional principle:** Photoelectric retro-reflective sensor
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light switching
- **Type of light:** visible red light

Switching output	Connection type	Type	Part no.
PNP	Cable, 2 m ¹⁾	WL100-P1332S37	6041844

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- **Functional principle:** Photoelectric retro-reflective sensor
- **Functional principle detail:** Dual lens
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Dark switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0.01 m ... 6 m	NPN	None	Cable with Excon-con- nector, 400 mm ¹⁾	WL100-N1232S01	6033652
			Cable with Excon-con- nector, 600 mm ¹⁾	WL100-N1232S02	6033653
			Cable, 3-wire, 2 m ¹⁾	WL100-N1232	6026050
				WL100-N1239	6026062
			Connector M8, 3-pin	WL100-N3230	6026056
				WL100-N3239	6026068
			Male connec- tor M8, 4-pin	WL100-N4230	6028596
				WL100-N4239	6028602
	PNP	None	Cable, 3-wire, 2 m ¹⁾	WL100-P1232	6026053
				WL100-P1239	6026065
			Cable, 3-wire, 3 m ¹⁾	WL100-P1232S16	6032950
				WL100-P3230	6026059
			Connector M8, 3-pin	WL100-P3239	6026071
				WL100-P3239S04	6027963
			Male connec- tor M8, 4-pin	WL100-P4230	6028599
				WL100-P4239	6028605

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- **Functional principle:** Photoelectric retro-reflective sensor
- **Functional principle detail:** Dual lens
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0.01 m ... 6 m	NPN	None	Cable with connector, JST, 3-pin, 1.3 m ¹⁾	WL100-N1339S40	1051942
			Cable, 3-wire, 2 m ¹⁾	WL100-N1332	6026051
				WL100-N1339	6026063
			Connector M8, 3-pin	WL100-N3330	6026057
				WL100-N3339	6026069
			Male connector M8, 4-pin	WL100-N4330	6028597
				WL100-N4339	6028603
	PNP	None	Cable with M12 male connector, 4-pin, 290 mm ¹⁾	WL100-P1332S17	6033616
			Cable with MOLEX-connector, 1.2 m ¹⁾	WL100-P1332S28	6036739
			Cable with connector M8, 3-pin, 200 mm ¹⁾	WL100-P1332S05	6028146
			Cable, 3-wire, 2 m ¹⁾	WL100-P1332	6026054
				WL100-P1339	6026066
			Cable, 3-wire, 3 m ¹⁾	WL100-P1332S07	6029017
			Cable, 3-wire, 5 m ¹⁾	WL100-P1332S08	6029097
			Connector M8, 3-pin	WL100-P3330	6026060
				WL100-P3339	6026072
			Cable with Stocko-connector (MKF-13264), 260 mm ¹⁾	WL100-P1332S02	6027643
			Cable with-Combicon-plug (QC0,5/3ST-3,81), 850 mm ¹⁾	WL100-P1332S15	6032795
			Male connector M8, 4-pin	WL100-P4330	6028600
				WL100-P4330S14	6032633
				WL100-P4339	6028606
0.1 m ... 7.5 m	PNP	None	Male connector M8, 4-pin	WL100-P4400S38	6042013

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- **Functional principle:** Photoelectric retro-reflective sensor
- **Functional principle detail:** Dual lens
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light/dark switching
- **Type of light:** Infrared light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0.1 m ... 7.5 m	PNP	Potentiometer	Male connector M8, 4-pin	WL100-P4409S41	6042523

- **Functional principle:** Through-beam photoelectric sensor
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light/dark switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0 m ... 15 m	NPN	Potentiometer	Cable, 3-wire, 2 m ¹⁾	WS/WE100-N1432	6026027
				WS/WE100-N1432S02	6028690
				WS/WE100-N1439	6026040
				WS/WE100-N1439S07	6039627
			Connector M8, 3-pin	WS/WE100-N3430	6026034
				WS/WE100-N3439	6026046
			Male connector M8, 4-pin	WS/WE100-N4430	6028586
				WS/WE100-N4439	6028592
	PNP	Potentiometer	Cable, 3-wire, 2 m ¹⁾	WS/WE100-P1432	6026030
				WS/WE100-P1439	6026043
				WS/WE100-P1439S08	6039628
			Connector M8, 3-pin	WS/WE100-P3430	6026037
				WS/WE100-P3439	6026049
			Male connector M8, 4-pin	WS/WE100-P4430	6028589
				WS/WE100-P4439	6028595

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Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0 m ... 30 m	NPN	Potentiometer	Cable with MOLEX-connector, 200 mm ¹⁾	WS/WE100-N1402S09	6039733
			Cable, 3-wire, 2 m ¹⁾	WS/WE100-N1402	6037862
				WS/WE100-N1409	6036513
			Connector M8, 3-pin	WS/WE100-N3400	6037863
				WS/WE100-N3409	6036514
			Male connector M8, 4-pin	WS/WE100-N4400	6037864
				WS/WE100-N4409	6036515
	PNP	Potentiometer	Cable with connector M8, 3-pin, 200 mm ¹⁾	WS/WE100-P1409S06	6038568
			Cable, 3-wire, 2 m ¹⁾	WS/WE100-P1402	6037865
				WS/WE100-P1409	6036516
			Connector M8, 3-pin	WS/WE100-P3400	6037866
				WS/WE100-P3409	6036517
			Male connector M8, 4-pin	WS/WE100-P4400	6037867
				WS/WE100-P4409	6036518

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- **Functional principle:** Through-beam photoelectric sensor
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Dark switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0 m ... 15 m	NPN	None	Cable, 3-wire, 2 m ¹⁾	WS/WE100-N1232	6026025
				WS/WE100-N1239	6026038
			Connector M8, 3-pin	WS/WE100-N3230	6026031
				WS/WE100-N3239	6026044
			Male connector M8, 4-pin	WS/WE100-N4230	6028584
				WS/WE100-N4239	6028590
	PNP	None	Cable, 3-wire, 2 m ¹⁾	WS/WE100-P1232	6026028
				WS/WE100-P1239	6026041
			Cable, 3-wire, 5 m ¹⁾	WS/WE100-P1239S01	6028497
				WS/WE100-P3230	6026035
			Connector M8, 3-pin	WS/WE100-P3239	6026047
				WS/WE100-P4230	6028587
			Male connector M8, 4-pin	WS/WE100-P4239	6028593
				WS/WE100-P4239	6028593

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- **Functional principle:** Through-beam photoelectric sensor
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0 m ... 15 m	NPN	None	Cable, 3-wire, 2 m ¹⁾	WS/WE100-N1332	6026026
				WS/WE100-N1339	6026039
			Connector M8, 3-pin	WS/WE100-N3330	6026033
				WS/WE100-N3339	6026045
			Male connector M8, 4-pin	WS/WE100-N4330	6028585
				WS/WE100-N4339	6028591
	PNP	None	Cable, 3-wire, 2 m ¹⁾	WS/WE100-P1332	6026029
				WS/WE100-P1339	6026042
			Connector M8, 3-pin	WS/WE100-P3330	6026036
				WS/WE100-P3339	6026048
			Male connector M8, 4-pin	WS/WE100-P4330	6028588
				WS/WE100-P4339	6028594

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- **Functional principle:** Through-beam photoelectric sensor
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light/dark switching
- **Type of light:** Infrared light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0 m ... 30 m	PNP	Potentiometer	Male connector M8, 4-pin	WS/WE100-P4409S10	6042521

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

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.

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.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com