



# WLR2100-D2312

ZoneControl

MULTITASK PHOTOELECTRIC SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ



## Ordering information

Type	Part no.
WLR2100-D2312	7027811

Other models and accessories → [www.sick.com/ZoneControl](http://www.sick.com/ZoneControl)

## Detailed technical data

### Features

<b>Functional principle</b>	Photoelectric retro-reflective sensor
<b>Logical principle of operation</b>	Single accumulation
<b>Type of Release</b>	Single release, block (slug) release
<b>Dimensions (W x H x D)</b>	45 mm x 73.7 mm x 48.6 mm
<b>Sensing range max.</b>	0 m ... 9 m
<b>Sensing range</b>	0 m ... 9 m <sup>1)</sup>
<b>Type of light</b>	Visible red light
<b>Light source</b>	LED <sup>2)</sup>
<b>Light spot size (distance)</b>	Ø 205 mm (9 m)
<b>Adjustment</b>	None
<b>Special applications</b>	ZoneControl

<sup>1)</sup> Reflector PL80A.

<sup>2)</sup> Average service life: 100,000 h at T<sub>J</sub> = +25 °C.

### Mechanics/electronics

<b>Supply voltage U<sub>B</sub></b>	18 V DC ... 30 V DC
<b>Ripple</b>	< 5 V <sub>pp</sub> <sup>1)</sup>
<b>Current consumption</b>	40 mA <sup>2)</sup>
<b>Switching output</b>	PNP
<b>Switching mode</b>	Light switching
<b>Response time</b>	1 ms

<sup>1)</sup> Of V<sub>S</sub>.

<sup>2)</sup> Without load and valve deenergized.

<sup>3)</sup> A = V<sub>S</sub> connections reverse-polarity protected.

<sup>4)</sup> C = interference suppression.

<sup>5)</sup> D = outputs overcurrent and short-circuit protected.

<b>Switching frequency</b>	500 Hz
<b>Connection type</b>	Cable with M12 male connector, 4-pin, 300 mm
<b>Connection type for daisy chain</b>	Cable with female connector, M12, 4-pin 2 m
<b>Circuit protection</b>	A <sup>3)</sup> C <sup>4)</sup> D <sup>5)</sup>
<b>Protection class</b>	II
<b>Housing material</b>	Plastic, ABS
<b>Enclosure rating</b>	IP67
<b>Shock and vibration resistance</b>	According to IEC 68
<b>Ambient operating temperature</b>	-25 °C ... +55 °C
<b>Ambient temperature, storage</b>	-40 °C ... +70 °C
<b>Connection type solenoid valve</b>	Cable, 2m, with 9.4 mm DIN valve connector

<sup>1)</sup> Of  $V_S$ .

<sup>2)</sup> Without load and valve deenergized.

<sup>3)</sup> A =  $V_S$  connections reverse-polarity protected.

<sup>4)</sup> C = interference suppression.

<sup>5)</sup> D = outputs overcurrent and short-circuit protected.

## Pneumatic

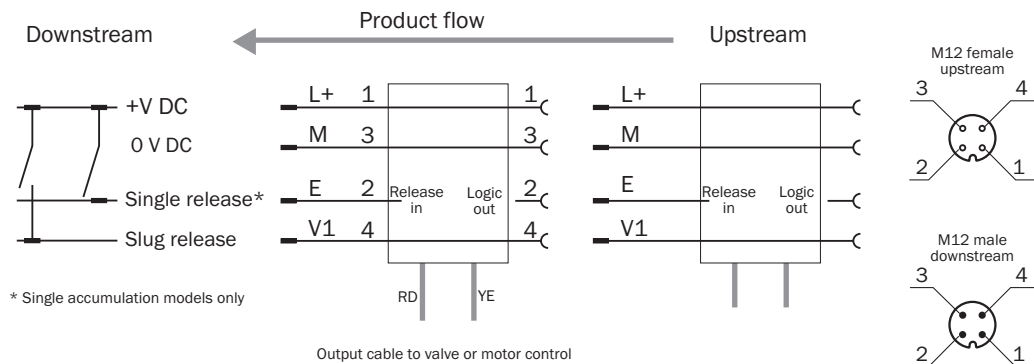
<b>Connection type solenoid valve</b>	Cable, 2m, with 9.4 mm DIN valve connector
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## Classifications

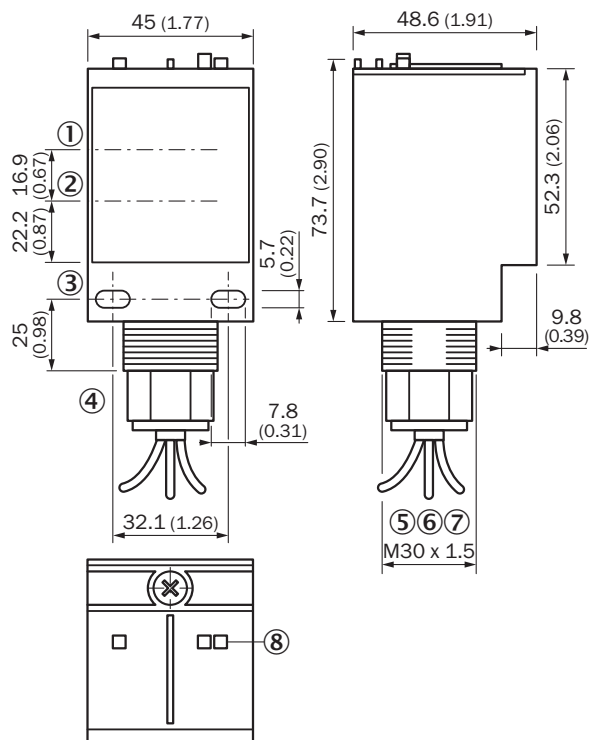
<b>ECLASS 5.0</b>	27270902
<b>ECLASS 5.1.4</b>	27270902
<b>ECLASS 6.0</b>	27270902
<b>ECLASS 6.2</b>	27270902
<b>ECLASS 7.0</b>	27270902
<b>ECLASS 8.0</b>	27270902
<b>ECLASS 8.1</b>	27270902
<b>ECLASS 9.0</b>	27270902
<b>ECLASS 10.0</b>	27270902
<b>ECLASS 11.0</b>	27270902
<b>ECLASS 12.0</b>	27270902
<b>ETIM 5.0</b>	EC002717
<b>ETIM 6.0</b>	EC002717
<b>ETIM 7.0</b>	EC002717
<b>ETIM 8.0</b>	EC002717
<b>UNSPSC 16.0901</b>	39121528

## Connection diagram

Cd-199









## Dimensional drawing (Dimensions in mm (inch))



- ① Sender
- ② Receiver
- ③ Fastening threads
- ④ Threaded mounting hole
- ⑤ Series connection, cable with female connector
- ⑥ Cable
- ⑦ Daisy chain connector, male
- ⑧ Status indicator: LED

## Recommended accessories

Other models and accessories → [www.sick.com/ZoneControl](http://www.sick.com/ZoneControl)

	Brief description	Type	Part no.
<b>Mounting brackets and plates</b>			
	Mounting bracket, steel, zinc coated, mounting hardware included	BEF-WK-WTR	2051786
	Universal mounting bracket for reflectors, steel, zinc coated	BEF-WN-REFX	2064574
	Mounting bracket, steel, zinc coated, mounting hardware included	BEF-WN-RT/IRT	2074621
<b>Reflectors</b>			
	Rectangular, screw connection, 51 mm x 61 mm, PMMA/ABS, Screw-on, 2 hole mounting	P250	5304812
<b>Others</b>			
	<ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Female connector, M12, 4-pin, straight, A-coded</li> <li>• <b>Connection type head B:</b> Flying leads</li> <li>• <b>Signal type:</b> Sensor/actuator cable</li> <li>• <b>Cable:</b> 5 m, 4-wire, PVC</li> <li>• <b>Description:</b> Sensor/actuator cable, unshielded</li> <li>• <b>Application:</b> Zones with chemicals, Uncontaminated zones</li> </ul>	YF2A14-050VB3XLEAX	2096235
	<ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Male connector, M12, 4-pin, straight, A-coded</li> <li>• <b>Description:</b> Unshielded</li> <li>• <b>Connection systems:</b> Screw-type terminals</li> <li>• <b>Permitted cross-section:</b> ≤ 0.75 mm<sup>2</sup></li> </ul>	STE-1204-G	6009932

## 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](http://www.sick.com)