



WLR2100-D1311

ZoneControl

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ

Ordering information

Type	part no.
WLR2100-D1311	7027185

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

Detailed technical data

Features

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

¹⁾ Reflector PL80A.

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

Mechanics/electronics

Supply voltage U_B	18 V DC ... 30 V DC
Ripple	< 5 V _{pp} ¹⁾
Current consumption	40 mA ²⁾
Switching output	PNP
Switching mode	Light switching
Response time	1 ms
Switching frequency	500 Hz
Connection type	Cable with M12 male connector, 4-pin, 300 mm

¹⁾ Of V_S.

²⁾ Without load and valve deenergized.

³⁾ A = V_S connections reverse-polarity protected.

⁴⁾ C = interference suppression.

⁵⁾ D = outputs overcurrent and short-circuit protected.

Connection type for daisy chain	Cable with female connector, M12, 4-pin 1 m
Circuit protection	A ³⁾ C ⁴⁾ D ⁵⁾
Protection class	II
Housing material	Plastic, ABS
Enclosure rating	IP67
Shock and vibration resistance	According to IEC 68
Ambient operating temperature	-25 °C ... +55 °C
Ambient temperature, storage	-40 °C ... +70 °C
Connection type solenoid valve	Spade, 1 m

¹⁾ Of V_S .

²⁾ Without load and valve deenergized.

³⁾ A = V_S connections reverse-polarity protected.

⁴⁾ C = interference suppression.

⁵⁾ D = outputs overcurrent and short-circuit protected.

Pneumatic

Connection type solenoid valve	Spade, 1 m
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Classifications

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

Downstream

Product flow

Upstream

+V DC

0 V DC

Single release*

Slug release

L+ 1

M 3

E 2

V1 4

Release in

Logic out

RD

YE

M12 female upstream

M12 male downstream

* Single accumulation models only

Output cable to valve or motor control

Technical drawing of the M30 x 1.5 cable gland, showing front, side, and top views with dimensions in mm and inches.

Front View (Left):

- Overall width: 45 (1.77)
- Top flange height: 22.2 (0.87)
- Flange thickness: 16.9 (0.67)
- Mounting hole diameter: 16.9 (0.67)
- Bottom flange height: 25 (0.98)
- Bottom flange thickness: 5.7 (0.22)
- Bottom flange width: 32.1 (1.26)
- Bottom flange height: 7.8 (0.31)

Side View (Right):

- Overall width: 48.6 (1.91)
- Overall height: 73.7 (2.90)
- Top flange height: 52.3 (2.06)
- Bottom flange height: 9.8 (0.39)

Top View (Bottom):

- Thread: M30 x 1.5
- Mounting hole diameter: 16.9 (0.67)

- 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

	Brief description	Type	part no.
Mounting systems			
	Description: Mounting bracket Material: Steel Details: Steel, zinc coated Items supplied: Mounting hardware included	BEF-WN-RT/IRT	2074621
	Description: Mounting bracket Material: Steel Details: Steel, zinc coated Items supplied: Mounting hardware included Usable for: WTR/WLR, IRT	BEF-WK-WTR	2051786
	Description: Universal mounting bracket for reflectors Dimensions (W x H x L): 85 mm x 90 mm x 35 mm Material: Steel Details: Steel, zinc coated Suitable for: C110A, P250, PL20, PL30A, PL40A, PL80A	BEF-WN-REFX	2064574
	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
connectors and cables			
	Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals, Uncontaminated zones	YF2A14-050VB3XLEAX	2096235
	Connection type head A: Male connector, M12, 4-pin, straight, A-coded Description: Unshielded Connection systems: Screw-type terminals Permitted cross-section: ≤ 0.75 mm²	STE-1204-G	6009932
	Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation	YF2A14-050UB3XLEAX	2095608
reflectors and optics			
	Description: Rectangular, screw connection Dimensions: 51 mm 61 mm Ambient operating temperature: -30 °C ... +65 °C	P250	5304812

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:

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