



# ZLM1-B2221A10

ZoneControl

MULTITASK PHOTOELECTRIC SENSORS

**SICK**  
Sensor Intelligence.

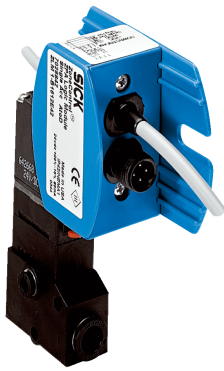


Illustration may differ



## Ordering information

Type	Part no.
ZLM1-B2221A10	7027778

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

## Detailed technical data

### Features

<b>Actuator</b>	Pneumatic, valve on board
<b>Max. number of sensors</b>	Approx. 30 <sup>1)</sup> Approx. 50 <sup>2)</sup>
<b>Logical principle of operation</b>	Block (slug) accumulation
<b>Type of Release</b>	Block (slug) release
<b>Dimensions (W x H x D)</b>	31 mm x 110 mm x 83 mm
<b>Special applications</b>	ZoneControl

<sup>1)</sup> When powerd from the end of the IR daisy chain.

<sup>2)</sup> When powerd from center of the IR daisy chain.

### Mechanics/electronics

<b>Supply voltage <math>U_B</math></b>	$\geq 21.6$ V DC <sup>1)</sup>
<b>Ripple</b>	$< 5$ V <sub>pp</sub> <sup>2)</sup>
<b>Current consumption</b>	60 mA <sup>3)</sup>
<b>Switching output</b>	PNP
<b>Signal voltage PNP HIGH/LOW</b>	Approx. $V_S - 0.5$ V / 0 V
<b>Output current <math>I_{max.}</math></b>	$\leq 100$ mA
<b>Response time</b>	2.5 ms
<b>Switching frequency</b>	200 Hz

<sup>1)</sup> Limit values.

<sup>2)</sup> May not fall below or exceed  $U_V$  tolerances.

<sup>3)</sup> Without load and valve deenergized.

<sup>4)</sup> Do not bend below 0 °C.

<sup>5)</sup> A =  $V_S$  connections reverse-polarity protected.

<sup>6)</sup> C = interference suppression.

<sup>7)</sup> D = outputs overcurrent and short-circuit protected.

<sup>8)</sup> Reference voltage: 50 V DC.

<sup>9)</sup> Other valve types available on request.

<b>Connection type</b>	Cable with female connector, M8, 4-pin, 0.5 m <sup>4)</sup>
<b>Connection type for daisy chain</b>	Cable with M12 male connector, 4-pin 2 m
<b>Cable material</b>	Plastic, PVC
<b>Circuit protection</b>	A <sup>5)</sup> C <sup>6)</sup> D <sup>7)</sup>
<b>Protection class</b>	III <sup>8)</sup>
<b>Housing material</b>	Plastic, ABS
<b>Enclosure rating</b>	IP40
<b>Shock and vibration resistance</b>	According to IEC 68
<b>Ambient operating temperature</b>	-10 °C ... +55 °C
<b>Ambient temperature, storage</b>	-40 °C ... +75 °C
<b>Medium for valves</b>	Compressed air or neutral gases filtered, non-lubricated or lubricated
<b>Design solenoid valve</b>	3/2-way valve <sup>9)</sup>
<b>Mode of operation solenoid valve</b>	Air to Drive (NC)
<b>Connection type solenoid valve</b>	Compressed air 3/8 " diameter, control line 1/4 " diameter
<b>Coil ratings</b>	24 V DC 1 W
<b>Air flow rate</b>	40 NI/min
<b>Ventilation capacity</b>	40 NI/min
<b>Operating pressure range</b>	0 bar ... 4.5 bar
<b>Response time solenoid valve</b>	Partially open, 10 ms Open, 23 ms Close, 21 ms

<sup>1)</sup> Limit values.

<sup>2)</sup> May not fall below or exceed U<sub>y</sub> tolerances.

<sup>3)</sup> Without load and valve deenergized.

<sup>4)</sup> Do not bend below 0 °C.

<sup>5)</sup> A = V<sub>S</sub> connections reverse-polarity protected.

<sup>6)</sup> C = interference suppression.

<sup>7)</sup> D = outputs overcurrent and short-circuit protected.

<sup>8)</sup> Reference voltage: 50 V DC.

<sup>9)</sup> Other valve types available on request.

## Pneumatic

<b>Coil ratings</b>	24 V DC 1 W
<b>Medium for valves</b>	Compressed air or neutral gases filtered, non-lubricated or lubricated
<b>Design solenoid valve</b>	3/2-way valve <sup>1)</sup>
<b>Connection type solenoid valve</b>	Compressed air 3/8 " diameter, control line 1/4 " diameter
<b>Air flow rate</b>	40 NI/min
<b>Ventilation capacity</b>	40 NI/min
<b>Operating pressure range</b>	0 bar ... 4.5 bar
<b>Response time solenoid valve</b>	Partially open 10 ms Open 23 ms Close 21 ms

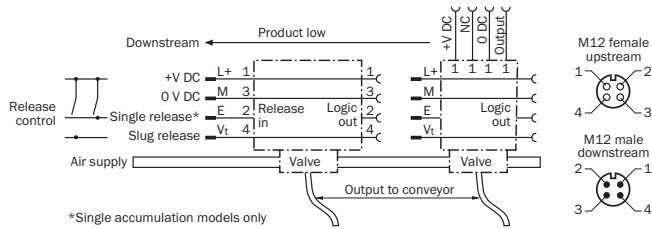
<sup>1)</sup> Other valve types available on request.

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

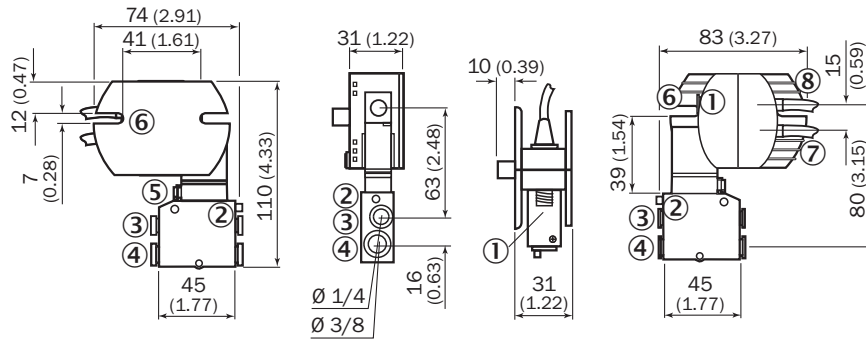
Connection diagram

Cd-263



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



ZLM-B



- ① ZLM series connection, male connector
- ② Exhaust
- ③ Output port (x1)
- ④ Media connector (x2)
- ⑤ Manual override switch
- ⑦ Daisy chain connector, male or female
- ⑧ Sensor connection cable, female
- ⑨ Mounting stud
- ⑩ Anti-rotation stud
- ⑪ Mounting clip

**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
		BEF-WN-RT/IRT	2074621

## 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)