Air Sensor Unit
for 1-Port Sensing Series
Model LZV0010

**Description**
Air sensor unit with air sensor, valve, filter, regulator and cleaning circuit required for action confirmation of 1-Port Sensing Series (LHV/LKV/LLV) unitized by KOSMEK. Depending on operating conditions, we complete sensor setting before shipment.

**Model No. Indication**

**LZV0010 - C 2 H A**

1. **Design No.**
   - **0**: Revision Number

2. **Connected Clamp Model No.**
   - **C**: for LHV / LKV
   - **L**: for LLV

3. **The Number of Connected Clamps**
   - 2 - 4 clamps in case of **C**
     (Exception: 2 - 3 clamps in case of Sensor Supply Pressure Code **L**)
   - 1 - 2 cylinders in case of **L**

   ex.) Indicate with “3” when connecting three LHV cylinders.
   Indicate with “1” when connecting one LLV cylinder.

4. **Sensor Supply Pressure Code**
   - **H**: 200 kPa (0.200MPa)
   - **M**: 150 kPa (0.150MPa)
   - **L**: 100 kPa (0.100MPa)

   ※ In case of connecting 4 clamps, please select the code **H** or **M** (more than 150kPa).
   ※ It shows supply pressure to air sensor / discharge pressure from A port.

5. **Sensor Output Specification Code**
   - **A**: NPN Output
   - **B**: PNP Output

**Specifications**

<table>
<thead>
<tr>
<th>Model No.</th>
<th>LZV0010</th>
<th>LZV0010</th>
<th>LZV0010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Supply Pressure (to P Port) MPa</td>
<td>0.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Min. Supply Pressure (to P Port) MPa</td>
<td>0.150</td>
<td>0.200</td>
<td>0.250</td>
</tr>
<tr>
<td>Sensor Supply Pressure MPa</td>
<td>0.100</td>
<td>0.150</td>
<td>0.200</td>
</tr>
<tr>
<td>Max. Operating Temp. °C</td>
<td>0 ~ 50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Usable Fluid</td>
<td>Dry Air</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voltage</td>
<td>DC24V±10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Consumption</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W Air Sensor</td>
<td>0.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>W Solenoid Valve</td>
<td>4.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>kg</td>
<td>2.4</td>
<td></td>
</tr>
</tbody>
</table>

**Circuit Symbols**

- **Cautions**
  - ※1. Regularly clean the sensing circuits after A port.
  - 1. When cleaning the circuits for LHV and LKV, please make sure clamps are in an unclamped state.
  - 2. When cleaning the circuits for LLV, please make sure LLV cylinder is at pulling end.
External Dimensions

DIN Terminal (Cable Outer Diam. φ 6 ~ φ 12) (Cable: prepared by customer)

Direct-Operated 2-Port Solenoid Valve for Cleaning Circuit

VX21082AXB : SMC
Voltage : DC24V
Cable Port : DIN Terminal (with Light, with Surge Voltage Suppressor)

Check Valve
(AKH06A-01S : SMC)

A Port
(One-touch Fitting for φ 6)

Two-Output Air Sensor
(ISA3-GCA-M1L : SMC)

Right Angle Cable 5m
(Included)

5 μ Air Filter
(ZFC54B : SMC)

P Port : Air Supply Port
(One-touch Fitting for φ 6)

Cautions for Use

1. Setting of threshold value and hysteresis of the sensor is completed by KOSMEK. (Setting values differ depending on the unit model.)
2. When adjusting supply pressure to the sensor by using a regulator, check the displayed value on the SUP port side on the sensor subscreen.
3. Please refer to P. 10 when ordering a sensor or a sensor cable individually.

Electric Circuit Diagram

Sensor Output Specification Code : A

NPN Output
(ISA3-GCA-M1L : SMC)

Sensor Output Specification Code : B

PNP Output
(ISA3-GCB-M1L : SMC)

- Output 1 is for LHV/LKV clamping action confirmation and LLV pushing side action confirmation.
- Output 2 is for LHV/LKV unclamping action confirmation and LLV pulling side action confirmation.

Connector Attaching/Detaching Method

- Connector should be tightened by hand.
- Adjust the directions of the key of the connector on the main body side and the key slot of the connector on the cable side, and insert it vertically.
- Turn the knurling part of the connector on the cable side clockwise.
- When the knurling part is securely tightened, connection is completed. Make sure there is no looseness.
Electric Circuit Diagram of Solenoid Valve for Cleaning Circuit

- Refer to the following for connecting DIN terminal.

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIN Terminal</td>
<td>+ (-)</td>
<td>— (+)</td>
</tr>
</tbody>
</table>

* There is no polarity.

Notes:
1. Insert a small flat head screwdriver into a cutout on the bottom of the terminal block, and remove the terminal block from the housing.
2. Tightening torque range is 0.5 ~ 0.6 N·m.
3. Applicable cable outer diameter is ø 6 ~ ø 12mm. For cable outer diameter: ø 9 ~ ø 12mm, remove the internal parts of the rubber seal before use.
Model Number of Single Air Sensor

**LZV0020 - C 2 HA**

1. **Design No.**
   - 0: Revision Number

2. **Connected Clamp Model No.**
   - C: for LHV / LKV
   - L: for LLV

3. **The Number of Connected Clamps**
   - 2 to 4: 2 - 4 clamps in case of C
   - (Exception: 2 - 3 clamps in case of L)
   - 1 to 2: 1 - 2 cylinders in case of L

   ex.) Indicate with "3" when connecting three LHV cylinders.
   Indicate with "1" when connecting one LLV cylinder.

4. **Sensor Supply Pressure Code**
   - H: 200 kPa (0.200MPa)
   - M: 150 kPa (0.150MPa)
   - L: 100 kPa (0.100MPa)

   ※ In case of connecting 4 clamps, please select the code H or M (more than 150kPa).
   ※ It shows supply pressure to air sensor / discharge pressure from A port.

5. **Sensor Output Specification Code**
   - A: NPN Output
   - B: PNP Output

Model number 1~5: the same with LZV0010.

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Model Number of Single Cable

**LZV0030 - L**

1. **Design No.**
   - 0: Revision Number

2. **Option**
   - L: Right Angle Cable
   - S: Straight Cable

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<table>
<thead>
<tr>
<th>Model No.</th>
<th>LZV0020-CAHA</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>0.15</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Model No.</th>
<th>LZV0030-L</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>0.15</td>
</tr>
</tbody>
</table>
Cautions

Notes on Handling

1) It should be operated by qualified personnel.
   - Hydraulic and/or pneumatic machines and devices should be operated and maintained by qualified personnel.

2) Do not operate or remove the product unless the safety protocols are ensured.
   - The machine and equipment can only be inspected or prepared when it is confirmed that the safety devices are in place.
   - Before removing the product, make sure that the above-mentioned safety devices are in place. Shut off the pressure and power source, and make sure no pressure exists in the air circuits.
   - After stopping the product, do not remove until the temperature drops.
   - Make sure there is no trouble/issue in the bolts and respective parts before restarting the machine or equipment.

3) Do not disassemble or modify.
   - If the product is taken apart or modified, the warranty will be voided even within the warranty period.

Maintenance and Inspection

1) Removal of the Product and Shut-off of Pressure Source
   - Before removing the product, make sure that safety devices and preventive devices are in place. Shut off the pressure and power source, and make sure no pressure exists in air circuits.
   - Make sure there is no abnormality in the bolts and respective parts before restarting.

2) Regularly tighten pipes, mounting bolts and others to ensure proper use.

3) The products should be stored in the cool and dark place without direct sunshine or moisture.

4) Please contact us for overhaul and repair.

Warranty

1) Warranty Period
   - The product warranty period is 18 months from shipment from our factory or 12 months from initial use, whichever is earlier.

2) Warranty Scope
   - If the product is damaged or malfunctions during the warranty period due to faulty design, materials or workmanship, we will replace or repair the defective part at our expense.
   - Defects or failures caused by the following are not covered.
     1) If the stipulated maintenance and inspection are not carried out.
     2) Failure caused by the use of the non-confirming state at the user’s discretion.
     3) If it is used or handled in inappropriate way by the operator. (Including damage caused by the misconduct of the third party.)
     4) If the defect is caused by reasons other than our responsibility.
     5) If repair or modifications are carried out by anyone other than Kosmek, or without our approval and confirmation, it will void warranty.
     6) Other caused by natural disasters or calamities not attributable to our company.
     7) Parts or replacement expenses due to parts consumption and deterioration. (Such as rubber, plastic, seal material and some electric components.)

   Damages excluding from direct result of a product defect shall be excluded from the warranty.