Multistage Ejector
ZL112/212 Series

Energy-saving, large flow rate, 3 stage diffuser construction

Suction flow rate increased 250% and air consumption reduced 20% with 3 stage diffuser construction
(Versus ø1.3, one stage model)

ZL212 Series
Diffusers stacked and integrated
Compact size and large flow rate
(Twice the flow rate of the ZL112)

<table>
<thead>
<tr>
<th>Suction flow rate (L/min (ANR))</th>
<th>Air consumption (L/min (ANR))</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZL112 100</td>
<td>63</td>
</tr>
<tr>
<td>ZL212 200</td>
<td>126</td>
</tr>
</tbody>
</table>

Series Variations

<table>
<thead>
<tr>
<th>Series</th>
<th>Maximum suction flow rate (L/min (ANR))</th>
<th>Air consumption (L/min (ANR))</th>
<th>Exhaust port</th>
<th>With valve</th>
<th>Vacuum pressure sensor option</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZL112</td>
<td>100</td>
<td>63</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZL212</td>
<td>200</td>
<td>126</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* For ZSE30A series, refer to the Best Pneumatics No. 8 for details.
## Multistage Ejector
### ZL112 Series

#### How to Order

<table>
<thead>
<tr>
<th>Without valve</th>
<th>ZL112</th>
<th>With valve</th>
<th>ZL112</th>
</tr>
</thead>
</table>

**Nozzle diameter**
- 12
- 1.2

**Exhaust type**
- NI: Built-in silencer
- P: Port exhaust

**Exhaust port (EXH) thread type**
- NI: Rc1/2
- F: G1/2
- N: 1/2-14 NPT
- T: 1/2-14 NPTF

**Supply valve/Release valve combination**
- K1: With supply and release valves
- K2: With supply valve

### DC specifications
- 5: 24V
- 6: 12V
- 7: 6V
- 8: 5V
- 9: 3V

### AC specifications (50/60 Hz)
- 1: 100V
- 2: 200V
- 3: 110V/115V
- 4: 220V/230V

#### Lead wire specifications
- L: Lead wire with connector (Length 2 m)

#### Unit specifications
- N: With unit switching function
- M: SI unit only
- P: With unit switching function (Initial value psi)

#### Output specifications
- N: NPN open collector 1 output
- P: PNP open collector 1 output
- A: NPN open collector 2 outputs
- B: PNP open collector 2 outputs
- C: NPN open collector 1 output + Analog voltage output
- D: NPN open collector 1 output + Analog current output
- E: PNP open collector 1 output + Analog voltage output
- F: PNP open collector 1 output + Analog current output

#### Vacuum pressure sensor
- N: None
- GN: Vacuum port adaptor Rc 1/8
- G: Vacuum pressure gauge
- D: Digital pressure switch for vacuum

### Rated voltage

#### Electrical entry

<table>
<thead>
<tr>
<th>G</th>
<th>Grommet</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>Lead wire length 0.3 m</td>
</tr>
<tr>
<td>L</td>
<td>Lead wire length 0.6 m</td>
</tr>
<tr>
<td>LN</td>
<td>Without lead wires</td>
</tr>
<tr>
<td>LO</td>
<td>Without connector</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>M</th>
<th>M plug connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Lead wire length 0.3 m</td>
</tr>
<tr>
<td>P</td>
<td>Without lead wires</td>
</tr>
<tr>
<td>MN</td>
<td>Without connector</td>
</tr>
</tbody>
</table>

#### Light/Surge voltage suppressor

| N | Without light/surge voltage suppressor |
| Z | With light/surge voltage suppressor |
| U | With light/surge voltage suppressor (Non-polar type) |

### Manual override

| N | Non-locking push type |
| D | Locking slotted type |

### Notes
1. Type U is 24 or 12 VDC only.
2. Since surge voltage is prevented by a rectifier in the case of AC, there is no type "S".
3. This is not available for models without lead wires.

### Related
- The ZL112 series has been remodeled. Click here for details.
Multistage Ejector  ZL112 Series

### Ejector Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>ZL112</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nozzle diameter</td>
<td>1.2 mm</td>
</tr>
<tr>
<td>Maximum suction flow rate</td>
<td>100 L/min (ANR)</td>
</tr>
<tr>
<td>Air consumption</td>
<td>63 L/min (ANR)</td>
</tr>
<tr>
<td>Maximum vacuum pressure</td>
<td>–84 kPa</td>
</tr>
<tr>
<td>Maximum operating pressure</td>
<td>0.7 MPa</td>
</tr>
<tr>
<td>Supply pressure range</td>
<td>0.2 to 0.5 MPa</td>
</tr>
<tr>
<td>Standard supply pressure</td>
<td>0.4 MPa</td>
</tr>
<tr>
<td>Operating temperature range</td>
<td>5 to 50°C</td>
</tr>
</tbody>
</table>

### Supply/Release Valve Specifications

<table>
<thead>
<tr>
<th>Part no.</th>
<th>SYJ514-□□□□</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of valve actuation</td>
<td>N.C.</td>
</tr>
<tr>
<td>Fluid</td>
<td>Air</td>
</tr>
<tr>
<td>Operating pressure range</td>
<td>0.15 to 0.7 Mpa</td>
</tr>
<tr>
<td>Internal pilot type</td>
<td>0.15 to 0.7 Mpa</td>
</tr>
<tr>
<td>Ambient and fluid temperature</td>
<td>–10°C to 50°C (No freezing)</td>
</tr>
<tr>
<td>Response time (For 0.5 MPa) (1)</td>
<td>25 ms or less</td>
</tr>
<tr>
<td>Maximum operating frequency</td>
<td>5 Hz</td>
</tr>
<tr>
<td>Manual override</td>
<td>Non-locking push type/Locking slotted type</td>
</tr>
<tr>
<td>Pilot exhaust type</td>
<td>Pilot valve individual exhaust, Main valve/Pilot valve common exhaust</td>
</tr>
<tr>
<td>Lubrication</td>
<td>Not required</td>
</tr>
<tr>
<td>Mounting position</td>
<td>Unrestricted</td>
</tr>
<tr>
<td>Impact/Vibration resistance (2)</td>
<td>150/30 m/s²</td>
</tr>
<tr>
<td>Enclosure</td>
<td>Dust proof</td>
</tr>
</tbody>
</table>

Note 1) Based on JIS B 8374-1981 dynamic performance test. (coil temperature 20°C, at rated voltage, without surge voltage suppressor)

Note 2) Impact resistance: No malfunction when tested with a drop tester in the axial direction and at a right angle to the main valve and armature, one time each in both energized and deenergized states. (initial value)

Vibration resistance: No malfunction when tested with one sweep of 45 to 2000 Hz in the axial direction and at a right angle to the main valve and armature, one time each in both energized and deenergized states. (initial value)

Note 3) Refer to “Best Pneumatics No. 1-2” for details on valves.

### Vacuum Pressure Gauge Specifications

<table>
<thead>
<tr>
<th>Part no.</th>
<th>GZ30S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluid</td>
<td>Air</td>
</tr>
<tr>
<td>Pressure range</td>
<td>–100 to 100 kPa</td>
</tr>
<tr>
<td>Scale range (Angular)</td>
<td>230°</td>
</tr>
<tr>
<td>Accuracy</td>
<td>±3% F.S. (Full span)</td>
</tr>
<tr>
<td>Class</td>
<td>Class 3</td>
</tr>
<tr>
<td>Operating temperature range</td>
<td>0 to 50°C</td>
</tr>
<tr>
<td>Material</td>
<td>Housing: Polycarbonate/ABS resin</td>
</tr>
</tbody>
</table>

### Weight

<table>
<thead>
<tr>
<th>Description</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZL112 (Basic)</td>
<td>450 g</td>
</tr>
<tr>
<td>Port exhaust</td>
<td>+110 g</td>
</tr>
<tr>
<td>Digital pressure switch for vacuum (Excluding lead wire)</td>
<td>+43 g</td>
</tr>
<tr>
<td>Digital pressure switch for vacuum (Including 3 cores lead wire)</td>
<td>+81 g</td>
</tr>
<tr>
<td>Digital pressure switch for vacuum (Including 4 cores lead wire)</td>
<td>+85 g</td>
</tr>
<tr>
<td>Valve (per 1 pc.)</td>
<td>+45 g</td>
</tr>
</tbody>
</table>
Vacuum Pressure Switch Replacement

It is impossible to replace only the vacuum pressure switch. Please replace the suction cover assembly. For ordering information, refer to How to Order.

For details about vacuum pressure switch functions, refer to the ZSE30A series in the Best Pneumatics No. 8.

- The vacuum pressure switch mounted on this product is equivalent to our SMC product, the ZL series compact digital pressure switch.

Pressure switch correspondence table

**Digital pressure switch ZSE30A series**

<table>
<thead>
<tr>
<th>Ejector size</th>
<th>Vacuum pressure sensor</th>
<th>Lead wire specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ZL112</td>
<td>Nil</td>
<td>None</td>
</tr>
<tr>
<td>2 ZL212</td>
<td>GN</td>
<td>Vacuum port adaptor Rc1/8</td>
</tr>
<tr>
<td></td>
<td>G</td>
<td>Vacuum pressure gauge</td>
</tr>
<tr>
<td></td>
<td>D</td>
<td>Digital pressure switch for vacuum</td>
</tr>
</tbody>
</table>

Output specifications (Applicable only when the vacuum pressure sensor specification is "D" for digital pressure switch for vacuum)

- N: NPN open collector 1 output
- P: PNP open collector 1 output
- A: NPN open collector 2 outputs
- B: PNP open collector 2 outputs
- C: NPN open collector 1 output+Analog voltage output
- D: NPN open collector 1 output+Analog current output
- E: PNP open collector 1 output+Analog voltage output
- F: PNP open collector 1 output+Analog current output

Lead wire specifications (Applicable only when the vacuum pressure sensor specification is "D" for digital pressure switch for vacuum)

- Nil: None
- NL: Lead wire with connector
- L: Lead wire with connector

Unit specifications (Applicable only when the vacuum pressure sensor specification is "D" for digital pressure switch for vacuum)

- Nil: With unit display switching function
- M: Fixed 5⅓ unit
- P: With unit display switching function

Note 1) When analog output voltage is selected, analog current output cannot be used together.

Note 2) When analog current output is selected, analog voltage output cannot be used together.

Note 3) If the applied pressure fluctuates around the set value, the hysteresis must be set to a value more than the fluctuating width, otherwise, chattering will occur.

Rating pressure range 0.0 to –101.0 kPa

Set pressure range 10.0 to –105.0 kPa

Withstand pressure 500 kPa

Minimum unit setting 0.1 kPa

Applicable fluid Air

Power supply voltage 12 to 24 VDC ±10% (with power supply polarity protection)

Current consumption 40 mA (at no load)

Switch output NPN or PNP open collector 1 output

Maximum load current 80 mA

Maximum applied voltage 28 V (at NPN output)

Residual voltage 1 V or less (with load current of 80 mA)

Response time 2.5 ms or less (with anti-chattering function: 20, 100, 500, 1000, 2000 ms)

Short circuit protection Yes

Repeatability ±0.2% F.S. ±1 digit

Hysteresis mode Variable (0 to variable)

Window comparator mode -

Output voltage (Rated pressure range) 1 to 5 V ±2.5% F.S.

Linearity ±1% F.S. or less

Output impedance Approx. 1 kΩ

Current output (Rated pressure range) 4 to 20 mA ±2.5% F.S.

Linearity ±1% F.S. or less

Load impedance Maximum load impedance: Power supply voltage 12 V: 300 Ω, Power supply voltage 24 V: 600 Ω Minimum load impedance: 50 Ω

Display 4-digit, 7-segment, 2-color LCD (Red/Green) Sampling cycle: 5 times/sec.

Display accuracy ±2% F.S. ±1 digit (Ambient temperature of 25°C)

Indicator light Lights up when switch output is turned ON. (OUT1: Green, OUT2: Red)

Enclosure IP60

Operating temperature range Operating: 0 to 50°C, Stored: –10 to 60°C (No freezing or condensation)

Operating humidity range Operating/Store: 35 to 85% RH (No condensation)

Withstand voltage 1000 VAC for 1 minute between terminals and housing

Insulation resistance 50 MΩ or more (500 VDC measured via megohmmeter) between terminals and housing

Temperature characteristics ±2% F.S. (Based on 25°C)

Lead wire Oilproof heavy-duty vinyl cable, 3 cores ø3.5, 2 m 4 cores Conductor area: 0.15 mm² (AWG26)

Insulator O.D.: 1.0 mm

Standard CE Marking, UL/CSA, RoHS compliance

Insulator O.D.: 1.0 mm

Weight and Measure Act has been implemented since October, 99.

Note 1) When analog output voltage is selected, analog current output cannot be used together.

Note 2) When analog current output is selected, analog voltage output cannot be used together.

Note 3) If the applied pressure fluctuates around the set value, the hysteresis must be set to a value more than the fluctuating width, otherwise, chattering will occur.

For ordering information, refer to How to Order.
Exhaust Characteristics/Flow Rate Characteristics/Time to Reach Vacuum (Representative value)

**ZL112**

### Exhaust Characteristics

- **Vacuum Pressure vs. Supply Pressure**
  - Vacuum pressure ranges from -100 kPa to 0 kPa.
  - Supply pressure ranges from 0 MPa to 0.6 MPa.

### Flow Rate Characteristics

- **Vacuum Pressure vs. Suction Flow Rate**
  - Vacuum pressure ranges from -100 kPa to 0 kPa.
  - Suction flow rate ranges from 0 L/min to 130 L/min.

### Time to Reach Vacuum

- **Vacuum Pressure vs. Time**
  - Vacuum pressure ranges from -100 kPa to 0 kPa.
  - Time ranges from 0 to 12 seconds.

**How to Read the Graph**

The graphs indicate the time required to reach a vacuum pressure determined by adsorption conditions for workpieces, etc., starting from atmospheric pressure in a 1L sealed tank. Approximately 8.8 seconds are necessary to attain a vacuum pressure of -89 kPa.

1. If the ejector's suction port is closed and sealed tight, the suction flow rate becomes “0” and the vacuum pressure increases to the maximum (Pmax).
2. If the suction port is opened and air is allowed to flow (the air leaks), the suction flow rate and the vacuum pressure decreases. (the condition of P1 and Q1)
3. If the suction port is opened completely, the suction flow rate increases to the maximum (Qmax), while the vacuum pressure then drops almost to “0” (atmospheric pressure). When adsorbing work pieces which are permeable or subject to leakage, etc., caution is required as the vacuum pressure will not be very high.
**Table 1. How to order connector assembly**

For DC
- SY100-30-4A-

For 100 VAC
- SY100-30-1A-

For other AC
- SY100-30-3A-

<table>
<thead>
<tr>
<th>Description</th>
<th>Material</th>
<th>Part no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sound absorbing material B</td>
<td>PVF</td>
<td>ZL112-SP01 (Set no. for 9, 10 &amp; 11)</td>
</tr>
<tr>
<td>Sound absorbing material A</td>
<td>PVF</td>
<td></td>
</tr>
<tr>
<td>Suction filter</td>
<td>PE</td>
<td></td>
</tr>
</tbody>
</table>

**Construction**

**Component Parts**

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Part no.</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Suction cover</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Front cover</td>
<td></td>
<td>Without valve</td>
</tr>
<tr>
<td>3</td>
<td>End cover</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Body</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Vacuum sensor unit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Nozzle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Diffuser</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Detent plug</td>
<td></td>
<td>Other than vacuum switch</td>
</tr>
<tr>
<td>9</td>
<td>Lead wire cover</td>
<td></td>
<td>Vacuum switch specifications</td>
</tr>
<tr>
<td>10</td>
<td>Front cover B</td>
<td></td>
<td>With valve</td>
</tr>
<tr>
<td>11</td>
<td>Valve plate</td>
<td></td>
<td>With valve</td>
</tr>
<tr>
<td>12</td>
<td>Needle</td>
<td></td>
<td>With valve</td>
</tr>
<tr>
<td>13</td>
<td>Supply valve (N.C.)</td>
<td>SYJ514-□□□</td>
<td>With valve (Table1.)</td>
</tr>
<tr>
<td>14</td>
<td>Release valve (N.C.)</td>
<td>SYJ514-□□□</td>
<td>With valve</td>
</tr>
<tr>
<td>15</td>
<td>Connector assembly</td>
<td>SYJ100-30-□□□</td>
<td>With valve (Table1.)</td>
</tr>
</tbody>
</table>

**Replacement Parts**

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Material</th>
<th>Part no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>Without valve</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>With valve</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Lead wire length**

- **$100\text{mm}$ (Standard)**
- **$600\text{mm}$**
- **$1000\text{mm}$**
- **$1500\text{mm}$**
- **$2000\text{mm}$**
- **$2500\text{mm}$**
- **$3000\text{mm}$**
- **$5000\text{mm}$**
Dimensions: ZL112 Series (Without Valve)

- **Standard ZL112**
- **Port exhaust ZL112P**
- **With vacuum pressure gauge ZL112-G**
- **With vacuum adapter ZL112-GN**
- **With digital pressure switch for vacuum ZL112-D**

Circuit diagram
- Silencer
- Port exhaust
- With gauge
- With adapter
- ZSE30A (With analog output)
- ZSE30A (With analog output)
**ZL112 Series**

**Dimensions: ZL112 Series (With Valve)**

**With supply valve and release valve**

ZL112-K1L□□□□

**Circuit diagram**

- Digital vacuum pressure switch
- Exhaust port
- Supply valve
- Release valve
- Air pressure supply port (P)
- Applicable tubing O.D. 6
- Vacuum port (V)
- Applicable tubing O.D. 12
- 2 x ø5.4 Mounting hole

**With supply valve**

ZL112-K2L□□□□

**Circuit diagram**

- Digital pressure switch for vacuum
- Blanking plate assembly (SYJ500-10-3A)
- Supply valve

**Additional Information**

- Name plate
- Release flow adjusting needle
- Manual
- 4 x M4 x 0.7 Thread depth 8 (For mounting)

**Somatosensory Impedance Measurement System**

- Dimensions: ZL112 Series (With Valve)
- With supply valve and release valve
- ZL112-K1L□□□□
- Circuit diagram
- Digital vacuum pressure switch
- Exhaust port
- Supply valve
- Release valve
- Air pressure supply port (P)
- Applicable tubing O.D. 6
- Vacuum port (V)
- Applicable tubing O.D. 12
- 2 x ø5.4 Mounting hole

**With supply valve**

ZL112-K2L□□□□

**Circuit diagram**

- Digital pressure switch for vacuum
- Blanking plate assembly (SYJ500-10-3A)
- Supply valve
## Ejector Specifications

### How to Order

#### ZL2 12

**Nozzle diameter**
- 12 mm x 2

**Exhaust specifications**
- Nil: Built-in silencer
- P: Port exhaust

**Vacuum pressure sensor**
- Nil: None
- GN: Vacuum port adaptor Rc 1/8
- G: Vacuum pressure gauge
- D: Digital pressure switch for vacuum

#### Lead wire specifications

- L: Lead wire with connector (Length 2 m)
  - This is not available for models without lead wires.

#### Unit specifications

- Nil: With unit switching function
- M: SI unit only
- P: With unit switching function (Initial value psi)

**Note 1:** With unit switching function is not permitted to sell for the domestic use in Japan, because the new Weight and Measure Act has been implemented since October '99.

**Note 2:** Fixed unit: kPa

#### Output specifications

- Nil: With unit switching function
- N: NPN open collector 1 output
- P: PNP open collector 1 output
- A: NPN open collector 2 outputs
- B: PNP open collector 2 outputs
- C: NPN open collector 1 output + Analog voltage output
- D: NPN open collector 1 output + Analog current output
- E: PNP open collector 1 output + Analog voltage output
- F: PNP open collector 1 output + Analog current output

### Ejector Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>ZL212</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nozzle diameter</td>
<td>1.2 mm x 2</td>
</tr>
<tr>
<td>Maximum suction flow rate</td>
<td>200 L/min (ANR)</td>
</tr>
<tr>
<td>Air consumption</td>
<td>126 L/min (ANR)</td>
</tr>
<tr>
<td>Maximum vacuum pressure</td>
<td>-84 kPa</td>
</tr>
<tr>
<td>Maximum operating pressure</td>
<td>0.7 MPa</td>
</tr>
<tr>
<td>Supply pressure range</td>
<td>0.2 to 0.5 MPa</td>
</tr>
<tr>
<td>Standard supply pressure</td>
<td>0.4 MPa</td>
</tr>
<tr>
<td>Operating temperature range</td>
<td>5 to 50°C</td>
</tr>
</tbody>
</table>

### Weight

<table>
<thead>
<tr>
<th>Model</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZL212</td>
<td>700 g</td>
</tr>
<tr>
<td>Port exhaust</td>
<td>+300 g</td>
</tr>
<tr>
<td>Digital pressure switch for vacuum (Excluding lead wire)</td>
<td>+43 g</td>
</tr>
<tr>
<td>Digital pressure switch for vacuum (Including 3 cores lead wire)</td>
<td>+51 g</td>
</tr>
<tr>
<td>Digital pressure switch for vacuum (Including 4 cores lead wire)</td>
<td>+85 g</td>
</tr>
<tr>
<td>Valve (per 1 pc.)</td>
<td>+75 g</td>
</tr>
</tbody>
</table>
**ZL212 Series**

Exhaust Characteristics/Flow Rate Characteristics/Time to Reach Vacuum (Representative value)

### ZL212

**Exhaust Characteristics**

![Graph: Exhaust Characteristics](image)

- **Vacuum pressure** vs. **Supply pressure (MPa)**
- **Suction flow rate (L/min (ANR))** vs. **Supply pressure (MPa)**
- **Air consumption (L/min (ANR))** vs. **Supply pressure (MPa)**

**Time to Reach Vacuum**

- Tank capacity: 1L
- Supply pressure: 0.4 MPa
- Vacuum pressure reached: -89 kPa

![Graph: Time to Reach Vacuum](image)

- **Vacuum pressure in tank (kPa)** vs. **Time to reach vacuum (S)**

**Flow Rate Characteristics**

- Supply pressure: 0.4 MPa

![Graph: Flow Rate Characteristics](image)

**<How to Read the Graph>**

- The exhaust characteristics determine the time required to reach a vacuum pressure by adsorption conditions for workpieces, etc., starting from atmospheric pressure in a 1L sealed tank. Approximately 8.8 seconds are necessary to attain a vacuum pressure of -89 kPa.

**Construction**

![Construction Diagram](image)

**Component Parts**

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Suction cover</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Front cover A</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>End plate</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Body</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Vacuum sensor unit</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Nozzle</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Diffuser</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Detent plug</td>
<td>Other than vacuum switch</td>
</tr>
<tr>
<td>9</td>
<td>Lead wire cover</td>
<td>Vacuum switch specifications</td>
</tr>
</tbody>
</table>

**Replacement Parts**

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Material</th>
<th>Part no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Sound absorbing material A</td>
<td>PVA sponge</td>
<td>ZL212-SP01</td>
</tr>
<tr>
<td>10</td>
<td>Sound absorbing material</td>
<td>PVA sponge</td>
<td>(Set no. for 9 &amp; 10)</td>
</tr>
</tbody>
</table>
Dimensions: ZL212 Series

- **Standard ZL212**
- **Port exhaust ZL212P**
- **With vacuum pressure gauge ZL212-G**
- **With vacuum adapter ZL212-GN**
- **With digital pressure switch for vacuum ZL212-D**

**Circuit diagram**

- Silencer
- Port exhaust
- With gauge
- With adapter
- ZSE30A
- ZSE30A
ZL Series
Made to Order Specifications

Please contact SMC for detailed specifications, dimensions and lead times.

1 With Supply and Release Valves

ZL212  Valve | Voltage | Electrical entry | Vacuum pressure switch | Electrical entry | X132

With supply and release valves

ZL212 type with supply and release valves

Dimensions

Supply valve: SYJ714-

Release valve: SYJ714-

Vacuum (V) port Rc3/4

Air pressure supply (P) port Rc1/8

Vacuum break flow adjustment needle

2 x ø4.4 Mounting hole

4 x M5 x 0.8 Thread depth 6 (Mounting hole)
**ZL Series**

**Specific Product Precautions**

Be sure to read this before handling the products. Refer to back page 50 for Safety Instructions and pages 49 to 51 for Vacuum Equipment Precautions.

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### Operation of Ejector Valves

**Caution**

1. When the air supply valve is turned ON, vacuum is generated by the flow of compressed air from the nozzle to the diffuser. When the vacuum release valve is turned ON, the vacuum is quickly released as air passes through the release flow adjustment needle and flows to the vacuum port.

### Operating Environment

**Caution**

1. Avoid use exposed to direct sunlight.

### Solenoid Valves (ZL112 Series)

**Caution**

1. For specific product precautions on solenoid valves, refer to the Best Pneumatics No. 1-2.