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>Vacuum pressure sensor option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>ZL112</td>
</tr>
<tr>
<td>ZL212</td>
</tr>
</tbody>
</table>

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

ZL112 Series

How to Order

Without valve | ZL1 12 | 12
With valve    | ZL1 12 | K1 5 M Z

Nozzle diameter •
12 1.2

Exhaust type •
Nil Built-in silencer
P Port exhaust

Exhaust port (EXH) thread type •
(Port exhaust only)
Nil 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

Lead wire specifications •
(Applicable only when the vacuum pressure sensor specification is “D” for digital pressure switch for vacuum)
L Lead wire with connector (Length 2 m)
* This is not available for models without lead wires.

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

Note 3) The thread ridge shape is conforming to G thread standard (JIS B 0202), but other shapes are not conforming to ISO16030 and ISO1179.

DC specifications
5 24V
6 12V
V 6V
S 5V
R 3V

Rated voltage

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

Electrical entry •
G Grommet
H Lead wire length 0.3 m
L Lead wire length 0.6 m
LN Without lead wires
LO Without connector
M Lead wire length 0.3 m
MN Without lead wires
MO Without connector

Light/Surge voltage suppressor •
Nil Without light/surge voltage suppressor
S With surge voltage suppressor
Z With light/surge voltage suppressor
U With light/surge voltage suppressor (Non-polar type)

* Type U is 24 or 12 VDC only.
* Since surge voltage is prevented by a rectifier in the case of AC, there is no type “S”.

Manual override •
Nil Non-locking push type
D Locking slotted type

Lead wire specifications

Unable 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

Note 3) The thread ridge shape is conforming to G thread standard (JIS B 0202), but other shapes are not conforming to ISO16030 and ISO1179.

How to Order

ZL112 Series

How to Order

Without valve | ZL1 12 | 12
With valve    | ZL1 12 | K1 5 M Z

Nozzle diameter •
12 1.2

Exhaust type •
Nil Built-in silencer
P Port exhaust

Exhaust port (EXH) thread type •
(Port exhaust only)
Nil 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

Lead wire specifications •
(Applicable only when the vacuum pressure sensor specification is “D” for digital pressure switch for vacuum)
L Lead wire with connector (Length 2 m)
* This is not available for models without lead wires.

Unit specifications
(Applicable only when the vacuum pressure sensor specification is “D” for digital pressure switch for vacuum)
Nil With unit switching function
M SI unit only
P With unit switching function (Initial value psi)

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

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

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### Ejector Specifications

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value</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>Ambient and fluid temperature</td>
<td>–10°C to 50°C (No freezing)</td>
</tr>
<tr>
<td>Response time (For 0.5 MPa)</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</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>Value</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.

Digital pressure switch
ZSE30A series

Multistage ejector
ZL series

Multistage ejector suction cover assembly

- The vacuum pressure switch mounted on this product is equivalent to our SMC product, the ZSE30A series compact digital pressure switch.

### Specifications

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated pressure range</td>
<td>0.0 to –101.0 kPa</td>
</tr>
<tr>
<td>Set pressure range</td>
<td>10.0 to –105.0 kPa</td>
</tr>
<tr>
<td>Withstand pressure</td>
<td>500 kPa</td>
</tr>
<tr>
<td>Minimum unit setting</td>
<td>0.1 kPa</td>
</tr>
<tr>
<td>Applicable fluid</td>
<td>Air</td>
</tr>
<tr>
<td>Power supply voltage</td>
<td>12 to 24 VDC ±10% (with power supply polarity protection)</td>
</tr>
<tr>
<td>Current consumption</td>
<td>40 mA (at no load)</td>
</tr>
<tr>
<td>Switch output</td>
<td>NPN or PNP open collector 1 output</td>
</tr>
<tr>
<td></td>
<td>NPN or PNP open collector 2 outputs (selectable)</td>
</tr>
<tr>
<td>Maximum load current</td>
<td>80 mA</td>
</tr>
<tr>
<td>Maximum applied voltage</td>
<td>28 V (at NPN output)</td>
</tr>
<tr>
<td>Residual voltage</td>
<td>1 V or less (with load current of 80 mA)</td>
</tr>
<tr>
<td>Response time</td>
<td>2.5 ms or less (with anti-chattering function: 20, 100, 500, 1000, 2000 ms)</td>
</tr>
<tr>
<td>Short circuit protection</td>
<td>Yes</td>
</tr>
<tr>
<td>Repeatability</td>
<td>±0.2% F.S. ±1 digit</td>
</tr>
<tr>
<td>Hysteresis mode</td>
<td>Variable (0 to variable)</td>
</tr>
<tr>
<td>Window comparator mode</td>
<td>1 to 5 V ±2.5% F.S.</td>
</tr>
<tr>
<td>Linearity</td>
<td>±1% F.S. or less</td>
</tr>
<tr>
<td>Output voltage (Rated pressure range)</td>
<td>Approx. 1 kΩ</td>
</tr>
<tr>
<td>Linearity</td>
<td>4 to 20 mA ±2.5% F.S.</td>
</tr>
<tr>
<td>Output impedance</td>
<td>±1% F.S. or less</td>
</tr>
<tr>
<td>Load impedance</td>
<td>Maximum load impedance: Power supply voltage 12 V: 300 Ω. Power supply voltage 24 V: 600 Ω. Minimum load impedance: 50 Ω</td>
</tr>
<tr>
<td>Display</td>
<td>4-digit, 7-segment, 2-color LCD (Red/Green) Sampling cycle: 5 times/sec.</td>
</tr>
<tr>
<td>Display accuracy</td>
<td>±2% F.S. ±1 digit (Ambient temperature of 25°C)</td>
</tr>
<tr>
<td>Enclosure</td>
<td>IP60</td>
</tr>
<tr>
<td>Operating temperature range</td>
<td>Operating: 0 to 50°C, Stored: –10 to 60°C (No freezing or condensation)</td>
</tr>
<tr>
<td>Insulation resistance</td>
<td>50 MΩ (measured via megohmmeter) between terminals and housing</td>
</tr>
<tr>
<td>Temperature characteristics</td>
<td>±2% F.S. (Based on 25°C)</td>
</tr>
<tr>
<td>Lead wire</td>
<td>Oilproof heavy-duty vinyl cable, 3 cores ø3.5, 2 m</td>
</tr>
<tr>
<td></td>
<td>4 cores Conductor area: 0.15 mm² (AWG26)</td>
</tr>
<tr>
<td>Standards</td>
<td>CE Marking, UL/CSA, RoHS compliance</td>
</tr>
</tbody>
</table>

#### How to Order Suction Cover Assembly

- ZL [ ] 12 – SC [ ] [ ]

**Ejector size**

- ZL112
- ZL212

**Vacuum pressure sensor**

- Nil
- None

**Output specifications**

- Nil
- None

**Unit specifications**

- Nil
- With unit display switching function

**Lead wire specifications**

- Nil
- Lead wire with connector

### Note

1) When analog output voltage is selected, analog current output cannot be used together.
2) When analog current output is selected, analog voltage output cannot be used together.
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.
Exhaust Characteristics/Flow Rate Characteristics/Time to Reach Vacuum (Representative value)

ZL112

**Exhaust Characteristics**

- Vacuum pressure vs. supply pressure graph
- Suction flow rate vs. supply pressure graph
- Air consumption vs. supply pressure graph

**Flow Rate Characteristics**

- Suction flow rate vs. supply pressure graph
- Vacuum pressure vs. suction flow rate graph

**Time to Reach Vacuum**

- Tank capacity: 1L
- Supply pressure: 0.4 MPa

**<How to Read the Graph>**

The graphics 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.

**<How to Read the Graph>**

The flow rate characteristics indicate the relationship between the vacuum pressure and the suction flow rate of the ejector, and show that when the suction flow rate changes the vacuum pressure also changes. In general, this indicates the relationship at the ejector's standard operating pressure. In the graph, Pmax indicates the maximum vacuum pressure, and Qmax indicates the maximum suction flow rate. These are the values that are published as specifications in catalogs, etc. Changes in vacuum pressure are explained below.

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 increases 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.
**ZL112 Series**

**Construction**

Without valve

With valve

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

#### Table 1. How to order connector assembly

- **For DC**
  - SY100-30-4A
- **For 100 VAC**
  - SY100-30-1A
- **For other AC**
  - SY100-30-3A

**Lead wire length**

- **Nil** 300mm (Standard)
- 6 600mm
- 10 1000mm
- 15 1500mm
- 20 2000mm
- 25 2500mm
- 30 3000mm
- 50 5000mm
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

Air pressure supply (P) port
Vacuum (V) port

Applicable tubing O.D. 6
Applicable tubing O.D. 12

4 x M4 x 0.7 Thread depth 8
(Mounting hole)

ZK2
ZQ
ZR
ZB
ZA
ZX
ZM
ZL
ZH
ZHP
ZU
VQD-V

SMC
ZL112 Series

Dimensions: ZL112 Series (With Valve)

With supply valve and release valve
ZL112-K1\L\D

Circuit diagram

release valve
supply valve

Release flow adjusting needle

Air pressure supply port (P)
Applicable tubing O.D. 6

Vacuum port (V)
Applicable tubing O.D. 12

2 x ø5.4 Mounting hole

Exhaust port

Digital vacuum pressure switch

Dimensions: ZL112 Series (With Valve)

With supply valve
ZL112-K2\L\D

Circuit diagram

Blanking plate assembly
(SYJ500-10-3A)

Supply valve

Digital pressure switch for vacuum

4 x M4 x 0.7
Thread depth 8 (For mounting)
**Multistage Ejector**

**ZL212 Series**

### How to Order

**ZL2 12**

- **Nozzle diameter**: 1.2
- **Exhaust specifications**: None
  - Built-in silencer: Nil
  - Port exhaust: P

### Lead wire specifications

(Applicable only when the vacuum pressure sensor specification is “D” for digital pressure switch for vacuum)

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

*This is not available for models without lead wires.*

### Unit specifications

(Applicable only when the vacuum pressure sensor specification is “D” for digital pressure switch for vacuum)

- **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

(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

### Weight

- **ZL212**: 700 g
- **Port exhaust**: +300 g
- **Digital pressure switch for vacuum (Excluding lead wire)**: +43 g
- **Digital pressure switch for vacuum (Including 3 cores lead wire)**: +81 g
- **Digital pressure switch for vacuum (Including 4 cores lead wire)**: +85 g
- **Valve (per 1 pc.)**: +45 g
ZL212 Series

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

ZL212

Exhaust Characteristics

<table>
<thead>
<tr>
<th>Tank capacity: 1L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply pressure: 0.4 MPa</td>
</tr>
</tbody>
</table>

Flow Rate Characteristics

Supply pressure: 0.4 MPa

Time to Reach Vacuum

Tank capacity: 1L

Supply pressure: 0.4 MPa

How to Read the Graph

The flow rate characteristics indicate the relationship between the vacuum pressure and the suction flow rate of the ejector, and show that when the suction flow rate changes the vacuum pressure also changes. In general, this indicates the relationship at the ejector's standard operating pressure. In the graph, Pmax indicates the maximum vacuum pressure, and Qmax indicates the maximum suction flow rate. These are the values that are published as specifications in catalogs, etc. Changes in vacuum pressure are explained below.

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The graphics 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.

Construction

Component Parts

<table>
<thead>
<tr>
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<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>
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<td>Nozzle</td>
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<td>Diffuser</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Detent plug</td>
<td>Other than vacuum switch</td>
</tr>
<tr>
<td></td>
<td>Lead wire cover</td>
<td>Vacuum switch specifications</td>
</tr>
</tbody>
</table>

Replacement Parts

<table>
<thead>
<tr>
<th>No.</th>
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<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 (without gauge)

ZSE30A (with gauge)
ZL Series
Made to Order Specifications
Please contact SMC for detailed specifications, dimensions and lead times.

1 With Supply and Release Valves

ZL212 | Supply valve: SYJ714- | Manual override

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

Approx. (300)

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.

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**Operating Environment**

**Caution**

1. Avoid use exposed to direct sunlight.

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**Solenoid Valves (ZL112 Series)**

**Caution**

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