Ejector Valve Unit

Series ZYY/ZYX

Nozzle diameter: ø0.7, ø1.0
Type S: Standard type
L: Large flow type

Ejectors and solenoid valves can be mounted on the same manifold.
Centralized wiring of ejector
(ZYX3000: Individual pressure switch not included)

Series ZYX3000
(Solenoid valve: SX3000)

Series ZYY3000
(Solenoid valve: SY3000)
# How to Order Ejector Valves for ZYY3000

## Ejector Valve Unit

### Series ZYY/ZYX

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<th>Specification</th>
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</tr>
<tr>
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<td>Connector type</td>
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<td><strong>Light/Surge voltage suppressor</strong></td>
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</tr>
<tr>
<td></td>
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</tr>
<tr>
<td><strong>Silencer</strong></td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>With silencer</td>
</tr>
<tr>
<td><strong>Max. vacuum pressure</strong></td>
<td>S –84 kPa</td>
</tr>
<tr>
<td></td>
<td>L –53 kPa</td>
</tr>
<tr>
<td><strong>Manual override</strong></td>
<td>Non-locking push type</td>
</tr>
<tr>
<td></td>
<td>Push-turn locking slotted type</td>
</tr>
<tr>
<td></td>
<td>Push-turn locking lever type</td>
</tr>
</tbody>
</table>

### Output specifications (Vacuum pressure switch)

- 14: NPN open collector 1 output, without analog output, 3 turn setting
- 15: NPN open collector 1 output, without analog output, 200 degree setting
- 16: NPN open collector 2 outputs, without analog output, 3 turn setting
- 17: NPN open collector 2 outputs, without analog output, 200 degree setting
- 18: NPN open collector 1 output, with analog output, 3 turn setting
- 19: NPN open collector 1 output, with analog output, 200 degree setting
- 55: PNP open collector 1 output, without analog output, 200 degree setting

### Lead wire/Voltage suppressor specifications

- LOU: Connector box type

### Wiring specifications

- Grommet type
- Lead wire length 0.6 m
- Lead wire length 3 m
- Connector type

### Electrical entry

24, 12, 6, 5, 3 VDC/100, 110, 200, 220 VAC

- G: Grommet
- H: Lead wire length 600 mm
- L: Lead wire length 600 mm
- LN: With lead wires (Length 300 mm)
- LO: Without lead wires
- M: Without connector
- MN: Without connector

### Light/Surge voltage suppressor

- Nil: Without light/surge voltage suppressor
- S: With surge voltage suppressor
- Z: With surge voltage suppressor (Non-polar type)
- R: With surge voltage suppressor (Non-polar type)

### Manual override

- Nil: Non-locking push type
- D: Push-turn locking slotted type
- E: Push-turn locking lever type

**Note:** The connector box type and serial transmission type are only available with 5 (24 VDC).
### How to Order Ejector Valves for ZYX3000

**Ejector Valve Unit Series ZYY/ZYX**

**Rated voltage**
- DC specifications
  - V: 24 VDC
  - 6: 12 VDC
  - V: 6 VDC
  - 5: 5 VDC
  - R: 3 VDC

**Common specifications**
- Nil: Positive common
- N: Negative common

**Electrical entry**
- G: Grommet
- L: Lead wire length 300 mm
- V: Lead wire length 600 mm
- LN: Without lead wires (Length 300 mm)
- LO: Without connector
- M: With lead wires (Length 300 mm)
- MO: Without lead wires

**Light/Surge voltage suppressor**
- Nil: Without light/surge voltage suppressor
- S: With surge voltage suppressor
- Z: With light/surge voltage suppressor

**Manual override**
- Nil: Non-locking push type
- D: Push-turn locking slotted type

**Output specifications**
- NPN open collector 1 output, without analog output, 3 turn setting
- NPN open collector 1 output, without analog output, 200 degree setting
- NPN open collector 2 outputs, without analog output, 3 turn setting
- NPN open collector 2 outputs, without analog output, 200 degree setting
- NPN open collector 1 output, with analog output, 3 turn setting
- NPN open collector 1 output, with analog output, 200 degree setting
- PNP open collector 1 output, with analog output, 200 degree setting

**Plug-in/Non plug-in type**
- Nil: Plug-in type
- F: Non plug-in type

**Manifold block**
- Nil: With manifold block
- MN: None

**Silencer**
- Nil: None
- E: With vacuum pressure switch

**Max. vacuum pressure**
- S: –84 kPa
- L: –53 kPa

**Nozzle diameter**
- 07: 0.7
- 10: 1.0

---

**Lead wire/ Voltage suppressor specifications**
- LOZ: Plug-in type
- Serial transmission type

**Wiring specifications (Vacuum pressure switch)**
- Grommet type
- Lead wire length 0.6 m
- Connector type
- Lead wire length 3 m

---

**Note**
1) The symbol is “Nil” for the single grommet type and when not equipped with light/surge voltage suppressor.
2) Match with the common specification of the manifold.

---

**For types LN and MN, the single solenoid has 2 sockets and the double solenoid has 3 sockets.**
How to Order Manifold Valves for ZYY3000/ZYX3000 (Split Base/DIN Rail Mounting)

For solenoid valve and ejector valve combination

For solenoid valve and ejector valve combination

**SS5**

Y3 X3 - 45 [Diagram]

**SY3000/SX3000**

Same as ordering manifold.

However, *(optional DIN rail)* is a special order specification.

**ZZY**

Y3 X3 - 45 [Diagram]

Change to ZZY

**Ejector valve numbers**

With ejector

Number of ejectors 1 to 10

Ejector mounting position

U U side

D D side

Enter the following together with the manifold number:

1. Part no. of solenoid for SY3000/SX3000
2. Part no. of ejector valve for ZYY3000/ZYX3000.

[Example: When individual wiring type model 45 for SY3000 is selected]

ZYY Y3-45-04D-C6- J1U 1SET

SY3000 manifold model

Ejector valve numbers

SX3000-75-1A 1SET
SY3140-5LZ 1SET
SY3240-5LZ 1SET
ZYY35LZ-10S-E15C 1SET

* is the symbol for a built-in assembly. Add the * symbol at the beginning of part numbers for solenoid valves, etc. to be mounted, and enter these together in order from the D side.

* When ordering manifold valve components individually without adding the * symbol, add -MN at the end of the ejector valve numbers.

Note 1) Varies according to the total number of solenoid valve and ejector valve stations. Refer to pages 1074 to 1095 for the Manifold Valve Specification Sheet.

**For ejector valves only**

(Without solenoid valves: individual wiring type is compliant only.)

ZZY – J 1 U

With ejector

Number of ejectors 1 to 10

Example) ZYY-J3U 1SET
* ZYY35MZ-10S1-E15C 2SETS
* ZYY35MZ-10S1 1SET
Ejector Valve Unit  Series ZYY/ZYX

Series SY3000/SX3000 in manifold/split base combinations DIN rail mount type can be mounted

Compact (integrated construction of ejector and valve)
Copper-free and fluorine-free measures implemented

### Ejector Valve Specifications

<table>
<thead>
<tr>
<th>Valve model</th>
<th>Nozzle diameter (mm)</th>
<th>Max. suction flow rate N (L/min (ANR))</th>
<th>Max. vacuum pressure (kPa)</th>
<th>Maximum operating pressure</th>
<th>Standard supply pressure</th>
<th>Operating temperature range</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZY3Y3000-07S</td>
<td>0.7</td>
<td>11</td>
<td>−84</td>
<td>0.6</td>
<td>0.45</td>
<td>5 to 50°C</td>
</tr>
<tr>
<td>ZY3Y3000-07L</td>
<td>0.7</td>
<td>18</td>
<td>−53</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZY3Y3000-10S</td>
<td>1.0</td>
<td>22</td>
<td>−84</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZY3Y3000-10L</td>
<td>1.0</td>
<td>32</td>
<td>−53</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Valve type: Pilot type 3 position 3 port solenoid valve
Type of actuation: Closed center
Fluid: Air
Operating pressure range: 0.2 to 0.6 MPa
Ambient and fluid temperature: 5 to 50°C
Allowable voltage fluctuation: −10 to +10%
Electrical entry: Grommet: G, H, L plug connector: L, LN, LO
M plug connector: M, MN, MO
Power consumption: 0.5 W (With indicator light: 0.6 W): Series ZYY3000
0.6 W (With indicator light: 0.65 W): Series ZXY3000
Effective area (Cv factor): 4.68 mm² (0.26)

### Supply/Release Valve Specifications

<table>
<thead>
<tr>
<th>Valve type</th>
<th>Fluid</th>
<th>Operating pressure range</th>
<th>Ambient and fluid temperature</th>
<th>Allowable voltage fluctuation</th>
<th>Electrical entry</th>
<th>Power consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZK2</td>
<td>Air</td>
<td>0.2 to 0.6 MPa</td>
<td>5 to 50°C</td>
<td>−10 to +10%</td>
<td>Grommet: G, H M</td>
<td>0.5 W (With indicator light: 0.6 W): Series ZYY3000</td>
</tr>
<tr>
<td>ZQ</td>
<td>Air</td>
<td>0.2 to 0.6 MPa</td>
<td>5 to 50°C</td>
<td>−10 to +10%</td>
<td>Grommet: G, H M</td>
<td>0.6 W (With indicator light: 0.65 W): Series ZXY3000</td>
</tr>
<tr>
<td>ZR</td>
<td>Air</td>
<td>0.2 to 0.6 MPa</td>
<td>5 to 50°C</td>
<td>−10 to +10%</td>
<td>Grommet: G, H M</td>
<td>0.5 W (With indicator light: 0.6 W): Series ZYY3000</td>
</tr>
<tr>
<td>ZA</td>
<td>Air</td>
<td>0.2 to 0.6 MPa</td>
<td>5 to 50°C</td>
<td>−10 to +10%</td>
<td>Grommet: G, H M</td>
<td>0.6 W (With indicator light: 0.65 W): Series ZXY3000</td>
</tr>
<tr>
<td>ZX</td>
<td>Air</td>
<td>0.2 to 0.6 MPa</td>
<td>5 to 50°C</td>
<td>−10 to +10%</td>
<td>Grommet: G, H M</td>
<td>0.5 W (With indicator light: 0.6 W): Series ZYY3000</td>
</tr>
<tr>
<td>ZM</td>
<td>Air</td>
<td>0.2 to 0.6 MPa</td>
<td>5 to 50°C</td>
<td>−10 to +10%</td>
<td>Grommet: G, H M</td>
<td>0.6 W (With indicator light: 0.65 W): Series ZXY3000</td>
</tr>
<tr>
<td>ZMA</td>
<td>Air</td>
<td>0.2 to 0.6 MPa</td>
<td>5 to 50°C</td>
<td>−10 to +10%</td>
<td>Grommet: G, H M</td>
<td>0.5 W (With indicator light: 0.6 W): Series ZYY3000</td>
</tr>
<tr>
<td>ZL</td>
<td>Air</td>
<td>0.2 to 0.6 MPa</td>
<td>5 to 50°C</td>
<td>−10 to +10%</td>
<td>Grommet: G, H M</td>
<td>0.6 W (With indicator light: 0.65 W): Series ZXY3000</td>
</tr>
<tr>
<td>ZH</td>
<td>Air</td>
<td>0.2 to 0.6 MPa</td>
<td>5 to 50°C</td>
<td>−10 to +10%</td>
<td>Grommet: G, H M</td>
<td>0.5 W (With indicator light: 0.6 W): Series ZYY3000</td>
</tr>
<tr>
<td>ZU</td>
<td>Air</td>
<td>0.2 to 0.6 MPa</td>
<td>5 to 50°C</td>
<td>−10 to +10%</td>
<td>Grommet: G, H M</td>
<td>0.6 W (With indicator light: 0.65 W): Series ZXY3000</td>
</tr>
<tr>
<td>ZYY</td>
<td>Air</td>
<td>0.2 to 0.6 MPa</td>
<td>5 to 50°C</td>
<td>−10 to +10%</td>
<td>Grommet: G, H M</td>
<td>0.5 W (With indicator light: 0.6 W): Series ZYY3000</td>
</tr>
<tr>
<td>ZYX</td>
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<td>0.2 to 0.6 MPa</td>
<td>5 to 50°C</td>
<td>−10 to +10%</td>
<td>Grommet: G, H M</td>
<td>0.6 W (With indicator light: 0.65 W): Series ZXY3000</td>
</tr>
</tbody>
</table>

Compact (integrated construction of ejector and valve)
Copper-free and fluorine-free measures implemented
### Electronic Vacuum Pressure Switch Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>ZSE1–00–14</th>
<th>ZSE1–00–15</th>
<th>ZSE1–00–16</th>
<th>ZSE1–00–17</th>
<th>ZSE1–00–18</th>
<th>ZSE1–00–19</th>
<th>ZSE1–00–55</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensor type</td>
<td>Diffusion type semiconductor pressure sensor</td>
<td>0 to –101 kPa</td>
<td>1 to –10% of set pressure (Adjustable)</td>
<td>±3% full span or less</td>
<td>±1% full span or less</td>
<td>1 to –10% of set pressure (Adjustable)</td>
<td>±3% full span or less</td>
</tr>
<tr>
<td>Hysteresis</td>
<td>1 to –10% of set pressure (Adjustable)</td>
<td>3% full span or less (Fixed)</td>
<td>1 to –10% of set pressure (Adjustable)</td>
<td>±3% full span or less</td>
<td>±1% full span or less</td>
<td>1 to –10% of set pressure (Adjustable)</td>
<td>±3% full span or less</td>
</tr>
<tr>
<td>Repeatability</td>
<td>±1% full span or less</td>
<td>3% full span or less (Fixed)</td>
<td>±3% full span or less</td>
<td>±1% full span or less</td>
<td>3% full span or less (Fixed)</td>
<td>±3% full span or less</td>
<td>±1% full span or less</td>
</tr>
<tr>
<td>Temperature characteristics</td>
<td>12 to 24 VDC (Ripple ±10% or less)</td>
<td>NPN open collector 30 V Max. 80 mA</td>
<td>PNP open collector Max. 80 mA</td>
<td>NPN open collector 30 V Max. 80 mA</td>
<td>PNP open collector Max. 80 mA</td>
<td>NPN open collector 30 V Max. 80 mA</td>
<td>PNP open collector Max. 80 mA</td>
</tr>
<tr>
<td>ON-OFF output</td>
<td>None</td>
<td>1 point</td>
<td>2 point</td>
<td>1 point</td>
<td>1 point</td>
<td>1 point</td>
<td>1 point</td>
</tr>
<tr>
<td>Setting points</td>
<td>1 point</td>
<td>1 point</td>
<td>2 point</td>
<td>1 point</td>
<td>2 point</td>
<td>1 point</td>
<td>1 point</td>
</tr>
<tr>
<td>Operation indicator light</td>
<td>Lights up when ON (Red)</td>
<td>Lights up when ON (OUT1: Red, OUT2: Green)</td>
<td>Lights up when ON (Red)</td>
<td>Lights up when ON (OUT1: Red, OUT2: Green)</td>
<td>Lights up when ON (Red)</td>
<td>Lights up when ON (RED)</td>
<td>Lights up when ON (RED)</td>
</tr>
<tr>
<td>Setting trimmer rotation angle</td>
<td>3 turns</td>
<td>3 turns</td>
<td>3 turns</td>
<td>3 turns</td>
<td>200 degrees</td>
<td>200 degrees</td>
<td>200 degrees</td>
</tr>
<tr>
<td>Current consumption</td>
<td>17 mA or less (When 24 VDC is ON)</td>
<td>25 mA or less (When 24 VDC is ON)</td>
<td>17 mA or less (When 24 VDC is ON)</td>
<td>25 mA or less (When 24 VDC is ON)</td>
<td>17 mA or less (When 24 VDC is ON)</td>
<td>25 mA or less (When 24 VDC is ON)</td>
<td>17 mA or less (When 24 VDC is ON)</td>
</tr>
<tr>
<td>Max. operating pressure</td>
<td>0.2 MPa</td>
<td>0.2 MPa</td>
<td>0.2 MPa</td>
<td>0.2 MPa</td>
<td>0.2 MPa</td>
<td>0.2 MPa</td>
<td>0.2 MPa</td>
</tr>
</tbody>
</table>

Note 1) When using an ejector, there is no problem if pressure of 0.5 MPa is applied for 1 second or less.
Note 2) X129 is for Series ZYX3000 and X130 is for Series ZYY3000.
Note 3) For details about wiring, refer to the Operation Manual that can be downloaded from SMC website (http://www.smcworld.com).
How to Set the Pressure

- The ON pressure is set with the pressure setting trimmer. High vacuum settings are obtained by turning it clockwise.
- When setting, use a flat head screwdriver which fits the slot in the trimmer, and turn it gently with your finger tips.

ZSE1□□-14/-15/-18/-19
- Hysteresis can be set using the hysteresis setting trimmer. The setting is increased by turning it clockwise, and the range is 1 to 10% of the ON pressure.
- When the hysteresis setting trimmer is moved after setting the ON pressure, it must be set again.

ZSE1□□-16/-17
- OUT1 (white lead wire, red LED) can be set with pressure setting trimmer 1 (SET1).
- OUT2 (green lead wire, green LED) can be set with pressure setting trimmer 2 (SET2).

When using to confirm adsorption, set to the minimum vacuum pressure at which adsorption is possible. If set below this valve, the switch will turn ON even when adsorption has failed or is insufficient. Also take note that if the setting is too high, the switch may not turn ON even with good adsorption.

How to Use the Connector

1. Attaching and detaching connectors
- To install the connector, hold the lever and connector unit between your fingers and insert it straight onto the pins. Then lock it by pressing the pawl of the lever into the slot on the housing.
- To remove the connector, pull it straight out while pressing the lever down with your thumb to release the pawl from the slot.

2. Crimping of lead wire and socket
Strip 3.2 to 3.7 mm at the end of the wire, place the exposed core wire into the socket properly and crimp with a crimping tool. When this is done, be sure that the lead wire covering does not get into the core wire crimping area. (Crimping tool: Model DXT170-75-1)

3. Attaching and detaching of socket to connector with lead wire
- Attaching
Insert the sockets into the square holes of the connector (with +, 1, 2, – indication), and continue to push the sockets all the way in until they lock by hooking into the seats in the connector. (When they are pushed in their hooks open and they are locked automatically.) Then confirm that they are locked by pulling lightly on the lead wires.
- Detaching
To detach a socket from a connector, pull out the lead wire while pressing the socket’s hook with a stick having a thin tip (about 1 mm). If the socket will be used again, first spread the hook outward.

Hysteresis
Hysteresis is the difference between the pressure at which the output signal turns ON and the pressure at which it turns OFF. It turns ON at the set pressure.
**Construction**

**ZYY3000**

**Component Parts**

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Material</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Manifold block</td>
<td>Resin</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Body</td>
<td>Zinc die-cast</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Silencer cover</td>
<td>Resin</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Nozzle</td>
<td>Aluminum alloy</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Diffuser</td>
<td>Aluminum alloy</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Needle</td>
<td>Stainless steel</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Spool</td>
<td>Aluminum alloy</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Piston</td>
<td>Resin</td>
<td></td>
</tr>
</tbody>
</table>

**Replacement Parts**

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Part no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>3 port solenoid valve</td>
<td>SY114-...</td>
</tr>
<tr>
<td>10</td>
<td>Vacuum pressure switch</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>End plate assembly</td>
<td>For without a switch</td>
</tr>
<tr>
<td>12</td>
<td>Silencer</td>
<td>AN15-C08</td>
</tr>
<tr>
<td>13</td>
<td>Non plug assembly</td>
<td>ZYY3000-NPA</td>
</tr>
</tbody>
</table>
Construction

**Ejector Valve Unit Series ZYY/ZYX**

**ZYX3000**

---

**Component Parts**

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Material</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Manifold block</td>
<td>Resin</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Body</td>
<td>Zinc die-casted</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Silencer cover</td>
<td>Resin</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Nozzle</td>
<td>Aluminum alloy</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Diffuser</td>
<td>Aluminum alloy</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Needle</td>
<td>Stainless steel</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Spool</td>
<td>Aluminum alloy</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Piston</td>
<td>Resin</td>
<td></td>
</tr>
</tbody>
</table>

**Replacement Parts**

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Part no.</th>
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</thead>
<tbody>
<tr>
<td>9</td>
<td>Vacuum pressure switch</td>
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<tr>
<td>10</td>
<td>End plate assembly</td>
<td>For without a switch</td>
</tr>
<tr>
<td>11</td>
<td>Silencer</td>
<td>AN15-C08</td>
</tr>
<tr>
<td>12</td>
<td>Plug assembly</td>
<td>ZYY3000-PA</td>
</tr>
</tbody>
</table>
Exhaust Characteristics/Flow Characteristics

The flow rate characteristics correspond to a supply pressure of 0.45 MPa.

**ZYX³**

<table>
<thead>
<tr>
<th>Series</th>
<th>Exhaust Characteristics</th>
<th>Flow Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZYX³-07S</td>
<td><img src="image1" alt="Exhaust Characteristics" /></td>
<td><img src="image2" alt="Flow Characteristics" /></td>
</tr>
<tr>
<td>ZYX³-10S</td>
<td><img src="image3" alt="Exhaust Characteristics" /></td>
<td><img src="image4" alt="Flow Characteristics" /></td>
</tr>
<tr>
<td>ZYX³-07L</td>
<td><img src="image5" alt="Exhaust Characteristics" /></td>
<td><img src="image6" alt="Flow Characteristics" /></td>
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<tr>
<td>ZYX³-10L</td>
<td><img src="image7" alt="Exhaust Characteristics" /></td>
<td><img src="image8" alt="Flow Characteristics" /></td>
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</tbody>
</table>

**How to Read Flow Characteristics 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. The methods for changing the vacuum pressure will be explained in order.

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 gradually and air is allowed to flow (the air leaks), the inlet 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).

In this way, when the suction flow rate changes the vacuum pressure also changes. In other words, when there is no leakage at the vacuum port (vacuum piping), the vacuum pressure increases to the maximum, but the vacuum pressure drops as the amount of leakage increases, and when the amount of leakage and the maximum suction flow rate become equal, the vacuum pressure decreases nearly to “0”. When adsorbing workpieces which are permeable or subject to leakage, etc., caution is required as the vacuum pressure will not be very high.
Ejector Valve Dimensions

ZYY3□LZ-□-□1-E□C

Circuit diagram

ZYY3□LZ-□-□1-S1 (Specifications without vacuum switch)
Ejector Valve Dimensions

ZYY3□LZ-□□□□1-E□□C-MN

Circuit diagram

Accessory (packed together)
1. Silencer (AN15-C□□□□1 pc.)
2. Mounting bolt nut (M2 x 0.4 x 20--4 pcs.)
Ejector Valve Dimensions

ZYX3□LOZ-□□□S1 (Specifications without vacuum switch)

- Ejector Valve Unit Series ZYY/ZYX
- Vacuum switch (With analog output)
- Vacuum switch (Without analog output)
- Silencer
- Supply/Release valve
- Release flow rate adjusting needle
- Ejector unit
- Vacuum port
- Pilot valve exhaust port
- Button for block separation
- Pressure setting trimmer
- Hysteresis setting trimmer
- Manual override
- End plate
- Indicator light (Red)
- Release flow rate adjusting needle
- Air pressure supply port
- (8.25) (13.5)
- (5.25)
- (13.5)
Ejector Valve Dimensions

ZYX3□L-□S-E□C-F

Circuit diagram

1068
**Ejector Valve Unit Series ZYY/ZYX**

**Ejector Valve Dimensions**

**ZYX3□□□S1-E□□C-FMN**

---

**Circuit diagram**

**Accessory (packed together)**

1. Silencer (AN15-C08···1 pc)
2. Mounting bolt nut (M2 x 0.4 x 25···4 pcs.)
Series ZYY/ZYX

Ejector Valve Dimensions

ZYX3□L-□S1-E□C-MN

Circuit diagram

Accessory (packed together)
1. Silencer (AN15-C08···1 pc)
2. Mounting bolt nut (M2 x 0.4 x 25···4 pcs.)
Ejector Valve Dimensions

ZYY3000-PA (Plug-in assembly)

ZYY3000-NPA (Non plug-in assembly)
The length of the standard accessory DIN rail is calculated with the formula below.

Manifold overall length (L3) = (27 x Number of ejector valve stations) + (10.5 x Number of solenoid valve stations) + (16.5 x Number of supply/exhaust block stations) + C1 [mm]

Note) In the case of ejector valves only (without solenoid valves), calculate the number of solenoid valve stations and supply/exhaust block stations as “0”.

Number of mounting holes (N) = (L3/12.5 + 1): Decimal fractions are truncated

DIN rail overall length (L1) = N x 12.5 + 23 [mm]

Mounting screw length (L2) = L1 – 10.5 [mm]

Rail length on one side (L4) = (L1 – L3)/2 [mm]

### C1 Value Selection

<table>
<thead>
<tr>
<th>Separate wiring type</th>
<th>45</th>
<th>33</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector box type</td>
<td>45F</td>
<td>86</td>
</tr>
<tr>
<td>D-sub connector 25 pin type</td>
<td>45</td>
<td>54</td>
</tr>
<tr>
<td>Flat cable type</td>
<td>45T</td>
<td></td>
</tr>
<tr>
<td>Terminal block 9 pole type</td>
<td>45S</td>
<td>75</td>
</tr>
<tr>
<td>Terminal block 18 pole type</td>
<td>45S2</td>
<td>132</td>
</tr>
<tr>
<td>Serial transmission type</td>
<td>45S3</td>
<td>126</td>
</tr>
</tbody>
</table>

### Indication example

In the case of

- ZYY3-4504D-C6
- SY3140-5LZ
- SY3240-5LZ
- SY3340-5LZ
- ZYY35LZ-10S-E15C

the dimensions are

- L1 = 135.5 mm
- L2 = 125 mm
- L3 = 108 mm
- L4 = 13.75 mm
Please copy this form and use it. (Do not detach this page.)

ZYY3000 Individual Wiring Type
DIN rail manifold

Manifold Valve Specification Sheet

Fill in the blanks in the order from ① to ④.

**1 Manifold Model**

Fill in the blanks below with the symbols for required specifications.

**ZZYY3-45**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Stations</th>
<th>Mounting position</th>
</tr>
</thead>
<tbody>
<tr>
<td>W</td>
<td>02</td>
<td>U side</td>
</tr>
<tr>
<td>U</td>
<td>02</td>
<td>D side</td>
</tr>
<tr>
<td>B</td>
<td>20</td>
<td>Both sides</td>
</tr>
<tr>
<td>M</td>
<td>20</td>
<td>Special specifications</td>
</tr>
</tbody>
</table>

**SUP/EXH block assembly mounting position**

Symbol: U, R

Applicable stations: 2 to 10 stations

The number of blanking plate assembly is included.

**Ejector mounting position**

Symbol: U, D

Mounting position: U side, D side

Number of ejector stations: 1 to 10 stations

**A. B port size (valve only)**

Symbol: C4, C6, M

Specifications:

- C4: One-touch fitting for ø4
- C6: One-touch fitting for ø6
- M: Mixed size

For special specifications, refer to the Stations Table on the next page.

**2 Ejector Valve Model**

Fill in the blanks below with the symbols for required specifications.

**ZYY3**

<table>
<thead>
<tr>
<th>Rated voltage</th>
<th>DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>24 VDC</td>
</tr>
<tr>
<td>6</td>
<td>12 VDC</td>
</tr>
<tr>
<td>V</td>
<td>6 VDC</td>
</tr>
<tr>
<td>S</td>
<td>5 VDC</td>
</tr>
<tr>
<td>R</td>
<td>3 VDC</td>
</tr>
</tbody>
</table>

**AC (50/60 Hz)**

| 1   | 100 VAC |
| 2   | 200 VAC |
| 3   | 110 VAC (115 V) |
| 4   | 220 VAC (230 V) |

<table>
<thead>
<tr>
<th>Electrical entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
</tr>
<tr>
<td>H</td>
</tr>
<tr>
<td>L</td>
</tr>
<tr>
<td>LN</td>
</tr>
<tr>
<td>LO</td>
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<tr>
<td>M</td>
</tr>
<tr>
<td>MN</td>
</tr>
<tr>
<td>MO</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Light/Surge voltage suppressor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
</tr>
<tr>
<td>S</td>
</tr>
<tr>
<td>Z</td>
</tr>
<tr>
<td>R</td>
</tr>
<tr>
<td>U</td>
</tr>
</tbody>
</table>

**Note:**

- U, R: 24 VDC only.
- Since surge voltage is prevented with a rectifier in the case of AC, there is no type “S”.

| Nozzle diameter | ø0.7 mm |
|-----------------| 0.1 mm  |

<table>
<thead>
<tr>
<th>Max. vacuum pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
</tr>
<tr>
<td>L</td>
</tr>
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<table>
<thead>
<tr>
<th>Silencer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
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<tr>
<td>1</td>
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</table>

<table>
<thead>
<tr>
<th>Vacuum switch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
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<tr>
<td>E</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manual override</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
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<tr>
<td>D</td>
</tr>
<tr>
<td>E</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Output specifications (Vacuum switch)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
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<tr>
<td>15</td>
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<td>16</td>
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<td>17</td>
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<td>18</td>
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<tr>
<td>19</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Wiring specifications (Vacuum switch)</th>
</tr>
</thead>
<tbody>
<tr>
<td>55</td>
</tr>
<tr>
<td>L</td>
</tr>
<tr>
<td>C</td>
</tr>
<tr>
<td>CL</td>
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<tr>
<td>CN</td>
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<table>
<thead>
<tr>
<th>Manifold block</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Ejector/Valve stations layout (Special specifications)</th>
</tr>
</thead>
<tbody>
<tr>
<td>U side: 1 to 10 stations</td>
</tr>
<tr>
<td>D side: 1 to 10 stations</td>
</tr>
</tbody>
</table>

(Up to a total of 20 stations)
Valve Model

Fill in the blanks below with the symbols for required specifications.

SY3  *  40  *

Valve stations or Layout

<table>
<thead>
<tr>
<th>Valve stations or Layout</th>
<th>20</th>
<th>19</th>
<th>18</th>
<th>17</th>
<th>16</th>
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<tbody>
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<td>Non-plug assembly</td>
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</tbody>
</table>

Note) Non-plug assembly: ZYY3000-NPA

- Blankling plate assembly: SX3000-75-1A
- SUP blocking disk: SX3000-77-1A
- EXH blocking disk: SX3000-77-1A (Two pieces used for one station)

For SMC Use Only

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Qty.</th>
<th>Model No.</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4 Stations Table

Put "*" at stations needed for the arrangement of ejectors, valves, etc.

| Valve stations or Layout | 20 | 19 | 18 | 17 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | Quantity |
|--------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
| With silencer            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Without silencer         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| With switch              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Without switch           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| With switch              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Without switch           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| With switch              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Without switch           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| With switch              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Without silencer         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Non-plug assembly        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

Note) Put down the model number and quantity of SUP/EXH block assemblies with the manifold model number when the mounting positions of SUP/EXH block assemblies are special specifications.
Please copy this form and use it. (Do not detach this page.)

ZYX3000 Individual Wiring Type
DIN rail manifold

Manifold Valve Specification Sheet

Company: 
Person in charge: 
Sheet No.: 
Order No.: 
Equipment: 
Quantity: Set: Date of delivery: 

Fill in the blanks in the order from ① to ④.

① Manifold Model

**Manifold Model**

Fill in the blanks below with the symbols for required specifications.

---

**ZZYX3-45**

Total number of ejector and valve stations

<table>
<thead>
<tr>
<th>U side</th>
<th>D side</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 to 10 stations</td>
<td>2 to 20 stations</td>
</tr>
</tbody>
</table>

Ejector/Valve stations layout (Special specifications)

For special specifications, specify using the Stations Table on the next page.

① Ejector mounting position

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Mounting position</th>
</tr>
</thead>
<tbody>
<tr>
<td>U</td>
<td>U side</td>
</tr>
<tr>
<td>D</td>
<td>D side</td>
</tr>
</tbody>
</table>

Number of ejector stations

1 to 10 stations

**SUP/EXH block assembly specifications**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>U</td>
<td>U side</td>
</tr>
<tr>
<td>D</td>
<td>D side</td>
</tr>
<tr>
<td>B</td>
<td>Both sides</td>
</tr>
<tr>
<td>M</td>
<td>Special specifications</td>
</tr>
</tbody>
</table>

**A, B port size (valve only)**

- Made to Order

**NPN open collector 1 output, without analog output, 3 turn setting**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>U</td>
<td>U side</td>
</tr>
<tr>
<td>D</td>
<td>D side</td>
</tr>
</tbody>
</table>

For ordering the mixed size, put C4 or C6 respectively instead of "√" in the Stations Table.

---

② Ejector Valve Model

Fill in the blanks below with the symbols for required specifications.

---

**XYZ3**

**Rated voltage**

<table>
<thead>
<tr>
<th>DC</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>24 VDC</td>
</tr>
<tr>
<td>6</td>
<td>12 VDC</td>
</tr>
<tr>
<td>S</td>
<td>6 VDC</td>
</tr>
<tr>
<td>R</td>
<td>3 VDC</td>
</tr>
</tbody>
</table>

**Electrical entry**

<table>
<thead>
<tr>
<th>G</th>
<th>Grommet (Lead wire length 300 mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>L plug (With lead wires)</td>
</tr>
<tr>
<td>LN</td>
<td>LN connector (With lead wires)</td>
</tr>
<tr>
<td>LO</td>
<td>LO without connector</td>
</tr>
<tr>
<td>M</td>
<td>M plug (With lead wires)</td>
</tr>
<tr>
<td>MN</td>
<td>MN without connector</td>
</tr>
</tbody>
</table>

**Light/Surge voltage suppressor**

- Nil: Without light/surge voltage suppressor
- S: With surge voltage suppressor

**Nozzle diameter**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>07</td>
<td>ø0.7 mm</td>
</tr>
<tr>
<td>10</td>
<td>ø1.0 mm</td>
</tr>
</tbody>
</table>

**Max. vacuum pressure**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>U</td>
<td>Nil</td>
</tr>
<tr>
<td>L</td>
<td>Nil</td>
</tr>
<tr>
<td>S</td>
<td>–84 kPa</td>
</tr>
<tr>
<td>L</td>
<td>–53 kPa</td>
</tr>
</tbody>
</table>

**Silencer**

- Nil: None
- D: With silencer

**Vacuum switch**

- Nil: None
- E: With vacuum switch

**Wiring specifications (Vacuum switch)**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>NPN open collector 1 output, without analog output, 3 turn setting</td>
</tr>
<tr>
<td>15</td>
<td>NPN open collector 2 outputs, without analog output, 3 turn setting</td>
</tr>
<tr>
<td>16</td>
<td>NPN open collector 2 outputs, without analog output, 3 turn setting</td>
</tr>
<tr>
<td>17</td>
<td>NPN open collector 2 outputs, without analog output, 3 turn setting</td>
</tr>
<tr>
<td>18</td>
<td>NPN open collector 2 outputs, without analog output, 3 turn setting</td>
</tr>
</tbody>
</table>

**Manifold type**

- Nil: Plug-in type
- F: Non plug-in type

**Manifold block**

- Nil: With manifold block
- MN: None

---

(Up to a total of 20 stations)

Ejector/Valve stations layout (Special specifications)

---

1076
# Valve Model

Fill in the blanks below with the symbols for required specifications.

Valve stations or Layout | 20 | 19 | 18 | 17 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | Quantity
With silencer | With switch | | | | | | | | | | | | | | | | | | | | |
Without silencer | Without switch | | | | | | | | | | | | | | | | | | | | |
With silencer | With switch | | | | | | | | | | | | | | | | | | | | |
Without silencer | Without switch | | | | | | | | | | | | | | | | | | | | |
With silencer | With switch | | | | | | | | | | | | | | | | | | | | |
Without silencer | Without switch | | | | | | | | | | | | | | | | | | | | |
With silencer | With switch | | | | | | | | | | | | | | | | | | | | |
Without silencer | Without switch | | | | | | | | | | | | | | | | | | | | |
With silencer | With switch | | | | | | | | | | | | | | | | | | | | |
Without silencer | Without switch | | | | | | | | | | | | | | | | | | | | |
With silencer | With switch | | | | | | | | | | | | | | | | | | | | |
Without silencer | Without switch | | | | | | | | | | | | | | | | | | | | |
With silencer | With switch | | | | | | | | | | | | | | | | | | | | |
Without silencer | Without switch | | | | | | | | | | | | | | | | | | | | |
With silencer | With switch | | | | | | | | | | | | | | | | | | | | |
Without silencer | Without switch | | | | | | | | | | | | | | | | | | | | |
With silencer | With switch | | | | | | | | | | | | | | | | | | | | |
Without silencer | Without switch | | | | | | | | | | | | | | | | | | | | |
With silencer | With switch | | | | | | | | | | | | | | | | | | | | |
Without silencer | Without switch | | | | | | | | | | | | | | | | | | | | |
With silencer | With switch | | | | | | | | | | | | | | | | | | | | |
Without silencer | Without switch | | | | | | | | | | | | | | | | | | | | |
With silencer | With switch | | | | | | | | | | | | | | | | | | | | |
Without silencer | Without switch | | | | | | | | | | | | | | | | | | | | |
With silencer | With switch | | | | | | | | | | | | | | | | | | | | |
Without silencer | Without switch | | | | | | | | | | | | | | | | | | | | |
With silencer | With switch | | | | | | | | | | | | | | | | | | | | |
Without silencer | Without switch | | | | | | | | | | | | | | | | | | | | |
**ZYX3000 Terminal Block (9 Pins)**

**Manifold Model**

Fill in the blanks below with the symbols for required specifications.

**ZYX3 – 45T**

- **Connector mounting position**
  - Symbol: U side, D side

- **Total number of ejector and valve stations**
  - Symbol: Stations
  - Note: U side, D side

- **SUP/EXH block assembly mounting position**
  - Symbol: U side, D side

- **SUP/EXH block assembly specifications**
  - Symbol: Specifications

**Ejector Valve Model**

Fill in the blanks below with the symbols for required specifications.

**ZYX3 LOZ**

- **Rated voltage**
  - 5: 24 VDC
  - 6: 12 VDC

- **Common specifications**
  - Nil: Positive common
  - Negative common

- **Manual override**
  - Nil: Non-locking push type
  - D: Push-locking slotted type

- **Nozzle diameter**
  - 07: ø0.7 mm
  - 10: ø1.0 mm

- **Max. vacuum pressure**
  - S: –84 kPa
  - L: –53 kPa

- **Silencer**
  - Nil: None
  - 1: With silencer

- **Vacuum switch**
  - Nil: None
  - E: With vacuum switch

- **Output specifications (Vacuum switch)**
  - 14: NPN open collector 1 output, without analog output, 3 turn setting
  - 15: NPN open collector 1 output, without analog output, 200 degree setting
  - 16: NPN open collector 2 outputs, without analog output, 3 turn setting
  - 17: NPN open collector 2 outputs, without analog output, 200 degree setting
  - 18: NPN open collector 1 output, with analog output, 3 turn setting
  - 19: NPN open collector 1 output, with analog output, 200 degree setting
  - 55: PNP open collector 1 output, without analog output, 200 degree setting

- **Wiring specifications (Vacuum switch)**
  - Nil: Grommet: Lead wire length 0.6 m
  - L: Connector type: Lead wire length 3 m
  - C: Connector type: Lead wire length 0.6 m

- **Manifold block**
  - MN: None

**(Up to a total of 7 stations)**

Ejector/Valve stations layout (Special specifications)
Valve Model

Fill in the blanks below with the symbols for required specifications.

SX3 * 40R - LOZ

Type of actuation

<table>
<thead>
<tr>
<th></th>
<th>2 position single solenoid</th>
<th>2 position double solenoid</th>
<th>3 position closed center</th>
<th>3 position exhaust center</th>
<th>3 position pressure center</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Rated voltage

<table>
<thead>
<tr>
<th></th>
<th>5</th>
<th>24 VDC</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>12 VDC</td>
<td></td>
</tr>
</tbody>
</table>

Match with the voltage specification of the manifold.

Common specifications

<table>
<thead>
<tr>
<th></th>
<th>Nil</th>
<th>Positive common</th>
<th>Negative common</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Match with the common specification of the manifold.

Manual override

<table>
<thead>
<tr>
<th></th>
<th>Nil</th>
<th>Non-locking push type</th>
<th>Push-locking slotted type</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Manual override

<table>
<thead>
<tr>
<th></th>
<th>D</th>
<th>Push-locking slotted type</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Stations Table

Put "C" at stations needed for the arrangement of ejectors, valves, etc. (For mixed sizes of A, B port size, put C4 or C6 in the row of ③.)

<table>
<thead>
<tr>
<th>Valve stations or Layout</th>
<th>7</th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>With silencer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Without silencer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

With switch

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

Without switch

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

Nozzle diameter 07

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

Nozzle diameter 10

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

A, B port size (Mixed specifications)

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

Plug-in assembly

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

2 position

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

Single solenoid

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

Double solenoid

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

Blanking plate assembly

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

SUP/EXH block assembly

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

SUP blocking disk

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

EXH blocking disk

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

Individual SUP spacer assembly

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

Individual EXH spacer assembly

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

Wiring specifications

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

Single wiring

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

Double wiring

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

Note: • Plug-in assembly: ZYY3000-PA

• Blanking plate assembly: SX3000-75-2A
• SUP blocking disk: SX3000-77-1A
• EXH blocking disk: SX3000-77-1A (Two pieces used for one station)
• Individual SUP spacer assembly: SX3000-38-3A
• Individual EXH spacer assembly: SX3000-39-3A
• SUP/EXH block assembly (R): SX3000-51-6A
• SUP/EXH block assembly (S): SX3000-51-7A
• SUP/EXH block assembly (RS): SX3000-51-8A

For SMC Use Only

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**ZYX3000 Terminal Block (18 Pins)**

**Manifold Valve Specification Sheet**

Fill in the blanks in the order from ① to ④.

**1. Manifold Model**

Fill in the blanks below with the symbols for required specifications.

**ZYX3 – 45T1**

**Connector mounting position**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Position</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>U</td>
<td>U side</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>D side</td>
<td></td>
</tr>
</tbody>
</table>

**Total number of ejector and valve stations**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Stations</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>02</td>
<td>2 stations</td>
<td></td>
</tr>
<tr>
<td>08</td>
<td>8 stations</td>
<td></td>
</tr>
<tr>
<td>09</td>
<td>9 stations</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>16 stations</td>
<td></td>
</tr>
</tbody>
</table>

**SUP/EXH block assembly mounting position**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Position</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>U</td>
<td>U side</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>D side</td>
<td></td>
</tr>
</tbody>
</table>

**Supplementary block assembly mounting position**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Position</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>U</td>
<td>U side</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>D side</td>
<td></td>
</tr>
</tbody>
</table>

**Number of ejector stations**

1 to 8 stations

2 to 10 stations

2 to 16 stations

Both sides

**Ejector mounting position**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Position</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>U side</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>D side</td>
<td></td>
</tr>
</tbody>
</table>

**Manifold block mounting position**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Position</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>U side</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>D side</td>
<td></td>
</tr>
</tbody>
</table>

**Output specifications (Vacuum switch)**

- NPN open collector 1 output, without analog output, 3 turn setting
- NPN open collector 1 output, without analog output, 200 degree setting
- NPN open collector 2 outputs, without analog output, 3 turn setting
- NPN open collector 2 outputs, without analog output, 200 degree setting
- PNP open collector 1 output, with analog output, 200 degree setting
- PNP open collector 1 output, with analog output, 200 degree setting

**Manifold block specification**

- Nil
- With manifold block

**Wiring specifications (Vacuum switch)**

- Nil
- Grommet
- L type
- L connector
- CL type
- Connector type

**2. Ejector Valve Model**

Fill in the blanks below with the symbols for required specifications.

**ZYX3**

**Rated voltage**

- 5: 24 VDC
- 6: 12 VDC

**Common specifications**

- Nil: Positive common
- N: Negative common

**Manual override**

- Nil: Non-locking push type
- D: Push-locking slotted type

**Nozzle diameter**

- 07: ø0.7 mm
- 10: ø1.0 mm

**Max. vacuum pressure**

- S: –84 kPa
- L: –53 kPa

**Silencer**

- Nil: None
- I: With silencer

**Vacuum switch**

- Nil: None
- E: With vacuum switch

**Output specifications (Vacuum switch)**

- Nil
- Grommet
- L type
- L connector
- CL type
- Connector type

**U side**

- 1
- 2
- 3

**D side**

- 4
- 5
- 6

**Note:** Connector block is not included in the stations and layout.
Valve Model

Valve stations or Layout | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | Quantity
With silencer With switch | 5 | 24 VDC | | | | | | | | | | | | | | | | | |
Without silencer Without switch | 6 | 12 VDC | | | | | | | | | | | | | | | | | |

Note) • Plug-in assembly: ZYY3000-PA
• Blanking plate assembly: SX3000-75-2A
• SUP blocking disk: SX3000-77-1A [Two pieces used for one station]
• EXH blocking disk: SX3000-77-1A (Two pieces used for one station)
• Individual SUP spacer assembly: SX3000-38-3A
• Individual EXH spacer assembly: SX3000-39-3A
• SUP/EXH block assembly (R): SX3000-51-6A
• SUP/EXH block assembly (S): SX3000-51-7A
• SUP/EXH block assembly (Standard): SX3000-51-2A
• SUP/EXH block assembly (RS): SX3000-51-8A

For SMC Use Only

Model No. | Qty. | Model No. | Qty. | Customer code | Date to issue in charge | Departmental code
---|---|---|---|---|---|---
| | | | | | | |
**Manifold Model**

Fill in the blanks below with the symbols for required specifications.

**Ejector Valve Model**

Fill in the blanks below with the symbols for required specifications.

---

**Common Specifications**

- **Nil**: Positive common
- **N**: Negative common

**Connector mounting position**

- **U**: U side
- **D**: D side

**Total number of ejector and valve stations**

- **01**: 1 station
- **02**: 2 stations
- **03**: 3 stations
- **04**: 4 stations
- **05**: 5 stations
- **06**: 6 stations
- **07**: 7 stations

**SUP/EXH block assembly mounting position**

- **U**: U side
- **D**: D side

**Supplementary block assembly specifications**

- **Nil**: Standard/external pilot specification
- **R**: External pilot specification
- **S**: Internal pilot/Built-in silencer
- **RS**: External pilot/Built-in silencer

**Supplementary block assembly specifications**

- **D**: Double wiring specification

**Number of ejector and valve stations**

- **Ejector mounting position**
  - **U**: U side
  - **D**: D side

**Voltage**

- **A**: 24 VDC
- **B**: 12 VDC

**A. B port size (valve only)**

- **C4**: One-touch fitting for ø4
- **C6**: One-touch fitting for ø6
- **M**: Mixed size

**Rated voltage**

- **5**: 24 VDC
- **6**: 12 VDC

**Nozzle diameter**

- **07**: ø0.7 mm
- **10**: ø1.0 mm

**Max. vacuum pressure**

- **S**: –84 kPa
- **L**: –53 kPa

**Silencer**

- **Nil**: None
- **I**: With silencer

**Vacuum switch**

- **Nil**: None
- **E**: With vacuum switch

**Output specifications (Vacuum switch)**

- **14**: NPN open collector 1 output, without analog output, 3 turn setting
- **15**: NPN open collector 1 output, without analog output, 200 degree setting
- **16**: NPN open collector 2 outputs, without analog output, 3 turn setting
- **17**: NPN open collector 2 outputs, without analog output, 200 degree setting
- **18**: NPN open collector 1 output, with analog output, 200 degree setting
- **19**: NPN open collector 1 output, with analog output, 200 degree setting
- **55**: PNP open collector 1 output, without analog output, 200 degree setting

**Manifold block**

- **Nil**: With manifold block
- **MN**: None

**Wiring specifications (Vacuum switch)**

- **Nil**: Grommet type
- **L**: Lead wire length 0.6 m
- **C**: Lead wire length 0.6 m
- **CL**: Connector type

**(Up to a total of 7 stations) Ejector/Valve stations layout (Special specifications)**

---

Note: Connector block is not included in the stations and layout.
Valve Model

Fill in the blanks below with the symbols for required specifications.

SX3*40R

A. Rated voltage

1. 2 position single solenoid
2. 2 position double solenoid
3. 3 position closed center
4. 3 position exhaust center
5. 3 position pressure center

Specify using the Stations Table below.

B. Common specifications

1. Nil
2. Positive common
3. Negative common

Match with the voltage specification of the manifold.

C. Manual override

1. Nil
2. Non-locking push type
3. Push-locking slotted type

Match with the common specification of the manifold.

Stations Table

Put "C" at stations needed for the arrangement of ejectors, valves, etc. (For mixed sizes of A, B port size, put C4 or C6 in the row of "a".)

<table>
<thead>
<tr>
<th>Valve stations or Layout</th>
<th>With silencer</th>
<th>Without silencer</th>
<th>With switch</th>
<th>Without switch</th>
<th>7</th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
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<th>1</th>
<th>Quantity</th>
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</tbody>
</table>

Plug-in assembly

(a) 2 position
    - Single solenoid
    - Double solenoid

(b) 3 position
    - Closed center
    - Exhaust center
    - Pressure center

Blanking plate assembly

Fill in to order special specifications.

SUP/EXH block assembly

SUP blocking disk

EXH blocking disk

Individual SUP spacer assembly

Individual EXH spacer assembly

Wiring specifications

Single wiring

Double wiring

A, B port size (Mixed specifications)

For SMC Use Only

<table>
<thead>
<tr>
<th>Customer code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note: Put down the model number and quantity of SUP/EXH block assemblies with the manifold model number when the mounting positions of SUP/EXH block assemblies are special specifications.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

For SMC Use Only

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Qty.</th>
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<tbody>
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</table>

For SMC Use Only

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Qty.</th>
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<tbody>
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</table>

For SMC Use Only

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>
## 1 Manifold Model

Fill in the blanks below with the symbols for required specifications.

### Common specifications
- Nil: Positive common
- N: Negative common

### Connector mounting position
- Symbol: U, D
- Position: U side, D side

### Total number of ejector and valve stations
- Symbol: 02, 06, 09, 15
- Stations: 6 stations, 16 stations
- Note: The number of blanking plate assembly is included.

### SUP/EXH block assembly mounting position
- Symbol: U, D
- Position: U side, D side
- Note: Double wiring specification

### SUP/EXH block assembly specifications
- Symbol: U, D
- Position: U side, D side
- Note: Valve applicable stations

### SUP/EXH block assembly mounting position
- Symbol: U, D
- Position: U side, D side
- Note: For special specifications, specify using the Stations Table on the next page.

### Number of ejector stations 1 to 7 stations
- Symbol: U, D
- Position: U side, D side

### Voltage
- 24 VDC, 12 VDC

### A, B port size (valve only)
- Symbol: C4, C6
- Specification: One-touch fitting for ø4, one-touch fitting for ø6
- Mixed size

### Special specifications
- M: For special specifications, specify using the Stations Table on the next page.

### For ordering the mixed size, put C4 or C6 respectively instead of "\(" in the Stations Table.

## 2 Ejector Valve Model

Fill in the blanks below with the symbols for required specifications.

### Rated voltage
- 24 VDC
- 12 VDC

### Nozzle diameter
- ø0.7 mm
- ø1.0 mm

### Max. vacuum pressure
- -84 kPa
- -53 kPa

### Silencer
- Nil: None
- 1: With silencer

### Vacuum switch
- Nil: None
- E: With vacuum switch

### Output specifications (Vacuum switch)
- NPN open collector 1 output, without analog output, 3 turn setting
- NPN open collector 1 output, without analog output, 200 degree setting
- NPN open collector 2 outputs, without analog output, 3 turn setting
- NPN open collector 2 outputs, without analog output, 200 degree setting
- NPN open collector 1 output, with analog output, 3 turn setting
- NPN open collector 1 output, with analog output, 200 degree setting
- PNP open collector 1 output, without analog output, 200 degree setting

### Wiring specifications (Vacuum switch)
- Nil: Grommet
- L: Lead wire length 0.6 m
- C: Lead wire length 0.6 m

### Manifold block
- Nil: With manifold block
- MN: None

### (Up to a total of 15 stations)

### Ejector/Valve stations layout (Special specifications)

**Note:** Connector block is not included in the stations and layout.
### Valve Model

Fill in the blanks below with the symbols for required specifications.

- SX3*40: Internal pilot
- SX3*40R: External pilot

**Type of actuation**

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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</thead>
<tbody>
<tr>
<td>2 position single solenoid</td>
<td>2 position double solenoid</td>
<td>3 position closed center</td>
<td>3 position exhaust center</td>
<td>3 position pressure center</td>
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</tbody>
</table>

**Rated voltage**

<table>
<thead>
<tr>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 VDC</td>
<td>12 VDC</td>
</tr>
</tbody>
</table>

**Common specifications**

- Nil
- Positive common
- Negative common

**Manual override**

- Nil
- Non-locking push type
- Push-locking slotted type

### Stations Table

Put “C” at stations needed for the arrangement of ejectors, valves, etc. (For mixed sizes of A, B port size, put C4 or C6 in the row of C.)

<table>
<thead>
<tr>
<th>Valve stations or Layout</th>
<th>15</th>
<th>14</th>
<th>13</th>
<th>12</th>
<th>11</th>
<th>10</th>
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</table>

**Ejector specifications**

- Nozzle diameter 07
- Nozzle diameter 10

**SUP blocking disk**

- Individual SUP spacer assembly
- SUP/EXH block assembly
- SUP/EXH block assembly (Standard)
- SUP/EXH block assembly (R)
- SUP/EXH block assembly (S)
- SUP/EXH block assembly (RS)

**Common specifications**

- Nil
- Positive common
- Negative common

**Wiring specifications**

- Single wiring
- Double wiring

**A, B port size (Mixed specifications)**

- Two pieces used for one station

**For SMC Use Only**

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Qty.</th>
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</table>

**Note:** Plug-in assembly: ZYY3000-PA

- Blanking plate assembly: SX3000-75-2A
- SUP blocking disk: SX3000-77-1A
- EXH blocking disk: SX3000-77-1A for one station

- Individual SUP spacer assembly: SX3000-38-3A
- Individual EXH spacer assembly: SX3000-39-3A
- SUP/EXH block assembly (R): SX3000-51-6A
- SUP/EXH block assembly (S): SX3000-51-7A
- SUP/EXH block assembly (RS): SX3000-51-8A

**For SMC Use Only**

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</table>

**Note:** Put down the model number and quantity of SUP/EXH block assemblies with the model number when the mounting positions of SUP/EXH block assemblies are special specifications.
**Manifold Model**

Fill in the blanks below with the symbols for required specifications.

**Ejector Valve Model**

Fill in the blanks below with the symbols for required specifications.

---

### Manifold Model

#### Fill in the blanks in the order from ① to ④.

#### ① Manifold Model

Fill in the blanks below with the symbols for required specifications.

#### ② Ejector Valve Model

Fill in the blanks below with the symbols for required specifications.

---

### Symbols and Specifications

- **Ejector mounting position symbol**
  - U side
  - D side

- **Manifold block mounting position symbol**
  - U side
  - D side

- **Number of Ejector and Valve Stations**
  - 1 to 10 stations
  - 11 to 19 stations

- **Voltage**
  - 24 VDC
  - 12 VDC

- **Solenoid port size (valve only)**
  - C4
  - C6

- **Solenoid type**
  - Standard/Internal pilot
  - External pilot
  - Made to Order

- **Special specifications**
  - M

- **Nozzle diameter**
  - ø0.7 mm
  - ø1.0 mm

- **Max. vacuum pressure**
  - S: –84 kPa
  - L: –53 kPa

- **Silencer**
  - Nil
  - With silencer

- **Vacuum switch**
  - Nil
  - With vacuum switch

- **Output specifications (Vacuum switch)**
  - NPN open collector 1 output, without analog output, 3 turn setting
  - NPN open collector 1 output, with analog output, 3 turn setting
  - NPN open collector 2 outputs, without analog output, 3 turn setting
  - NPN open collector 2 outputs, with analog output, 3 turn setting
  - NPN open collector 1 output, with analog output, 200 degree setting
  - PNP open collector 1 output, without analog output, 200 degree setting

- **Wiring specifications (Vacuum switch)**
  - Nil
  - Grommet
  - Lead wire length: 0.6 m
  - Connector type
  - Lead wire length: 3 m

---

**Diagram**

- Ejector/Valve stations layout (Special specifications)

---

**Note**

- Connector block is not included in the stations and layout.

---

1086
### 3 Valve Model

Fill in the blanks below with the symbols for required specifications.

**SX3** * 40\textsuperscript{R} LOZ

#### Type of actuation

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2 position single solenoid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2 position double solenoid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3 position closed center</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>3 position exhaust center</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>3 position pressure center</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Specify using the Specifications Table below.

#### Rated voltage

<table>
<thead>
<tr>
<th>1</th>
<th>24 VDC</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>12 VDC</td>
</tr>
</tbody>
</table>

Match with the voltage specification of the manifold.

#### Common specifications

<table>
<thead>
<tr>
<th>3</th>
<th>Nil</th>
<th>Positive common</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>N</td>
<td>Negative common</td>
</tr>
</tbody>
</table>

Match with the common specification of the manifold.

#### Manual override

<table>
<thead>
<tr>
<th>5</th>
<th>Nil</th>
<th>Non-locking push type</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>D</td>
<td>Push-locking slotted type</td>
</tr>
</tbody>
</table>

### 4 Stations Table

Put "C" at stations needed for the arrangement of ejectors, valves, etc. (For mixed sizes of A, B port size, put C4 or C6 in the row of 8.)

#### Valve stations or Layout

| No. | Description                        | 19 | 18 | 17 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9  | 8  | 7  | 6  | 5  | 4  | 3  | 2  | 1  | Quantity |
|-----|------------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------|
| 1   | With silencer                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |
| 2   | Without silencer                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |
| 3   | With switch                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |
| 4   | Without switch                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |

#### Ejector specifications

| 5   | Nozzle diameter 07                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |
| 6   | Nozzle diameter 10                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |

#### Valve specifications

| 7   | Single solenoid                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |
| 8   | Double solenoid                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |
| 9   | Closed center                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 10  | Exhaust center                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 11  | Pressure center                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

#### Blanking plate assembly

| 12  | Special specifications            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |
|     | SUP/EXH block assembly            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |

#### SUP blocking disk

| 13  | Individual SUP spacer assembly    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |
| 14  | Individual EXH spacer assembly    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |

#### EXH blocking disk

| 15  | Individual SUP spacer assembly    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |
| 16  | Individual EXH spacer assembly    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |

#### Wiring specifications

| 17  | Single wiring                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |
| 18  | Double wiring                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |

### For SMC Use Only

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Qty.</th>
<th>Model No.</th>
<th>Qty.</th>
</tr>
</thead>
</table>

Note: Plug-in assembly: ZYY3000-PA

- Blanking plate assembly: SX3000-75-2A
- SUP blocking disk: SX3000-77-1A
- EXH blocking disk: SX3000-77-1A
- Individual SUP spacer assembly: SX3000-38-3A
- Individual EXH spacer assembly: SX3000-39-3A
- SUP/EXH block assembly (R): SX3000-51-6A
- SUP/EXH block assembly (S): SX3000-51-7A
- SUP/EXH block assembly (RS): SX3000-51-8A

For the mounting positions of SUP/EXH block assemblies, special specifications are required.

Note: Put down the model number and quantity of SUP/EXH block assemblies with the manifold model number when the mounting positions of SUP/EXH block assemblies are special specifications.
### 1. Manifold Model

Fill in the blanks below with the symbols for required specifications.

**ZZYX3 - 45**

**Common specifications**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Stations</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Nil</td>
<td>Positive common</td>
</tr>
<tr>
<td>N</td>
<td>Negative common</td>
<td></td>
</tr>
</tbody>
</table>

**Total number of ejector and valve stations**

1 to 10 stations

**SUP/EXH block assembly mounting position**

- Symbol: U side
- D side

**Number of ejector stations**

1 to 10 stations

**Connecting block**

- Note: Connector block is not included in the stations and layout.

**Rated voltage**

5: 24 VDC
6: 12 VDC

**Common specifications**

- Nil: Positive common
- N: Negative common

**Matching with the common specification of the manifold.**

**Manual override**

- Nil: Non-locking push type
- D: Push-locking slotted type

**Nozzle diameter**

- 07: ø0.7 mm
- 10: ø1.0 mm

**Max. vacuum pressure**

- S: –84 kPa
- L: –53 kPa

**Silencer**

- Nil: None
- 1: With silencer

**Vacuum switch**

- Nil: None
- E: With vacuum switch

**Output specifications (Vacuum switch)**

- 14: NPN open collector 1 output, without analog output, 3 turn setting
- 15: NPN open collector 1 output, without analog output, 3 turn setting
- 16: NPN open collector 2 outputs, without analog output, 3 turn setting
- 17: NPN open collector 2 outputs, without analog output, 200 degree setting
- 18: NPN open collector 1 output, with analog output, 3 turn setting
- 19: NPN open collector 1 output, with analog output, 200 degree setting
- 55: PNP open collector 1 output, without analog output, 200 degree setting

**Wiring specifications (Vacuum switch)**

- Nil: Grommet
- L: Lead wire length 0.6 m
- C: Lead wire length 0.6 m
- CL: Connector type
- CN: Connector type

**Manifold block**

- Nil: With manifold block
- MN: None

(Up to a total of 19 stations)

**Ejector/Valve stations layout (Special specifications)**

**2. Ejector Valve Model**

Fill in the blanks below with the symbols for required specifications.

**ZZYX3 - LOZ**

**Connector mounting position**

- Symbol: U side
- D side

**Number of ejector stations 1 to 10 stations**

- Nil: 12 VDC
- 12V: 24 VDC

**A, B port size (valve only)**

- Symbol: C4
- C6
- M: Mixed size

For ordering the mixed size, put C4 or C6 respectively instead of " in the Stations Table.

**Mounting position**

- U side
- D side

**Output specifications**

- 14: NPN open collector 1 output, without analog output, 3 turn setting
- 15: NPN open collector 1 output, without analog output, 3 turn setting
- 16: NPN open collector 2 outputs, without analog output, 3 turn setting
- 17: NPN open collector 2 outputs, without analog output, 200 degree setting
- 18: NPN open collector 1 output, with analog output, 3 turn setting
- 19: NPN open collector 1 output, with analog output, 200 degree setting
- 55: PNP open collector 1 output, without analog output, 200 degree setting

**Wiring specifications**

- Nil: Grommet
- L: Lead wire length 0.6 m
- C: Lead wire length 0.6 m
- CL: Connector type
- CN: Connector type

**Ejector/Valve stations layout (Special specifications)**

**Note:** Connector block is not included in the stations and layout.
### Valve Model

Fill in the blanks below with the symbols for required specifications.

**SX3**

| Type of actuation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Quantity |
| 1 | 2 position single solenoid |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 | 2 position double solenoid |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 | 3 position closed center |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 | 3 position exhaust center |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5 | 3 position pressure center |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Specify using the Stations Table below.

### Stations Table

Put "C" at stations needed for the arrangement of ejectors, valves, etc. (For mixed sizes of A, B port size, put C4 or C6 in the row of B.)

<table>
<thead>
<tr>
<th>Valve stations or Layout</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
<th>19</th>
<th>20</th>
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<th>28</th>
<th>29</th>
<th>30</th>
<th>31</th>
<th>32</th>
<th>Quantity</th>
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</thead>
<tbody>
<tr>
<td>With</td>
<td>With switch</td>
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</tbody>
</table>

#### Valve specifications

- **SUP blocking disk**
- **EXH blocking disk**
- **Individual SUP spacer assembly**
- **Individual EXH spacer assembly**
- **Wiring specifications**
  - Single wiring
  - Double wiring

#### Empty Table

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Qty.</th>
<th>Model No.</th>
<th>Qty.</th>
</tr>
</thead>
</table>

For SMC Use Only

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Qty.</th>
</tr>
</thead>
</table>

#### Note
- **Plug-in assembly: ZYY3000-PA**
- **SUP blocking disk: SX3000-77-1A**
- **EXH blocking disk: SX3000-77-1A** (Two pieces used for one station)
- **SUP/EXH block assembly (Standard): SX3000-51-2A**
- **SUP/EXH block assembly (R): SX3000-51-6A**
- **SUP/EXH block assembly (S): SX3000-51-7A**
- **SUP/EXH block assembly (RS): SX3000-51-8A**

**Customer code**

**Code for person in charge**

**Departmental code**

**Note**
- Put down the model number and quantity of SUP/EXH block assemblies when the mounting positions of SUP/EXH block assemblies are special specifications.
1. **Manifold Model**

Fill in the blanks below with the symbols for required specifications.

**Manifold Model Specification Sheet**

- **Model:** ZZYX3-45S
- **Protocol Type:**
  - Without SI unit
  - NKE Corp.: Fieldbus System
  - NKE Corp.: Fieldbus H System
  - Panasonic Industrial Devices SUNX Co., Ltd.: S-LINK (16 outputs)
  - Panasonic Industrial Devices SUNX Co., Ltd.: S-LINK (8 outputs)
  - DeviceNet™
  - OMRON Corp.: CompoBus/S (16 outputs) compatible
  - OMRON Corp.: CompoBus/S (8 outputs) compatible
  - CC-LINK
  - CompoNet™
- **Number of Ejector Stations:** 1 to 7 stations
- **Special Specifications:**
  - For special specifications, specify using the Stations Table on the next page.

2. **Ejector Valve Model**

Fill in the blanks below with the symbols for required specifications.

**Ejector Valve Model Specification Sheet**

- **Model:** ZZYX3-5 LOZ
- **Common Specifications**:
  - Nil Positive common
  - N Negative common
  - Match with the common specification of the manifold.
- **Manual Override**:
  - Nil Non-locking push type
  - D Push-locking slotted type
- **Nozzle Diameter**:
  - 07 ø0.7 mm
  - 10 ø1.0 mm
- **Max. Vacuum Pressure**:
  - S -84 kPa
  - L -53 kPa
- **Silencer**:
  - Nil None
  - 1 With silencer
- **Vacuum Switch**:
  - Nil None
  - E With vacuum switch

**Output Specifications (Vacuum Switch)**:

- 14 NPN open collector 1 output, without analog output, 3 turn setting
- 15 NPN open collector 1 output, without analog output, 200 degree setting
- 16 NPN open collector 2 outputs, without analog output, 3 turn setting
- 17 NPN open collector 2 outputs, without analog output, 200 degree setting
- 18 NPN open collector 1 output, with analog output, 3 turn setting
- 19 NPN open collector 1 output, with analog output, 200 degree setting
- 55 NPN open collector 1 output, with analog output, 200 degree setting

**Wiring Specifications (Vacuum Switch)**:

- Nil Grommet type
- L Lead wire length 0.6 m
- C Connector type
- CL Lead wire length 3 m
- CN Connector type
- MN With manifold block

**Manifold Block**

- Nil With manifold block
- MN None

**SUP/EXH Block Assembly Mounting Position**

- U Side
- D Side

**Ejector Mounting Position**

- U Side
- D Side

**SUP/EXH Block Assembly Specifications**

- A Port size (valve only)
- R Symbol
- E Specifications
- S One-touch fitting for ø4
- C One-touch fitting for ø6
- M Mixed size

**Supplementary Information**

- For ordering the mixed size, put C4 or C6 respectively instead of " in the Stations Table.
- The number of blanking plate assembly is included.
- Double wiring specification
- Up to 16 solenoids possible.

**Notes**

- For special specifications, specify using the Stations Table on the next page.
- Match with the common specification of the manifold.
- For ordering the mixed size, put C4 or C6 respectively instead of " in the Stations Table.
### Valve Model
Fill in the blanks below with the symbols for required specifications.

| SX3 | 40R | 5 | LOZ |

- **Type of actuation**
  1. 2 position single solenoid
  2. 2 position double solenoid
  3. 3 position closed center
  4. 3 position exhaust center
  5. 3 position pressure center

- **Rated voltage** 24 VDC
- **Manual override**
  - Nil
  - Non-locking push type
  - D
  - Push-locking slotted type

### Stations Table
Put "O" at stations needed for the arrangement of ejectors, valves, etc. (For mixed sizes of A, B port size, put C4 or C6 in the row of O.)

<table>
<thead>
<tr>
<th>Valve stations or Layout</th>
<th>15</th>
<th>14</th>
<th>13</th>
<th>12</th>
<th>11</th>
<th>10</th>
<th>9</th>
<th>8</th>
<th>7</th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>With silencer</td>
<td></td>
<td></td>
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<tr>
<td>With switch</td>
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<tr>
<td>Without silencer</td>
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</tbody>
</table>

#### Valve specifications
- Nozzle diameter 07
- Nozzle diameter 10
- Valve stations 2 position
- Valve stations 3 position

#### Ejector specifications
- Single solenoid
- Double solenoid
- Closed center
- Exhaust center
- Pressure center

#### SUP/EXH block assembly
Fill in as order special specifications.

#### Wiring specifications
- Single wiring
- Double wiring

### Note
- Plug-in assembly: ZYY3000-PA
- Blanking plate assembly: SX3000-75-2A
- SUP blocking disk: SX3000-77-1A
- EXH blocking disk: SX3000-77-1A (for one station)
- Individual SUP spacer assembly: SX3000-38-3A
- Individual EXH spacer assembly: SX3000-39-3A
- SUP/EXH block assembly (Standard): SX3000-51-2A
- SUP/EXH block assembly (R): SX3000-51-6A
- SUP/EXH block assembly (S): SX3000-51-7A
- SUP/EXH block assembly (RS): SX3000-51-8A

### For SMC Use Only

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Qty.</th>
<th>Model No.</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

- Customer code
- Date of issue
- Department code
- Note: Put down the model number and quantity of SUP/EXH block assemblies with the manifold model number when the mounting positions of SUP/EXH block assemblies are special specifications.
Manifold Valve Specification Sheet

ZYX3000 Serial Wiring Type (Separated) DIN rail manifold

Fill in the blanks in the order from ① to ④.

① Manifold Model
Fill in the blanks below with the symbols for required specifications.

ZYX3 –45S1

Si unit specifications

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Protocol type</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Without Si unit</td>
</tr>
<tr>
<td>F1</td>
<td>NKE Corp.: Fieldbus System</td>
</tr>
<tr>
<td>H</td>
<td>NKE Corp.: Fieldbus H System</td>
</tr>
<tr>
<td>J1</td>
<td>Panasonic Industrial Devices SUNX Co., Ltd. S-LINK (16 outputs)</td>
</tr>
<tr>
<td>J2</td>
<td>Panasonic Industrial Devices SUNX Co., Ltd. S-LINK (8 outputs)</td>
</tr>
<tr>
<td>Q</td>
<td>DeviceNet™</td>
</tr>
<tr>
<td>R1</td>
<td>OMRON Corp.: CompoBus/S (16 outputs) compatible</td>
</tr>
<tr>
<td>R2</td>
<td>OMRON Corp.: CompoBus/S (8 outputs) compatible</td>
</tr>
<tr>
<td>ZB</td>
<td>CompoNet™</td>
</tr>
</tbody>
</table>

Total number of ejector and valve stations

SUP/EXH block assembly mounting position

Don't detach this page.

ZYX3 Serial Wiring Type (Separated)

DIN rail manifold

Company

Person in charge

Sheet No.

Order No.

Equipment

Quantity

Date of delivery

Manifold Model

Ejector mounting position

Symbol | Mounting position |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>U</td>
<td>U side</td>
</tr>
<tr>
<td>D</td>
<td>D side</td>
</tr>
</tbody>
</table>

Ejector Valve Model

Fill in the blanks below with the symbols for required specifications.

ZYX3 5 LOZ

Nozzle diameter

<table>
<thead>
<tr>
<th>Number</th>
<th>Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>07</td>
<td>ø0.7 mm</td>
</tr>
<tr>
<td>10</td>
<td>ø1.0 mm</td>
</tr>
</tbody>
</table>

Max. vacuum pressure

<table>
<thead>
<tr>
<th>Number</th>
<th>Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>–84 kPa</td>
</tr>
<tr>
<td>L</td>
<td>–53 kPa</td>
</tr>
</tbody>
</table>

Silencer

<table>
<thead>
<tr>
<th>Number</th>
<th>Silencer type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
<td>None</td>
</tr>
<tr>
<td>1</td>
<td>With silencer</td>
</tr>
</tbody>
</table>

Vacuum switch

<table>
<thead>
<tr>
<th>Number</th>
<th>Vacuum switch type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
<td>None</td>
</tr>
<tr>
<td>E</td>
<td>With vacuum switch</td>
</tr>
</tbody>
</table>

Output specifications (Vacuum switch)

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>NPN open collector 1 output, without analog output, 3 turn setting</td>
</tr>
<tr>
<td>15</td>
<td>NPN open collector 1 output, without analog output, 200 degree setting</td>
</tr>
<tr>
<td>16</td>
<td>NPN open collector 2 outputs, without analog output, 3 turn setting</td>
</tr>
<tr>
<td>17</td>
<td>NPN open collector 2 outputs, without analog output, 200 degree setting</td>
</tr>
<tr>
<td>18</td>
<td>NPN open collector 1 output, with analog output, 2 turn setting</td>
</tr>
<tr>
<td>19</td>
<td>NPN open collector 1 output, with analog output, 200 degree setting</td>
</tr>
<tr>
<td>55</td>
<td>PNP open collector 1 output, without analog output, 200 degree setting</td>
</tr>
</tbody>
</table>

Wiring specifications (Vacuum switch)

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
<td>Grommet type Lead wire length 0.5 m</td>
</tr>
<tr>
<td>L</td>
<td>Connector type Lead wire length 3 m</td>
</tr>
<tr>
<td>C</td>
<td>Connector type Lead wire length 0.8 m</td>
</tr>
</tbody>
</table>

Manifold block

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
<td>With manifold block</td>
</tr>
<tr>
<td>MN</td>
<td>None</td>
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</tbody>
</table>

Mounting position

<table>
<thead>
<tr>
<th>Number</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>U</td>
<td>U side</td>
</tr>
<tr>
<td>D</td>
<td>D side</td>
</tr>
</tbody>
</table>

Ejector/Valve stations layout (Special specifications)

Note) Connector block is not included in the stations and layout.
### Valve Model

Fill in the blanks below with the symbols for required specifications.

**SX3** *40R* - 5 LOZ

- **Type of actuation**
  1. 2 position single solenoid
  2. 2 position double solenoid
  3. 3 position closed center
  4. 3 position exhaust center
  5. 3 position pressure center

- **Manual override**
  - Nil
  - D

- **Rated voltage**
  - 24 VDC

- **With silencer**
  - Nozzle diameter 07
  - Nozzle diameter 10

- **Without silencer**
  - Nozzle diameter 07
  - Nozzle diameter 10

- **Plug-in assembly**
  - With switch
  - Without switch

### Stations Table

Put "**" at stations needed for the arrangement of ejectors, valves, etc. (For mixed sizes of A, B port size, put C4 or C6 in the row of □.)

<table>
<thead>
<tr>
<th>Valve stations or Layout</th>
<th>15</th>
<th>14</th>
<th>13</th>
<th>12</th>
<th>11</th>
<th>10</th>
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<th>3</th>
<th>2</th>
<th>1</th>
<th>Quantity</th>
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</thead>
<tbody>
<tr>
<td>With silencer</td>
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<tr>
<td>Without silencer</td>
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</tbody>
</table>

#### Valve specifications

- **2 position**
  - Single solenoid
  - Double solenoid

- **3 position**
  - Closed center
  - Exhaust center
  - Pressure center

- **Blanking plate assembly**
  - SUP/EXH block assembly

#### Wiring specifications

- **Single wiring**
  - SUP/EXH block assembly (Standard): SX3000-51-2A
  - SUP/EXH block assembly (R): SX3000-51-6A
  - SUP/EXH block assembly (S): SX3000-51-7A
  - SUP/EXH block assembly (RS): SX3000-51-8A

### For SMC Use Only

- **Model No.**
- **Qty.**
- **Model No.**
- **Qty.**

### Note

- **Plugging in assembly:** ZYY3000-PA
- **SUP blocking disk:** SX3000-77-1A
- **EXH blocking disk:** SX3000-77-1A (Two pieces used for one station)
- **SUP/EXH block assembly:** SX3000-51-2A
- **SUP/EXH block assembly (R):** SX3000-51-6A
- **SUP/EXH block assembly (S):** SX3000-51-7A
- **SUP/EXH block assembly (RS):** SX3000-51-8A

#### Customer code
- Date or place of ignition
- Departmental code

Note: Put down the model number and quantity of SUP/EXH block assemblies with the manifold model number when the mounting positions of SUP/EXH block assemblies are special specifications.
Manifold Valve Specification Sheet

1. Manifold Model

Fill in the blanks below with the symbols for required specifications.

ZZYX3 - 45S2

Number of ejector stations
1 to 7 stations

Total number of ejector and valve stations
With transmission unit
Without transmission unit
Nil
0

Ejector/Valve stations layout (Special specifications)

Sup/EXH block assembly mounting position

Sup/EXH block assembly specifications

Ejector mounting position

A, B port size (valve only)

Unit
Nil
With transmission unit
0
Without transmission unit

Ejector mounting position

Sup/EXH block assembly mounting position

Sup/EXH block assembly specifications

Number of ejector stations 1 to 7 stations

A, B port size (valve only)

Mounting position
U side
D side

Mounting position
U side
D side

Mounting position
U side
D side

A. Common specifications

- Nil
- Positive common
- Negative common

Match with the common specification of the manifold.

B. Manual override

- Nil
- Non-locking push type
- Push-locking slotted type

C. Output specifications (Vacuum switch)

14. NPN open collector 1 output, without analog output, 3 turn setting
15. NPN open collector 1 output, without analog output, 200 degree setting
16. NPN open collector 2 outputs, without analog output, 3 turn setting
17. NPN open collector 2 outputs, without analog output, 200 degree setting
18. NPN open collector 1 output, with analog output, 3 turn setting
19. NPN open collector 1 output, with analog output, 200 degree setting
55. PNP open collector 1 output, without analog output, 200 degree setting

D. Wiring specifications (Vacuum switch)

- Nil
- With manifold block
- MN

E. Output specifications (Vacuum switch)

14. NPN open collector 1 output, without analog output, 3 turn setting
15. NPN open collector 1 output, without analog output, 200 degree setting
16. NPN open collector 2 outputs, without analog output, 3 turn setting
17. NPN open collector 2 outputs, without analog output, 200 degree setting
18. NPN open collector 1 output, with analog output, 3 turn setting
19. NPN open collector 1 output, with analog output, 200 degree setting

F. Nozzle diameter

07 ø0.7 mm
10 ø1.0 mm

G. Max. vacuum pressure

84 kPa
53 kPa

H. Silencer

Nil
None
1 With silencer

I. Vacuum switch

Nil
None
E With vacuum switch

J. Lead wire length

0.6 m
3 m

K. Lead wire type

C4 One-touch fitting for ø4
C6 One-touch fitting for ø6
Mixed size

Note) Connector block is not included in the stations and layout.

(Upto a total of 15 stations)

U side
D side

Connector block
**Valve Model**

Fill in the blanks below with the symbols for required specifications.

SX3 \* 40^R\* - 5  LOZ

<table>
<thead>
<tr>
<th>Type of actuation</th>
<th>Rated voltage 24 VDC</th>
<th>Manual override</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 position single solenoid</td>
<td></td>
<td>Nil</td>
</tr>
<tr>
<td>2 2 position double solenoid</td>
<td></td>
<td>Non-locking push type</td>
</tr>
<tr>
<td>3 3 position closed center</td>
<td></td>
<td>D Push-locking slotted type</td>
</tr>
<tr>
<td>4 3 position exhaust center</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 3 position pressure center</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Specify using the Stations Table below.

**Stations Table**

Put "\(\)" at stations needed for the arrangement of ejectors, valves, etc. (For mixed sizes of A, B port size, put C4 or C6 in the row of \(\)\(.\))

<table>
<thead>
<tr>
<th>Valve stations or Layout</th>
<th>15</th>
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<th>13</th>
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<th>4</th>
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<th>Quantity</th>
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<tbody>
<tr>
<td>With silencer</td>
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</table>

**Valve specifications**

<table>
<thead>
<tr>
<th>Valve stations or Layout</th>
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<th>14</th>
<th>13</th>
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<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>With silencer</td>
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</tbody>
</table>

**Plug-in assembly**

<table>
<thead>
<tr>
<th>Valve stations or Layout</th>
<th>15</th>
<th>14</th>
<th>13</th>
<th>12</th>
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<th>Quantity</th>
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</thead>
<tbody>
<tr>
<td>With silencer</td>
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</tbody>
</table>

**Blanking plate assembly**

<table>
<thead>
<tr>
<th>Valve stations or Layout</th>
<th>15</th>
<th>14</th>
<th>13</th>
<th>12</th>
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<tbody>
<tr>
<td>With silencer</td>
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</table>

**SUP blocking disk**

<table>
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<th>13</th>
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<tbody>
<tr>
<td>With silencer</td>
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**EXH blocking disk**

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<th>Valve stations or Layout</th>
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**Wiring specifications**

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<tbody>
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Note: Plug-in assembly: ZYY3000-PA
- Blanking plate assembly: SX3000-75-2A
- SUP blocking disk: SX3000-77-1A
- EXH blocking disk: SX3000-77-1A (Two pieces used for one station)

For SMC Use Only

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Qty.</th>
<th>Customer code</th>
<th>Date for price increase</th>
<th>Departmental code</th>
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Note: Put down the model number and quantity of SUP/EXH block assemblies with the manifold model number when the mounting positions of SUP/EXH block assemblies are special specifications.
**Series ZYY/ZYX**

Electronic Pressure Switches

Specific Product Precautions 1

Be sure to read before handling.

### Design/Selection

**Warning**

1. Use with the specified voltage.
   Use with voltage outside of the specifications can cause malfunction or switch damage, as well as electrocution and fire hazard, etc.

2. Never use a load which exceeds the maximum load capacity.
   This may damage a switch or reduce its service life.

3. Do not use a load that generates surge voltage.
   Although a zener diode for surge protection is connected at the output side of a switch, damage may still occur if the surge is applied repeatedly.
   When a load, such as a relay or solenoid, which generates surge is directly driven, use a type of switch having a built-in surge absorbing element.

4. Be sure to confirm the fluid specifications.
   Since switches do not have explosion-proof construction, do not use flammable gases or fluids. This may cause a fire or explosion.

5. Be certain to observe the regulating pressure range and maximum operating pressure.
   Operation at a pressure outside of this range can cause failure. In addition, the switch will be broken if operated above the maximum operating pressure.

### Wiring

**Warning**

1. Confirm wire colors and terminal numbers when wiring is performed.
   Since incorrect wiring can lead to breakage or failure of the switch as well as malfunction, perform wiring after confirming wiring colors and terminal numbers with the instruction manual.

2. Avoid repeatedly bending or stretching lead wires.
   Broken lead wires will result from applying bending stress or stretching force to the lead wires. In the event that lead wires are damaged creating a possibility of malfunction, replace the entire product. (For cases in which the lead wires cannot be replaced through grommets.)

3. Confirm proper insulation of wiring.
   Be certain that there is no faulty wiring insulation (contact with other circuits, ground fault, improper insulation between terminals, etc.). Damage may occur due to excess current flow into a switch.

4. Do not wire power lines or high voltage lines.
   Wire separately from power lines or high voltage lines, avoiding parallel wiring or wiring in the same conduit with these lines. Control circuits, including switches, may malfunction due to noise from these other lines.

5. Do not allow short circuiting of loads.
   Use caution, as switches will be damaged instantly if a load is short circuited. Be especially careful not to reverse the power supply line (Brown) and the output line (Black).

### Mounting

**Warning**

1. Do not use until you can verify that equipment can operate properly.
   Verify correct mounting by suitable function and leakage inspections after air and power are connected following mounting, maintenance or conversions.

2. Do not drop or bump.
   Do not drop, bump or apply excessive impact (1000 m/s²) when handling. Even if the switch body is not damaged, the switch may suffer internal damage that will lead to malfunction.

3. Hold the product from the body side when handling.
   The tensile strength of the power cord is 49 N, and pulling it with a force greater than this can cause failure. Hold by the body when handling.

4. Turn the setting trimmer gently using a watchmakers screw driver.
   Turn the setting trimmer gently using a watchmakers screw driver. Do not turn beyond the stoppers located at both sides. If the trimmer is broken, adjustment will be impossible.

5. Pressure port
   Do not insert wire, etc, from the pressure port. This will damage the pressure sensor, making it impossible to obtain normal operation.

### Pressure Source

**Warning**

1. Observe the fluid and ambient temperature ranges.
   The fluid and ambient temperatures are 5 to 50°C. Moisture in circuits can freeze at 5°C or below, causing damage to O-rings, and malfunction. Consider measures to prevent freezing. The installation of an air dryer is recommended to remove drainage and moisture from circuits.
   Furthermore, even though the ambient temperature range remains within specifications, do not operate in locations where there are abrupt temperature changes.

2. Vacuum pressure switches
   There will be no change in performance if a pressure of 0.5 MPa or less is applied for 1 second or less (when releasing a vacuum), but care should be taken that pressures of 0.2 MPa or more are not regularly applied.
**Warning**

1. **Never use in an atmosphere of explosive gases.**
   The structure of pressure switches is not intended to prevent explosion. Never use in an atmosphere with an explosive gas since this may cause a serious explosion.

2. **Do not use in locations with sources of surge generation.**
   When equipment that generates a large amount of surge (solenoid type lifters, high frequency induction furnaces, motors, etc.) is located in the area around a pressure switch, there is a danger of deterioration or damage to the switch’s internal circuit elements. Therefore, implement surge countermeasures at the sources, and avoid the mixing and touching of lines.

3. **Operating environment**
   Since the electronic pressure switch is basically an open type, avoid use in locations where there is a scattering of water or oil, etc.

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**Precautions**

Be sure to read before handling. Refer to front matter 35 for Safety Instructions and pages 899 to 901 for Vacuum Equipment Precautions.

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**Operating Environment**

**Warning**

1. **Perform maintenance regularly.**
   It may otherwise not be possible to assure safety due to unexpected malfunction or misoperation, etc.

2. **When used in an interlock circuit**
   When used in an interlock circuit, provide multiple interlock circuits as a precaution against failure, and also perform regular inspections to confirm normal operation.

3. **When the body requires cleaning**
   Use a soft cloth to clean the case. In case of heavy soiling, wipe it off with a cloth soaked in a neutral detergent diluted with water after wringing it out thoroughly, and finish up by wiping with a dry cloth.

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**Piping**

**Caution**

1. Connect the compressed air supply piping separately to the solenoid valves and ejector valves. Also, connect each ejector valve to separate piping system.

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**Operation of Ejector Valves**

**Caution**

1. When the pilot valve for air supply is turned ON, the main valve switches, and vacuum is generated by the flow of compressed air from the nozzle to the diffuser.
   When the pilot valve for vacuum release is turned ON, the main valve switches, and the vacuum is quickly released as air passes through the release flow adjustment needle and flows to the vacuum port.
   When the pilot valve for air supply and the pilot valve for vacuum release are both OFF, the main valve is in a closed state in the center position.

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**Solenoid Valves (Series SY3000/SX3000)**

**Caution**

1. Refer to Best Pneumatics No. 1 and SMC website for Specific Product Precautions for solenoid valves (Series SY3000/SX3000).

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**Serial Wiring**

**Caution**

1. Serial wiring is possible only for the solenoid valve section. Wire the vacuum switch separately.