Quick Exhaust Valve
Series AQ

Excellent exhaust characteristics
Large flow capacity
Compact and lightweight
A wide selection of models

<table>
<thead>
<tr>
<th>Model</th>
<th>Port size</th>
<th>Effective area (mm²)</th>
<th>Mass (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AQ1500-M5</td>
<td>M5 x 0.8</td>
<td>2</td>
<td>2.8</td>
</tr>
<tr>
<td>AQ1510-01</td>
<td>1/8</td>
<td>4</td>
<td>5.8</td>
</tr>
<tr>
<td>AQ2000-01</td>
<td>1/8</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>AQ2000-02</td>
<td>1/4</td>
<td>35</td>
<td>40</td>
</tr>
<tr>
<td>AQ3000-02</td>
<td>1/4</td>
<td>40</td>
<td>42</td>
</tr>
<tr>
<td>AQ3000-03</td>
<td>3/8</td>
<td>60</td>
<td>70</td>
</tr>
<tr>
<td>AQ5000-04</td>
<td>1/2</td>
<td>105</td>
<td>115</td>
</tr>
<tr>
<td>AQ5000-06</td>
<td>3/4</td>
<td>135</td>
<td>180</td>
</tr>
</tbody>
</table>

Specifications

Fluid | Proof pressure (Max) | Air | 1.5 MPa
Min. operating pressure (Min) | AQ1500-00 | 0.7 MPa
Max. operating pressure (Max) | AQ2000 to 5000 | 1 MPa
Min. operating pressure (Min) | AQ1500-00 | 0.1 MPa
Max. operating pressure (Max) | AQ2000 to 5000 | 0.05 MPa
Ambient and fluid temperature | –5 to 60°C (No freezing)

How to Order

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Type</th>
<th>Applicable model</th>
</tr>
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<tbody>
<tr>
<td>0</td>
<td>Diaphragm</td>
<td>AQ2 to AQ5</td>
</tr>
<tr>
<td>5</td>
<td>Lip</td>
<td>AQ7 Only</td>
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Standard size

<table>
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<tr>
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<td>2</td>
<td>1/4</td>
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<td>3</td>
<td>3/8</td>
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<tr>
<td>5</td>
<td>3/4</td>
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<table>
<thead>
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<th>Port size</th>
<th>Applicable series</th>
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<tr>
<td>M5 x 0.8</td>
<td>AQ1500</td>
</tr>
<tr>
<td>1/4</td>
<td>AQ1510/2000</td>
</tr>
<tr>
<td>3/8</td>
<td>AQ2000/3000</td>
</tr>
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<td>5/8</td>
<td>AQ3000</td>
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<td>3/4</td>
<td>AQ5000</td>
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<table>
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<tr>
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<tr>
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<td>Re</td>
</tr>
<tr>
<td>N</td>
<td>NPT</td>
</tr>
<tr>
<td>F</td>
<td>G</td>
</tr>
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Quick Exhaust Valve **Series AQ**

### Construction

<table>
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<th>No.</th>
<th>Description</th>
<th>Material/Model</th>
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<tbody>
<tr>
<td>1</td>
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<td>AQ1500 Zinc die-casted</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AQ1510 Zinc die-casted</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AQ2000, 3000, 5000</td>
</tr>
<tr>
<td>2</td>
<td>Guide</td>
<td>AQ1500 Brass</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AQ1510 Brass</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AQ2000, 3000, 5000</td>
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<tr>
<td>3</td>
<td>Cover</td>
<td>AQ1500 —</td>
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<tr>
<td></td>
<td></td>
<td>AQ1510 —</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AQ2000, 3000, 5000</td>
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### Component Parts

<table>
<thead>
<tr>
<th>No.</th>
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<th>Material</th>
<th>Part no.</th>
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<tbody>
<tr>
<td>4</td>
<td>Valve</td>
<td>NBR</td>
<td>30083 AQ1500</td>
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<td></td>
<td></td>
<td></td>
<td>30093 AQ1510</td>
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<tr>
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<td></td>
<td></td>
<td>30073 AQ2000</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>30053 AQ3000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>30063 AQ5000</td>
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<tr>
<td>5</td>
<td>O-ring</td>
<td>9 x 7 x 1</td>
<td>JISB2401P-7 CA40-1601 CA50-1602 CA60-1602</td>
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### Replacement Parts

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Material</th>
<th>Part no.</th>
<th>Model Port size</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>L4</th>
<th>L5</th>
<th>L6</th>
<th>L7</th>
<th>L8</th>
<th>L9</th>
<th>D</th>
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<td></td>
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<td>20</td>
<td>14</td>
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<td>15</td>
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<td>3</td>
<td>3.1</td>
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<td></td>
<td></td>
<td></td>
<td>AQ2000</td>
<td>45</td>
<td>40</td>
<td>10</td>
<td>45</td>
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<td>AQ3000</td>
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<td>85</td>
<td>56</td>
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<td>14</td>
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</tr>
</tbody>
</table>

### Design/Selection

**Caution**

1. In the following cases, insufficient exhaust or vibration may cause noise.
   - (a) With residual pressure or back pressure on the IN side.
   - (b) When the differential pressure between the IN and OUT sides is smaller than the minimum operating pressure.
   - (c) When the effective area of the IN side piping of AQ, or the solenoid valve, is smaller than AQ.

### Specific Product Precautions

Be sure to read before handling. Refer to front matters 58 and 59 for Safety Instructions and pages 412 to 414 for Flow Control Equipment Precautions.
Quick Exhaust Valve with One-touch Fittings

**Series AQ240F/340F**

**Space-saving**
Rectilinear IN-OUT tubing connections
- With One-touch fittings and silencer
- With silencer
- Lightweight (Resin body)

**Specifications**

<table>
<thead>
<tr>
<th>Fluid</th>
<th>Air</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proof pressure</td>
<td>1.5 MPa</td>
</tr>
<tr>
<td>Max. operating pressure</td>
<td>1 MPa</td>
</tr>
<tr>
<td>Min. operating pressure</td>
<td>0.1 MPa</td>
</tr>
<tr>
<td>Ambient and fluid temperature</td>
<td>−5 to 60°C (No freezing)</td>
</tr>
</tbody>
</table>

Applicable tubing material (1) Nylon, Soft nylon, Polyurethane

**Note 1)** Use caution regarding the max. operating pressure when soft nylon or polyurethane tubing is used. (Refer to pages 371 and 372 for details.)

**Model**

<table>
<thead>
<tr>
<th>Model</th>
<th>Applicable tubing O.D.</th>
<th>Effective area (mm²)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4 6 1/4&quot; IN→OUT OUT→EXH.</td>
<td></td>
</tr>
<tr>
<td>AQ240F-04-Ø</td>
<td>● 1.7 2.5</td>
<td></td>
</tr>
<tr>
<td>AQ240F-06-Ø</td>
<td>● 2.4 2.7</td>
<td></td>
</tr>
<tr>
<td>AQ340F-06-Ø</td>
<td>● 4 4</td>
<td></td>
</tr>
<tr>
<td>AQ240F-07-Ø</td>
<td>● 2.4 2.7</td>
<td></td>
</tr>
<tr>
<td>AQ340F-07-Ø</td>
<td>● 4 4</td>
<td></td>
</tr>
</tbody>
</table>

**Specific Product Precautions**
Be sure to read before handling. Refer to front matters 58 and 59 for Safety Instructions and pages 412 to 414 for Flow Control Equipment Precautions.

**Caution**
1. In the following cases, insufficient exhaust or vibration may cause noise.
   (a) With residual pressure or back pressure on the IN side.
   (b) When the differential pressure between the IN and OUT sides is smaller than the minimum operating pressure.
   (c) When the effective area of the IN side piping of AQ, or the solenoid valve, is smaller than AQ.

**Design/Selection**

**How to Order**

<table>
<thead>
<tr>
<th>AQ 2 4 0 F</th>
<th>06</th>
<th>06</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quick exhaust valve</td>
<td>Body size</td>
<td>In-line type</td>
</tr>
<tr>
<td>2</td>
<td>M5</td>
<td>1/8</td>
</tr>
<tr>
<td>3</td>
<td>1/8</td>
<td></td>
</tr>
</tbody>
</table>

**Exhaust port**

| 00 | With silencer |
| 04 | Applicable tubing O.D. ø4 |
| 06 | Applicable tubing O.D. ø6 |
| 07 | Applicable tubing O.D. ø1½" |

**With One-touch fittings**

**Warning**
With exhaust port fitting

**Note:** Brass parts are all electroless nickel plated.

**Circuit**

With silencer

With exhaust port fitting
Quick Exhaust Valve  
with One-touch Fittings  
**Series AQ240F/340F**

### Construction

**With silencer**

![Diagram of Quick Exhaust Valve with Silencer]

**With exhaust port fitting**

![Diagram of Quick Exhaust Valve with Exhaust Port Fitting]

### Dimensions

#### With silencer

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Material</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Body A</td>
<td>PBT</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Seat ring</td>
<td>Brass</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Valve seat</td>
<td>Brass</td>
<td>Electroless nickel plated</td>
</tr>
<tr>
<td>4</td>
<td>Silencer cover</td>
<td>Stainless steel</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Silencer</td>
<td>PVA sponge</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Spacer</td>
<td>POM</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Cassette</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Seal</td>
<td>NBR</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Valve</td>
<td>HNBR</td>
<td></td>
</tr>
</tbody>
</table>

#### With exhaust port fitting

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Material</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Body A</td>
<td>PBT</td>
<td>Electroless nickel plated</td>
</tr>
<tr>
<td>2</td>
<td>Seat ring</td>
<td>Brass</td>
<td>Electroless nickel plated</td>
</tr>
<tr>
<td>3</td>
<td>Valve seat</td>
<td>Brass</td>
<td>Electroless nickel plated</td>
</tr>
<tr>
<td>4</td>
<td>Elbow union body</td>
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<td>Spacer</td>
<td>POM</td>
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<td>6</td>
<td>Cassette</td>
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<tr>
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<td>Seal</td>
<td>NBR</td>
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<tr>
<td>8</td>
<td>Valve</td>
<td>HNBR</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>O-ring</td>
<td>NBR</td>
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</tr>
</tbody>
</table>

### Model Specifications

#### With Silencer

<table>
<thead>
<tr>
<th>Model</th>
<th>Tubing O.D. ød</th>
<th>D1</th>
<th>D2</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>M1</th>
<th>Weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AQ240F-04-00</td>
<td>1/4&quot;</td>
<td>9.3</td>
<td>10.0</td>
<td>39.2</td>
<td>5.2</td>
<td>14.3</td>
<td>12.9</td>
<td>5</td>
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<tr>
<td>AQ240F-06-00</td>
<td>1/4&quot;</td>
<td>11.6</td>
<td>10.0</td>
<td>40.7</td>
<td>6.2</td>
<td>15.4</td>
<td>13.7</td>
<td>6</td>
</tr>
<tr>
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<td>11</td>
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<tr>
<td>AQ240F-07-00</td>
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#### With Exhaust Port Fitting

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<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>L4</th>
<th>M1</th>
<th>M2</th>
<th>Weight (g)</th>
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<tbody>
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</tr>
<tr>
<td>AQ240F-06-06</td>
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<td>40.7</td>
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<td>13.7</td>
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<tr>
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<td>44.8</td>
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<td>19.6</td>
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