Series 1 and 3

1/8" Ported Manually Operated Valves

3-way/2-position, 5-way/2-position and 5-way/3-position

Ports 1/8" NPTF

The Series 1 manual valves (1/8", 3-way/2-position and 5-way/2-position) and the Series 3 manual valves (1/8", 3-way/2-position, 5-way/2-position and 5-way/3-position) are available with actuators designed to satisfy different needs. For series 3, the 3-way/2-position valves are normally closed when P is the inlet; they can also be normally open when R is the inlet. They can be operated with vacuum down to -.9 bar (28" Hg). Additionally, the series 3 valves can be supplied with 2 different pressures into ports 3 and 5 if a cylinder requires different extend and retract forces. The series 1 valves offer a more rugged, compact design with steel operator interfaces.

### TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Valve group</th>
<th>3-way/2-position, 5-way/2-position, 5-way/3-position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>Spool type Series 3, Poppet type Series 1</td>
</tr>
<tr>
<td>Mounting</td>
<td>Mounting holes in valve body</td>
</tr>
<tr>
<td>Materials</td>
<td>Anodized body, Stainless steel spool, Buna-N seals, Brass Poppet (Series 1)</td>
</tr>
<tr>
<td>Threaded port sizes</td>
<td>1/8&quot; NPTF</td>
</tr>
<tr>
<td>Installation</td>
<td>Manifold, or single panel mount</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>32°F - 175°F, (dry air necessary down to _4° F)</td>
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<tr>
<td>Fluid</td>
<td>Filtered air (25 micron or less recommended)</td>
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<tr>
<td>Lubricant</td>
<td>Not required; otherwise, only oil compatible with Buna-N, ( 3° - 10° E) (ISOVG32 grade; 32 center strokes)</td>
</tr>
</tbody>
</table>

### PNEUMATIC DATA

| Operating pressure | 0 - 10 bar, (0 - 145 psia) (down to -.9 bar vacuum; 28" Hg with series 3) |
| Nominal pressure | 6 bar, (87 psi) |
| Nominal flow | *Qn Series 3: 1/8" = 700 NL/min. (24.7 SCFM) |
| | Series 1: 1/8" = 500 NL/min. (17.65 SCFM) |
| Nominal diameter | 1/8" = 5 mm |
| Cv Rating | Series 3: 1/8" = 0.73 |
| | Series 1: 1/8" = 0.52 |

*Qn flowrate (SCFM) determined with a supply pressure of 6 bar (87 psi), and with a pressure drop of 1 bar (14.5 psi).
** Soft-seal repair kits are available on request.
***Dimensions are in millimeters
The company reserves the right to vary models and dimensions without notice. These products are designed for industrial applications and are not suitable for sale to the general public.
Valves Mod. 338-990TF

Actuation Force at 87 psi = 4.04 lbf

Valves Mod. 358-990TF

Actuation Force at 87 psi = 4.04 lbf

Valves Mod. 338-895TF

Actuation Force at 87 psi = 7.9 lbf

Valves Mod. 358-895TF

Actuation Force at 87 psi = 7.9 lbf

<table>
<thead>
<tr>
<th>Mod.</th>
<th>Button Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>338-895TF</td>
<td>Black</td>
</tr>
<tr>
<td>338-896TF</td>
<td>Green</td>
</tr>
<tr>
<td>338-897TF</td>
<td>Red</td>
</tr>
</tbody>
</table>

*Buttons are anodized aluminum

Mod. Button Color
358-895TF Black
358-896TF Green
358-897TF Red

*Buttons are anodized aluminum

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**Valves Mod. 338-900TF and Mod. 338-905TF  \( \text{Cv} = .73 \)**

338-900TF Actuation Force at 87 psi = 1.35 lbf  
338-905TF Actuation Force at 87 psi = 7.9 lbf  
*Detent force can be adjusted by means of 5 spring-loaded screws on the side of handle interface

**Valves Mod. 358-900TF and Mod. 358-905TF  \( \text{Cv} = .73 \)**

358-900TF Actuation Force at 87 psi = 1.35 lbf  
358-905TF Actuation Force at 87 psi = 7.9 lbf  
*Detent force can be adjusted by means of 5 spring-loaded screws on the side of handle interface

**Valves Mod. 368-900TF  \( \text{Cv} = .73 \)**

Actuation Force at 87 psi = 1.35 lbf  
*Detent force can be adjusted by means of 5 spring-loaded screws on the side of handle interface

**Valves Mod. 368-905TF  \( \text{Cv} = .73 \)**

Actuation Force at 87 psi = 4.5 lbf  
*Detent force can be adjusted by means of 5 spring-loaded screws on the side of handle interface

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Valves Mod. 378-900TF  \( C_v = 0.73 \)

Actuation Force at 87 psi = 1.35 lbf
*Detent force can be adjusted by means of 5 spring-loaded screws on the side of handle interface

Valves Mod. 378-905TF  \( C_v = 0.73 \)

Actuation Force at 87 psi = 4.5 lbf
Valve Mod. 138-935TF

Actuating force at 6 bar = 38N (8.5 lbf)
Operating pressure = 0 - 10 bar (0 - 145 psi)
Flow rate = 500 NL/min. (17.6 SCFM)

Valve Mod. 138-900TF

Actuating force at 6 bar = 25N (5.6 lbf)
Operating pressure = 0 - 10 bar (0 - 145 psi)
Flow rate = 500 NL/min. (17.6 SCFM)

Valve Mod. 158-900TF

Actuating force at 6 bar = 45N (10.1 lbf)
Operating pressure = 0 - 10 bar (0 - 145 psi)
Flow rate = 500 NL/min. (17.6 SCFM)