Series 2
Manually Operated Console Minivalves

3/2 and 5/3-way
Ports M5 (10-32 UNF)
Cartridge ø 4 mm (5/32” O.D.)

The manually operated console valves come standard with a 22 mm diameter mounting aperture which consists of our own valves combined with manual devices. This feature means that all the manual devices, 22 in diameter, can be used. This series of miniature valves has been specially designed to satisfy all the application requirements of the controls industry, with particular attention being paid to the operating characteristics which are required from these components:
— Low actuating force=6N (1.35 lbs.)
— Short operational stroke
— Small dimensions
— Speed and accuracy of signal
— Reduced air consumption

The versatility of the manual range is expandable. It is possible to mount an electrical switch next to the miniature valve. In this case, the base piece Mod. 220-000 is required.

Note: Several additional push buttons, switches, lighted operators and electrical controls are available which integrate into this product line. Contact factory for details, lead time and part number codes.

**TECHNICAL SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Valve group</th>
<th>3-way/2-position, 5-way/3-position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>Poppet type</td>
</tr>
<tr>
<td>Mounting</td>
<td>On consoles, control panels or cabinets: bulkhead design</td>
</tr>
<tr>
<td>Materials</td>
<td>Anodized body, Brass poppet gate, Buna-N seals</td>
</tr>
<tr>
<td>Threaded port sizes</td>
<td>M5 (10-32 UNF) thread, or 4 mm OD cartridge (5/32” OD tube connect)</td>
</tr>
<tr>
<td>Installation</td>
<td>Bulkhead, or single panel mount</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>32°F - 175°F, (dry air necessary down to 4°F)</td>
</tr>
<tr>
<td>Fluid</td>
<td>Filtered air (25 micron or less recommended)</td>
</tr>
<tr>
<td>Lubricant</td>
<td>Not required. Otherwise, only oil compatible with Buna-N, (3° - 10° E) (approximate 32 center strokes viscosity), ISOVG32 grade</td>
</tr>
</tbody>
</table>
### PNEUMATIC DATA

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating pressure</td>
<td>2 - 10 bar (30 - 145 psi)</td>
</tr>
<tr>
<td>Nominal pressure</td>
<td>6 bar (87 psi)</td>
</tr>
<tr>
<td>Nominal flow</td>
<td>*Qn = 60 NL/min. (2.12 SCFM)</td>
</tr>
<tr>
<td>Nominal diameter</td>
<td>2.5 mm</td>
</tr>
<tr>
<td>Cv Rating</td>
<td>0.06</td>
</tr>
</tbody>
</table>

*Qn flow rate (SCFM) determined with a supply pressure of 6 bar (87 psi), and with a pressure drop of 1 bar (14.5 psi).

**Dimensions are in millimeters.

### CODING OF MINIVALVES

**SERIES 2**

**FUNCTION**
- 3 = 3/2 way normally closed
- 4 = 3/2 way normally open
- 8 = 5/3 way center open exhausting

**PORTS**
- 4 = cartridge ø 4 mm (5/32” 0.0)
- 5 = M5 (10-32 UNF)

**RESETTING**
- 5 = spring return
- 0 = stable
- 2 = latching-twist to release
- 54 = joystick †

**MODE OF OPERATION**
- 87 = 3 - position selector
- 89 = pushbutton
- 97 = palm-switch
- 90 = joystick †
- 99 = 2 - position selector
- 92 = foot pedal
- 904 = key 2 positions

* Note: The pilot devices shall be separated from the valve body
† Joystick codes must be matched together for part number

### Manually operated console minivalves

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>200-895</td>
<td>(ø 22 mm)</td>
<td>red-black</td>
</tr>
<tr>
<td>200-975</td>
<td>(ø 22 mm)</td>
<td>red</td>
</tr>
<tr>
<td>200-972</td>
<td>(ø 22 mm)</td>
<td>red</td>
</tr>
<tr>
<td>200-970</td>
<td>(ø 22 mm)</td>
<td>red</td>
</tr>
<tr>
<td>200-905</td>
<td>(ø 22 mm)</td>
<td>red</td>
</tr>
<tr>
<td>200-903</td>
<td>(ø 30 mm)</td>
<td>red</td>
</tr>
<tr>
<td>200-904</td>
<td>(ø 22 mm)</td>
<td>red</td>
</tr>
<tr>
<td>200-925</td>
<td>(ø 22 mm)</td>
<td>red</td>
</tr>
</tbody>
</table>
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.

**Manual Valves**

- **Minivalves Mod. 235-895 and Mod 234-895** $C_v = 0.06$
  
  (235-895 and 234-895).
  
  Actuation force at 6 bar = 7 in (1.5 lbs)

- **Minivalves Mod. 235-975 and Mod 234-975** $C_v = 0.06$
  
  (235-975 and 234-975).
  
  Actuation force at 6 bar = 7 in (1.5 lbs)

- **Minivalves Mod. 235-972 and Mod 234-972** $C_v = 0.06$
  
  (235-972 and 234-972).
  
  Actuation force at 6 bar = 7 in (1.5 lbs)

- **Minivalves Mod. 235-905 and Mod 234-905** $C_v = 0.06$
  
  (235-905 and 234-905).
  
  Actuation force at 6 bar = 7 in (1.5 lbs)

- **Minivalves Mod. 235-990 and Mod 234-990** $C_v = 0.06$
  
  (235-990 and 234-990).
Mod. 235-925 and Mod 234-925

Pedal Mod. 235-925 and Mod 234-925

Minivalves Mod. 235-000 and Mod 234-000 (Spare Parts)
Adapters Mod. 210-000 and Mod 220-000 (Spare Parts)

Joystick Mod. 234-9054

Minimum pressure = 2 bar (30 psi)
Note: Valve is composed of 4 pieces of Mod. 234-000, each actuated by 1 direction of joystick
Panel Assembly Guide

Adapter for standard 22mm operators to fit 30mm diam. panel openings

Optional electrical assembly with Normally Open/Closed contacts, lighted button, etc.

Contact factory for details, part number, and availability.