Application
Valve is designed for use in ANSI flanged piping systems to meet the needs of bi-directional high flow HVAC hydronic applications with 0% leakage. Typical applications include cooling tower bypass, primary flow change-over systems, and large air-handler coil control. Valve face-to-face dimensions comply with API 609 & MSS-SP-67. Completely assembled and tested, ready for installation.

Jobsite Note
Valve assembly should be stored in a weather protected area prior to installation. Reference the butterfly valve installation instruction for additional information.

<table>
<thead>
<tr>
<th>Flow/Cv</th>
<th>Cv 10°</th>
<th>Cv 20°</th>
<th>Cv 30°</th>
<th>Cv 40°</th>
<th>Cv 50°</th>
<th>Cv 60°</th>
<th>Cv 70°</th>
<th>Cv 80°</th>
<th>Cv 90°</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>89</td>
<td>188</td>
<td>408</td>
<td>727</td>
<td>1202</td>
<td>1903</td>
<td>2854</td>
<td>3136</td>
</tr>
</tbody>
</table>

Suitable Actuators
- Non-Spring: F7200L
- Electronic fail-safe: PRB(X) / PKRB(X)

Dimensions (Inches [mm])

When installing in Victaulic piping systems, use Victaulic 41 series flange nipples. 741 flanges not recommended without the use of adapter rings. L-Series butterfly valves are designed to be installed between ANSI 125/150 flat-faced, raised face, slip-on or weld-neck flanges. Do NOT use flange gaskets on L-Series butterfly valves.

Flow/Mounting Details

Technical Data
- Fluid: chilled or hot water, up to 60% glycol
- Flow characteristic: modified linear
- Controllable flow range: 90° rotation
- Valve Size [mm]: 8” [200]
- Pipe connection: for use with ANSI class 125/150 flanges
- Housing: Ductile cast iron ASTM A536
- Body finish: polyester powder coated
- Stem: 420 stainless steel
- Seat: EPDM
- Bearing: Steel, PTFE, Bronze
- Disc: 304 stainless steel
- Body Pressure Rating: ANSI Class Consistent with 125, 232 psi CWP
- ANSI Class: Consistent with 125
- Number of Bolt Holes: 8
- Lug threads: 3/4-10 UNC
- Close-off pressure ∆ps: 200 psi
- Rangeability Sv: 10:1
- Maximum Velocity: 12 FPS
- Cv: 3136
- Weight: 221.7 lb [81 kg]
- Fluid Temp Range (water): -4...250°F [-20...120°C]
- Leakage rate: 0%
- Servicing: maintenance-free

Report created, 02/27/2020 - Subject to change. © Belimo Aircontrols (USA), Inc.
F7200L Technical Data Sheet
Resilient Seat, 304 Stainless Steel Disc

Dimensions (Inches [mm])

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
</table>
Technical Data

Power Supply
24...240 VAC, -20% / +10%, 50/60 Hz,
24...125 VDC, -20% / +10%

Power consumption in operation
20 W

Power consumption in rest position
6 W

Transformer sizing
20 VA @ AC/DC 24 V (class 2 power source),
23 VA @ AC/DC 120 V, 52 VA @ AC 230 V

Electrical Connection
Terminal blocks, (PE) Ground-Screw

Overload Protection
electronic throughout 0...90° rotation

Input Impedance
1000 Ω

Angle of rotation
90°

Direction of motion motor
reversible with app

Position indication
top mounted domed indicator

Manual override
7 mm hex crank, supplied

Running Time (Motor)
35 s

Ambient humidity
max. 95% r.H., non-condensing

Ambient temperature
-22...122°F [-30...50°C]

Storage temperature
-40...176°F [-40...80°C]

Degree of Protection
IP66/67, NEMA 4X, UL Enclosure Type 4X

Housing material
die cast aluminium polycarbonate cover

Agency Listing
cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02,
CE acc. to 2014/30/EU and 2014/35/EU

Noise level, motor
68 dB(A)

Servicing
maintenance-free

Quality Standard
ISO 9001

Weight
13 lb [5.8 kg]

Auxiliary switch
2 x SPDT, 3 A resistive (0.5 A inductive) @
AC 250 V, one set at 10°, one adjustable
0...90°

Application
PR Series valve actuators are designed with an integrated linkage and visual position indicators. For outdoor applications, the installed valve must be mounted with the actuator at or above horizontal. For indoor applications the actuator can be in any location including directly under the valve.

Operation
The PR series actuator provides 90° of rotation and a visual indicator shows the position of the valve. The PR Series actuator uses a low power consumption brushless DC motor and is electronically protected against overload. A universal power supply is furnished to connect supply voltage in the range of AC 24...240 V and DC 24...125 V. Included is a smart heater with thermostat to eliminate condensation. Two auxiliary switches are provided; one set at 10° open and the other is field adjustable. Running time is field adjustable from 30...120 seconds by using the Near Field Communication (NFC) app and a smart phone.

†Use 60°C/75°C copper wire size range 12...28 AWG, stranded or solid. Use flexible metal conduit. Push the listed conduit fitting device over the actuator’s cable to butt against the enclosure. Screw in conduit connector. Jacket the actuators input wiring with listed flexible conduit. Properly terminate the conduit in a suitable junction box. Rated impulse Voltage 4000 V. Type of action 1. Control pollution degree 3.
Wiring Diagrams

- Meets cULus requirements without the need of an electrical ground connection.
- Universal Power Supply (UP) models can be supplied with 24 VAC up to 240 VAC, or 24 VDC up to 125 VDC.

- Disconnect power.
- Provide overload protection and disconnect as required.
- Two built-in auxiliary switches (2x SPDT), for end position indication, interlock control, fan startup, etc.
- Actuators may be controlled in parallel. Current draw and input impedance must be observed.

**WARNING! LIVE ELECTRICAL COMPONENTS!**

During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.

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### Universal Power Supply (UP) Models

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 to 240 VAC</td>
<td>Common, + Hot, Y1 Input CCW (open), Y2 Input CW (close)</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>24 to 125 VDC</td>
<td></td>
</tr>
</tbody>
</table>

### On/Off

- **N** Common
- **L** + Hot
- **Y1** Input CCW (open)
- **Y2** Input CW (close)
- **PE**

### Floating Point

- **N** Common
- **L** + Hot
- **Y1** Input CCW (open)
- **Y2** Input CW (close)
- **PE**

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### Auxiliary Switches

- S1 NC
- S2 NC
- S3 NO
- S4 NC
- S5 NC
- S6 NO

- 0° to 90° default 85°
- 10°