

**Brightech**<sup>®</sup>  
Liquid Control Solutions

An ISO 9001 Certified Company

## *Pneumatic / Motorized Control Valve*



**Accu-Flow**



**Flow Applications  
& Control Engineering company**

## PCV-77



### Introduction

Accu-Flow Series 77, Globe type, Single Seated, Top-guided, Single Spring & diaphragm actuated, throttling / on-off type Pneumatic Control Valve.

### Features

Top-guided Single Seated Control Valve Provides max. support to ensure plug Stability.

Quick change trim is provided as standard construction for easy maintenance as it is gasketed in to the valve body.

High Flow coefficient enable this model to handle large flow rates as well as a wide Selection of reduced size valve plug makes this model idel for handling small flows. Smooth internal contours make it excellent for controlling slurries and viscus fluid.

Class IV leakage is standard , optionally soft seating is provided for class VI leakage.

This model is available with direct [air to close ] and reverse [ air to open ] actuators.

Size Range : 25mm to 200mm

Pressure Rating : 150#, 300#, 600#

M.O.C. : Carbon Steel / Stainless Steel /Alloy Steel

Trims : Stainless Steel / Monel / Soft Seated.

Cherastricstic : Liner / Equal % / Quick Open / Metering Pin

End Connection : Flanged end

## PCV-79



### Introduction

Accu-Flow Series 79, Globe type, Single Seated , Top & Bottom -guided, Single Spring & diaphragm actuated, throttling / on-off type Pneumatic Control Valve.

### Features

Top & Bottom guiding extends range of applications by eliminating the side thrust effect of pressure drop across the plug.

This Valves are designed to control fluid flow at high pressure.

This model can be used in throttling or on-off services to handle air water , steam , gas , oil and other fluids in processes having wide flow range requirement. This design Provides tight shutoff capability for such processes.

Size Range : 25mm to 300mm

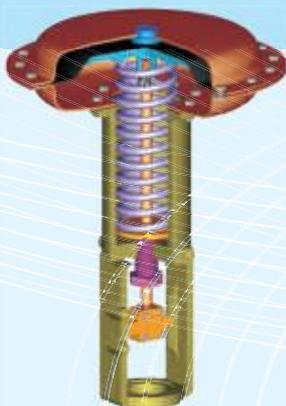
Pressure Rating : 150#, 300#, 600#, 900# & 1500#

M.O.C. : Carbon Steel / Stainless Steel /Alloy Steel

Trims : Stainless Steel / Monel / Soft Seated.

Charastricstic : Liner / Equal % / Quick Open / Friction Element

End Connection : Flanged end / Butt weld end



## 77-31 Direct Actuator

With direct acting valve trim provides air-to-close action. Air-to-open action is normally obtained by reversing the valve trim. Output from controller pressurizes top side of the diaphragm. When pressure inside the case exceeds initial spring setting, diaphragm plate forces stem downward.Used on all models of diaphragm control valves, especially those with top and bottom guided, reversible trim.

## PCV - 87



### Introduction

Accu-Flow Series 87, Globe type, Double Seated, Top & Bottom -guided, Single Spring & diaphragm actuated, throttling / on-off type Pneumatic Control Valve.

### Features

Top & Bottom guiding extends range of applications by eliminating the side thrust effect of pressure drop across the plug.

Double seated design permits control of higher differential pressure and increase valve capacity.

Air to open or Air to close valve action is obtained by either reversing the body and trim or reversing actuator. Valve body and trim can be easily reversed in the field without additional parts.

This model can be used in throttling or on-off services to handle air water, steam, gas, oil and other fluids in processes having wide flow range requirement.

Size Range : 25mm to 400mm

Pressure Rating : 150#, 300#, 600#, 900# & 1500#

M.O.C. : Carbon Steel / Stainless Steel /Alloy Steel

Trims : Stainless Steel / Monel / Soft Seated.

Characteristic : Liner / Equal % / Quick Open / %V

End Connection : Flanged end / Butt weld end ,

## PCV - 97



### Introduction

Accu-flow PCV-97, Globe type, Skirt and Top guided, Double seated, Single Spring and Diaphragm [ for Pneumatic ] / Motorized Operated, three-way Mixing & Diverting type Control Valve.

### Features

The model PCV-97, three-way valves are used mainly for mixing of two fluid media.

One medium enters the valve body above the upper seat ring, the second below the lower seat ring. Percentage of each medium is controlled by varying the position of the inner valve. As the inner valve approaches a seat ring the flowing area is reduced. Mixed media flows out of the valve through a common port.

It is also used as diverting [ by passed ] the excess flow of thermic fluid, Steam, Cooling water etc.

Size Range : 25mm to 150mm

Pressure Rating : 150#, 300#, 600#

M.O.C. : Carbon Steel / Stainless Steel /Alloy Steel

Trims : Stainless Steel / Monel / Soft Seated.

Characteristic : Liner / Equal % / Quick Open

End Connection : Flanged end

## Pneumatic Diaphragm Actuators



### 77-31 Reverse Actuator

Normally provides air-to-open action only. Output normally provides air-to-open action only. Output from controller pressurizes bottom side of diaphragm. When pressure inside the case exceeds initial spring setting, diaphragm plate forces stem upward. Used to obtained air-to-open action with valves having direct acting, top guided non-reversible trim. This type of actuator is also used when it is necessary to specify that reverse acting trim each to be removable from top side of Brightech model 77-87 valves.

## Optional Accessories

1. Extended Bonnet : For service temperatures from – 320° F to 32° F and from 450° F to 1000° F.
  2. Bellows seal : Provides positive seal at plug stem. For service to 750° F.
  3. Handwheels : For manual positioning of inner valve. Can also be used as a travel stop at any position between fully-open and fully-closed. Available in side and top mounted models.
  4. Positioners : Available in pneumatic and electro-pneumatic, Smart Positioner with Hart protocol type & ESD version
  5. Limit Switches : For remote indication.
  6. Solenoid valves : For providing on/off service of control valve.
  7. Robotrol : Mechanical Pressure Controller.
  8. Electrical Actuator : Single Phase/Three Phase - Throttling/On-Off - Weather Proof/Flame Proof with inbuilt positioner, Position transmitters
- Air Filter Regulator • Air Lock Relay • Volume Booster • Quick Exhaust

## Other types of Control Valves



Ball type  
Control Valve



Butterfly type  
Control Valve



Plug type  
Control Valve



Diaphragm type  
Control Valve



Automatic  
Control Valve

## Standard Followed

- ▶ Pressure Temperature Rating : ANSI B 16.34 :
- ▶ Flange Rating : ANSI B 16.5
- ▶ Face to Face : ANSI B16.10
- ▶ Testing : API 598
- ▶ Leakage Class : ANSI B 16.104
- ▶ Control Valve Sizing : ISA - S75.01
- ▶ Flow Capacity test : ISA - S75.02
- ▶ Leak test : ASME / FCI 70.2
- ▶ IBR

## Other Brightech Mfg. Range

- ▶ Safety & Thermal Relief Valve
- ▶ Pressure Reducing/Regulating Valve
- ▶ Pressure Reducing & De-Super Heating Station (PRDS)
- ▶ Gas Regulator (Self Actuating & Pilot Operated)
- ▶ Automatic Control Valve
- ▶ Teflon<sup>®</sup> Lined Products



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