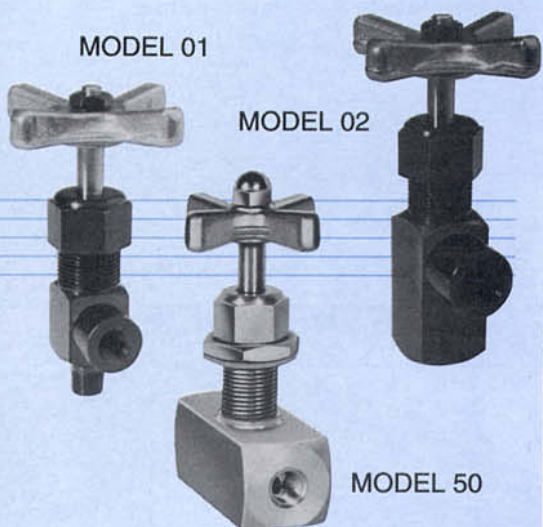


# Pneum-Trol HIGH PRESSURE ANGLE and GLOBE NEEDLE VALVES



- For Faster, Less Critical Needle Adjustments
- Easily Adjustable Under Pressure
- Available with Fine Metering (SM) Needle

Pneum-Trol Angle and Globe Needle Valves are ideal for use in special and general purpose applications requiring excellent flow characteristics as well as positive shut-off service, such as chemical processing, machine tool service lines.

Valves are available in globe, and angle mounted types for pressures up to 10,000 PSI (690 bar) (carbon steel). The stem has 16 threads per inch for fast shut-off. Globe and angle type valves can be furnished for panel mounting by the use of a panel-mounting kit. These valves open and close easily under pressure.

The (SM) needle affords excellent metering characteristics for industrial applications.

## SPECIFICATIONS

### Maximum Operating Pressure (Non-Shock Service)

Carbon Steel – 10,000 PS (690 bar)

### Minimum Burst Pressure

Carbon Steel – 20,000 PSI (1380 bar)

### Operating Temperature Range (Packing)

Buna N (Standard):

-40° to +212°F (-40° to +100°C)

### Needle

Standard 20° Included Angle

SM – Slotted Needle

### Materials

Body – Carbon Steel

Stem – 416 Stainless Steel (Steel Valves)

Packing – See Operating Temperature Range

Packing Gland – Brass (Steel Valves)

Handle – Die Casting

Panel Mounting Nut – Brass Nickel Plated

Threads – NPTF

## FLOW CHARACTERISTICS

### Flow Co-efficient (Cv Factor) – Fully Open Models 01 and 02 Angle Type

1/4" – 0.85      3/8" – 1.67

1/2" – 1.89      3/4" – 3.70

### Model 50 Globe Type

1/4" – 0.47      3/8" – 1.00

1/2" – 1.10      3/4" – 2.65

1" – 4.65

## PANEL MOUNTING HOLE DIMENSIONS

**NOTE:** Panel Mounting Kits Available.

See Price List for Part Number.

1/4"    25/32" (20.0)

3/8"    31/32" (24.5)

1/2"    31/32" (24.5)

3/4"    1-5/32" (29.5)

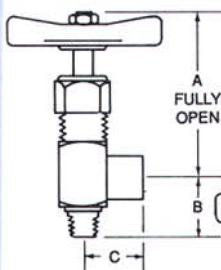
**NOTE:** Valves are of brazed construction. Steel – Copper Brazing.

## PANEL MOUNTING KITS (Sold Separately)

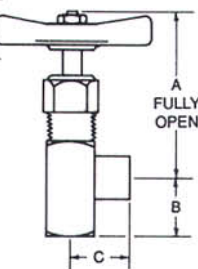
Available in Deluxe and Economy Kits in all sizes except 1" and 3/4".

## DIMENSIONS

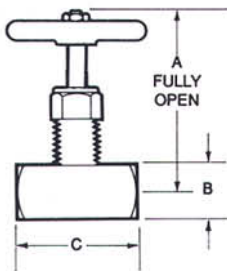
### ANGLE (01)



### ANGLE (02)



### GLOBE (50)



### Angle Pattern Model 01 Male-to-Female

Size	A	B	C	Orifice
1/4"	3-3/16 (81.0)	1-3/16 (30.2)	7/8 (22.3)	3/16 (4.8)
3/8"	3-13/16 (96.9)	1-7/16 (36.6)	1 (25.4)	9/32 (7.2)
1/2"	3-13/16 (96.9)	1-13/16 (46.1)	1-1/8 (28.6)	9/32 (7.2)

### Angle Pattern Model 02 Female-to-Female

Size	A	B	C	Orifice
1/4"	3-3/16 (81.0)	1-3/16 (30.2)	7/8 (22.3)	3/16 (4.8)
3/8"	3-13/16 (96.9)	1-1/4 (31.8)	1 (25.4)	9/32 (7.2)
1/2"	3-13/16 (96.9)	1-7/16 (36.6)	1-1/8 (28.6)	9/32 (7.2)
3/4"	5" (127.0)	1-5/8" (41.3)	1-3/4" (44.5)	7/16" (11.2)

### Globe Pattern Model 50 Female-to-Female

Size	A	B	C	Orifice
1/4"	3-1/16 (77.8)	7/8 (22.3)	2 (50.8)	3/16 (4.8)
3/8"	4-1/32 (102.4)	1 (25.4)	2-3/8 (60.4)	9/32 (7.2)
1/2"	3-15/16 (100.0)	1-1/4 (31.8)	2-7/8 (73.0)	9/32 (7.2)
3/4"	4-15/16 (125.5)	1-1/2 (38.1)	3-5/8 (92.1)	7/16 (11.2)
1"	6-1/8 (155.6)	2 (50.8)	4 (101.6)	9/16 (14.3)

( ) Parentheses = Millimeters

## ORDERING INFORMATION

### MODEL 01

Size	Standard
1/8"	S101S1
1/4"	S201S1
3/8"	S301S1
1/2"	S401S1

### MODEL 50

Size	Standard	Fine Metering	ISO 7/1 - RS**	ISO 7/1 - RP**
1/4"	S250S1	SM250S1	SB250S1	SBP250S1
3/8"	S350S1	—	SB350S1	SBP350S1
1/2"	S450S1	—	SB450S1	SBP450S1
3/4"	S650S1	—	SB650S1	SBP650S1
1"	S850S1	—	—	—

### MODEL 02

Size	Standard	Fine Metering	ISO 7/1 - RS**
1/4"	S202S1	SM202S1	SB202S1
3/8"	S302S1	—	SB302S1
1/2"	S402S1	—	SB402S1
3/4"	S602S1	—	SB602S1

\*\* Agrees with BS21:1995 and JIS B0203.