

**FC-500 Catalog**

**REGO<sup>®</sup>**

# **Flow Controls Catalog**



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# Stainless Steel Flow Controls

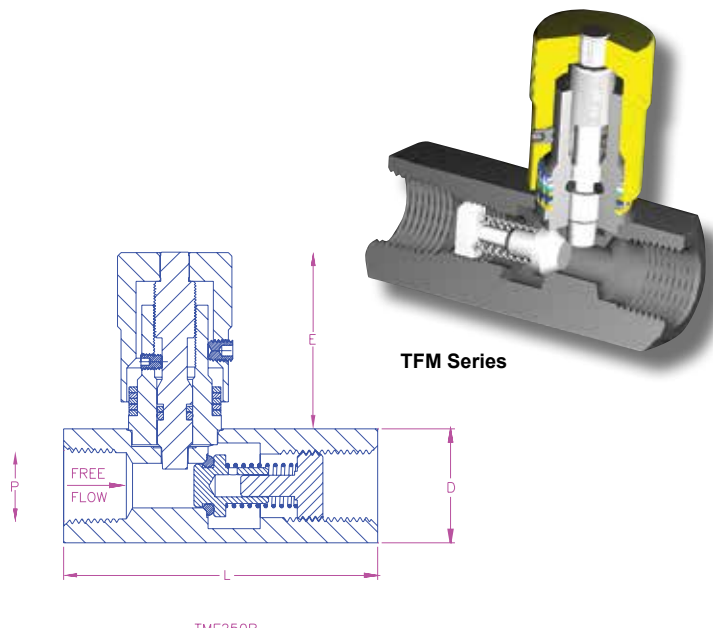
## TMF Series with Color Bands

### Application

Designed for extremely precise control of hydraulic and pneumatic actuators. Provides metered flow in one direction and free-flow in the reverse direction. Specifically designed for use in food processing industries and other highly corrosive environments.

### Features

- Easy-to-read color bands and micrometer knob for exact flow settings.
- Re-set repeatability within 1%.
- Precision-machined Double-Step stem with fine threading provides accurate control, even at extremely low flows.
- Rugged, all-metal construction — no plastic parts.
- Bleed holes in piston provide a cushion to soften closing impact and extend valve life.
- Brazed construction to withstand high pressure.
- 303 stainless steel body construction for maximum corrosion protection.



### Specifications

Maximum Operating Pressure..... 5000 PSIG  
 Temperature Range..... -20°F to +400°F  
 Cracking Pressure (Check Valve)..... 2 PSIG  
 Stem Taper..... 2° x 45° DOUBLE-STEP  
 Stem Pitch..... 40 Threads/Inch  
 CV Factor..... See Ordering Information

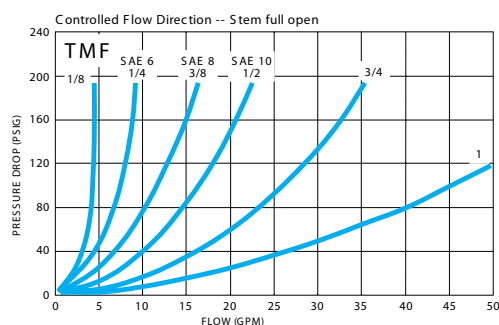
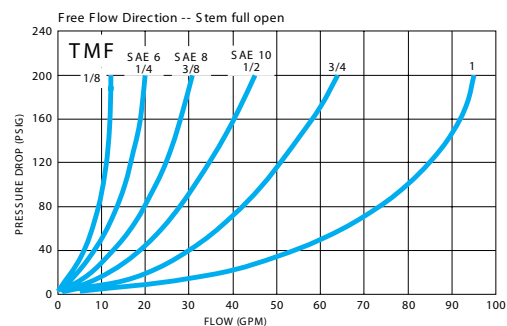
### Materials

Body..... 303 Stainless Steel  
 Piston..... Stainless Steel  
 Piston Seal..... Metal to Metal  
 Spring..... Stainless Steel  
 Stem..... Stainless Steel  
 Knob..... Nickel-Chrome Plated Brass  
 Color Bands..... Anodized Aluminum  
 Piston Retainer..... Stainless Steel  
 Set Screw..... Stainless Steel  
 Stem Packing..... Viton O-ring with "Teflon" Backup

### Ordering Information

| Part Number | Body Material   | Piston Seal | P Female        | D (In.) Square | L (In.) | E (In.) Max. | Orifice Diameter (In.) | CV (Free-Flow Direction) | CV (Controlled Flow Direction) |
|-------------|-----------------|-------------|-----------------|----------------|---------|--------------|------------------------|--------------------------|--------------------------------|
| TMF250SS    | Stainless Steel | Metal       | 1/4" NPT        | 13/16"         | 2 5/8"  | 1 3/8"       | 5/32"                  | 1.47                     | .47                            |
| TMF375SS    |                 |             | 3/8" NPT        | 1"             | 2 3/4"  | 1 23/32"     | 7/32"                  | 2.95                     | .72                            |
| TMF500SS    |                 |             | 1/2" NPT        | 1 1/8"         | 3 7/16" | 2 1/4"       | 5/16"                  | 4.50                     | 1.07                           |
| TMF750SS    |                 |             | 3/4" NPT        | 1 1/2"         | 3 3/8"  | 2 5/8"       | 3/8"                   | 5.41                     | 1.71                           |
| TMF1000SS   |                 |             | 1" NPT          | 2"             | 5"      | 3 3/8"       | 7/32"                  | 5.90                     | 2.45                           |
| TMF620SS    |                 |             | 9/16"-18 SAE 6  | 13/16"         | 3 1/8"  | 1 3/8"       | 5/32"                  | 1.47                     | .47                            |
| TMF820SS    |                 |             | 3/4"-16 SAE 8   | 1"             | 3 1/2"  | 1 23/32"     | 7/32"                  | 2.95                     | .72                            |
| TMF1020SS   |                 |             | 7/14"-14 SAE 10 | 1 1/8"         | 4"      | 2 1/4"       | 5/16"                  | 4.50                     | 1.07                           |

### Performance



# Flow Controls

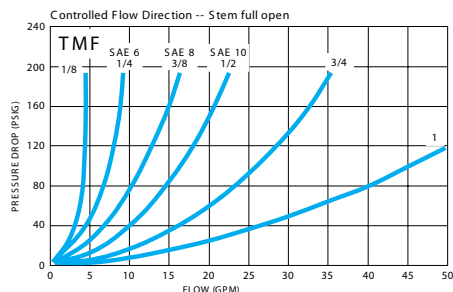
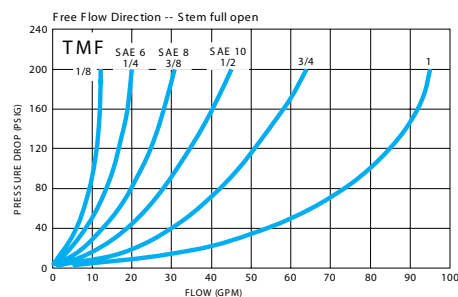
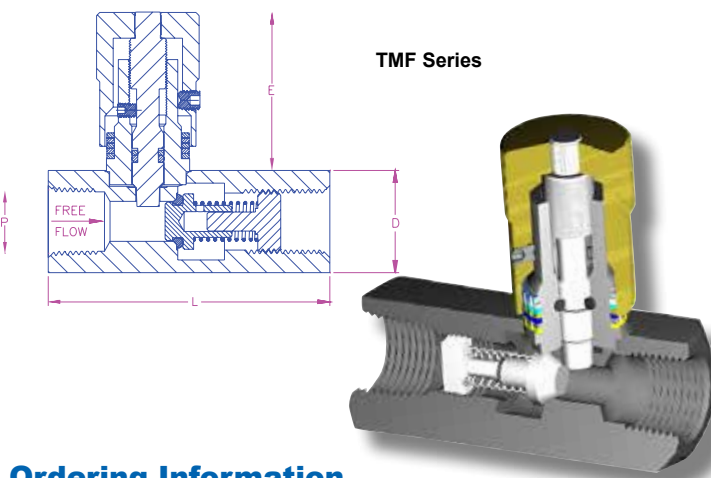
## TRU Micro TMF Series with Color Bands

### Application

Designed for extremely precise control of hydraulic and pneumatic actuators. Provides metered flow in one direction and free-flow in the reverse direction.

### Features

- Easy-to-read color bands and micrometer knob for exact flow settings.
- Re-set repeatability within 1%.
- Precision-machined Double-Step stem with fine threading provides accurate control, even at extremely low flows.
- Rugged, all-metal construction — no plastic parts.
- Bleed holes in piston provide a cushion to soften closing impact and extend valve life.
- Brazed construction to withstand high pressure.
- Soft-seat piston check, available on 1/4" and 1/8" brass sizes, assures leak-free air service. All others have metal to metal seat.
- Steel valves are zinc-plated AND sealed with colorless chromate for double corrosion protection. Also available with stainless steel body



### Specifications

Maximum Operating Pressure Steel..... 5000 PSIG  
 Maximum Operating Pressure Brass..... 2000 PSIG  
 Temperature Range..... -20°F to +400°F  
 Cracking Pressure (Check Valve)..... 2 PSIG  
 Stem Taper..... 2° x 45° DOUBLE-STEP  
 Stem Pitch..... 40 Threads/Inch  
 CV Factor..... See Ordering Information

### Materials

Body..... 12L14 Steel or ASTM B 16 Brass  
 Piston..... Stainless Steel  
 Piston Seal ... Viton on 1/4" and 3/8" Brass Models with soft seat option  
 (Metal to Metal seal on all others)  
 Spring..... Stainless Steel  
 Stem..... Stainless Steel  
 Knob..... Brass  
 Color Bands..... Anodized Aluminum  
 Piston Retainer..... Stainless Steel  
 Set Screw..... Steel (Black Oxide)  
 Stem Packing..... Viton O-ring with "Teflon" Backup

### Ordering Information

| Part Number | Body Material | Piston Seal | P Female        | D (In.) Square | L (In.) | E (In.) Max. | Orifice Diameter (In.) | CV (Free-Flow Direction) | CV (Controlled Flow Direction) |
|-------------|---------------|-------------|-----------------|----------------|---------|--------------|------------------------|--------------------------|--------------------------------|
| TMF250B     | Brass         | Metal       | 1/8 NPT         | 13/16"         | 2 5/8"  | 1 3/8"       | 5/32"                  | 1.47                     | .47                            |
| TMF250BL    |               |             | 1/4 NPT         |                |         |              |                        |                          |                                |
| TMF375B     |               | Viton       | 3/8 NPT         | 1"             | 2 3/4"  | 1 23/32"     | 7/32"                  | 2.95                     | .72                            |
| TMF375BL    |               |             |                 |                |         |              |                        |                          |                                |
| TMF500B     |               | Metal       | 1/2 NPT         | 1 1/8"         | 3 7/16" | 2 1/4"       | 5/16"                  | 4.50                     | 1.07                           |
| TMF750B     |               |             | 3/4 NPT         | 1 1/2"         | 3 7/8"  | 2 15/32"     | 3/8"                   | 5.41                     | 1.71                           |
| TMF250S     | Steel         | Metal       | 1/4 NPT         | 13/16"         | 2 5/8"  | 1 3/8"       | 5/32"                  | 1.47                     | .47                            |
| TMF375S     |               |             | 3/8 NPT         | 1"             | 2 3/4"  | 1 23/32"     | 7/32"                  | 2.95                     | .72                            |
| TMF500S     |               |             | 1/2 NPT         | 1 1/8"         | 3 7/16" | 2 1/4"       | 5/16"                  | 4.50                     | 1.07                           |
| TMF620S     |               |             | 9/16 - 18 SAE 6 | 13/16"         | 3 7/8"  | 1 3/8"       | 5/32"                  | 1.47                     | .47                            |
| TMF750S     |               |             | 3/4 NPT         | 1 1/2"         | 3 7/8"  | 2 15/32"     | 3/8"                   | 5.41                     | 1.71                           |
| TMF820S     |               |             | 3/4 - 18 SAE 6  | 1"             | 3 1/2"  | 1 23/32"     | 7/32"                  | 2.95                     | .72                            |
| TMF1000S    |               |             | 1 NPT           | 2"             | 5"      | 3 7/8"       | 5/8"                   | 5.90                     | 2.45                           |
| TMF1020S    |               |             | 7/8 - 14 SAE 10 | 1 1/8"         | 4"      | 2 1/4"       | 5/16"                  | 4.50                     | 1.07                           |

# Needle Valves

## TRU Micro TMN Series with Color Bands

### Application

Designed for extremely precise control of air and hydraulic fluids.  
Metered flow in both directions.

### Features

- Easy-to-read color bands and micrometer knob provide exact flow settings.
- Re-Set Repeatability within 1%.
- Precision machined DOUBLE-STEP stem with fine threading provides accurate control, even at extremely low flows.
- Rugged, all-metal construction – no plastic parts.
- Brazed construction to withstand high pressure.
- Steel valves are zinc-plated AND sealed with colorless chromate for double corrosion protection.



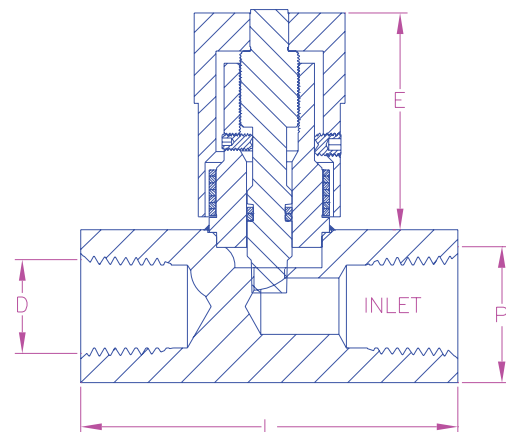
TMN Series

### Specifications

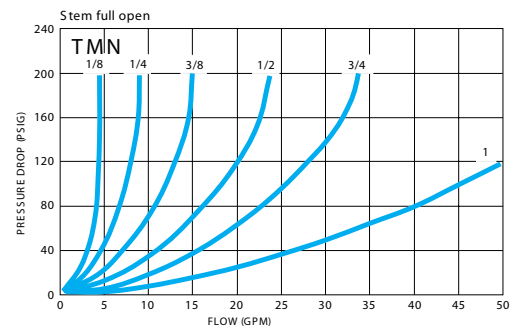
Maximum Operating Pressure (Steel) ..... 5000 PSIG  
Maximum Operating Pressure (Brass) ..... 2000 PSIG  
Temperature Range ..... -20°F to +400°F  
Stem Taper ..... 2° x 45° DOUBLE-STEP  
Stem Pitch ..... 40 Threads/Inch  
CV Factor ..... See Ordering Information

### Materials

Body ..... 12L14 Steel or ASTM B 16 Brass  
Stem ..... Stainless Steel  
Knob ..... Brass  
Color Bands ..... Anodized Aluminum  
Set Screw ..... Steel  
Stem Packing ..... Viton O-ring with "Teflon" Backup



### Performance



### Ordering Information

| Part Number | Body Material | P (NPT) Female | D (In.) Square | L (In.) | E (In.) Max. | Orifice Diameter (In.) | CV   |
|-------------|---------------|----------------|----------------|---------|--------------|------------------------|------|
| TMN125B     | Brass         | 1/8"           | 5/8"           | 1 1/2"  | 17/32"       | 1/8"                   | .25  |
| TMN250B     |               | 1/4"           | 13/16"         | 2"      | 1 3/8"       | 5/32"                  | .47  |
| TMN375B     |               | 3/8"           | 1"             | 2 1/2"  | 1 23/32"     | 7/32"                  | .72  |
| TMN500B     |               | 1/2"           | 1 1/8"         | 2 5/8"  | 2 1/2"       | 5/16"                  | 1.07 |
| TMN250S     | Steel         | 1/4"           | 13/16"         | 2"      | 1 3/8"       | 5/32"                  | .47  |
| TMN375S     |               | 3/8"           | 1"             | 2 1/2"  | 1 23/32"     | 7/32"                  | .72  |
| TMN500S     |               | 1/2"           | 1 1/8"         | 2 5/8"  | 2 1/4"       | 5/16"                  | 1.07 |
| TMN750S     |               | 3/4"           | 1 1/2"         | 3 1/4"  | 2 15/32"     | 3/8"                   | 1.71 |
| TMN1000S    |               | 1"             | 2"             | 4 1/4"  | 3 3/8"       | 5/8"                   | 2.45 |



# Needle Valves MN Series

## Application

The best value for precise control of air and hydraulic fluids where a calibrated knob is required.

## Features

- Precision-machined long tapered stem with fine threading provides exact control.
- Calibrated knob provides setting reference and does not drift from setting.
- Durability provided by rugged, all metal construction with no plastic parts.
- Steel valves are zinc-plated and sealed with "golden" chromate for double corrosion protection.



## Specifications

Maximum Operating Pressure..... 5000 PSIG Steel 2000 PSIG Brass  
 Temperature Range..... -20°F to +212°F  
 Stem Taper..... 8°  
 Stem Pitch..... 40 Threads/Inch  
 Cv Factor..... See Ordering Information

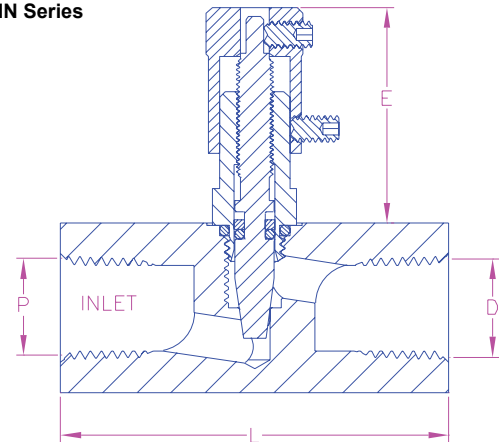
## Materials

Body..... 12L14 Steel or ASTM B 16 Brass  
 Stem..... Stainless Steel or Brass  
 Knob..... Brass  
 Chamber..... Steel  
 Set Screw..... Steel  
 Stem Packing..... Viton with "Teflon" Backup

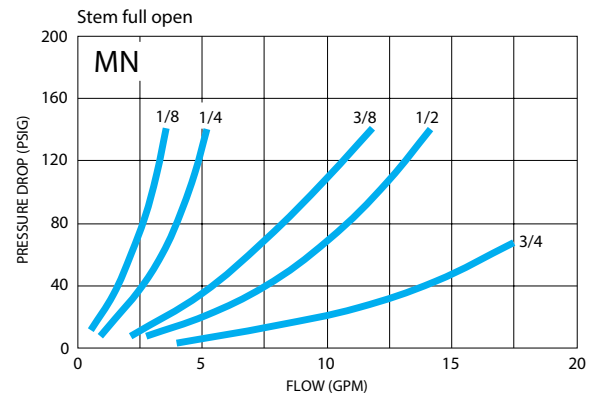
## Ordering Information

| Part Number | Body Material | P (NPT) Female | D (In.) Hex | L (In.)  | E (In.) Max. | Orifice Diameter (In.) | CV   |
|-------------|---------------|----------------|-------------|----------|--------------|------------------------|------|
| MN125B      | Brass         | 1/8"           | 1 1/16"     | 1 1/2"   | 1 1/4"       | .156                   | .25  |
| MN250B      |               | 1/4"           | 7/8"        | 2"       |              |                        | .39  |
| MN375B      |               | 3/8"           | 1 1/16"     | 2 1/4"   | 1 3/8"       | .265                   | .93  |
| MN500B      |               | 1/2"           | 1 5/16"     | 2 21/32" |              | .281                   | 1.12 |
| MN250S      | Steel         | 1/4"           | 7/8"        | 2"       | 1 1/4"       | .156                   | .39  |
| MN375S      |               | 3/8"           | 1 1/16"     | 2 1/4"   |              | .265                   | .93  |
| MN500S      |               | 1/2"           | 1 5/16"     | 2 21/32" | 1 3/8"       | .281                   | 1.12 |
| MN750S      |               | 3/4"           | 1 5/8"      | 3"       |              | .343                   | 2.00 |
| MN1000S     |               | 1"             | 1 7/8"      | 3"       | 2 1/8"       | .343                   | 2.00 |

MN Series



## Performance





# Needle Valves N Series

## Application

Economically designed for effective control of air and hydraulic fluids where frequent adjustment is not required.

## Features

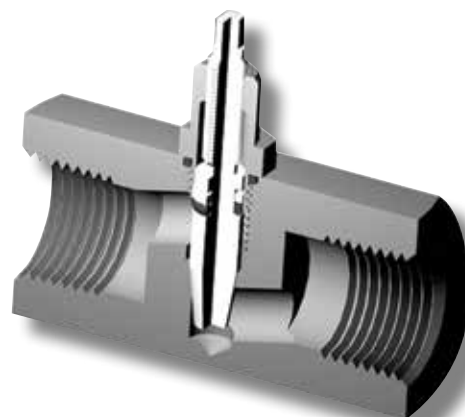
- Wrench flats provided to adjust setting, while resisting unwanted tampering.
- Steel valves are zinc plated and sealed with “golden” chromate for double corrosion protection.
- Durable, rugged, all metal construction — no plastic parts.

## Specifications

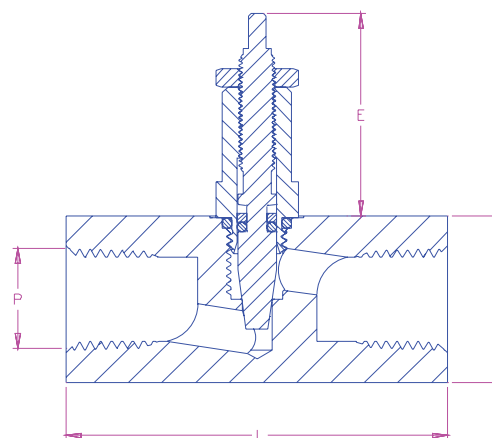
Maximum Operating Pressure..... 5000 PSIG Steel  
Maximum Operating Pressure..... 2000 PSIG Brass  
Temperature Range..... -20°F to +212°F  
CV Factor ..... See Ordering Information  
Stem Taper ..... 8°  
Stem Pitch ..... 40 Threads/Inch

## Materials

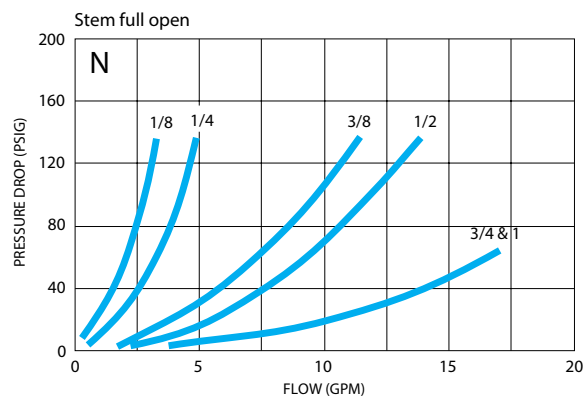
Body ..... 12L14 Steel or ASTM B 16 Brass  
Stem ..... Stainless Steel or Brass  
Chamber ..... Steel (Zinc Plated)  
Lock Nut ..... Brass  
Stem Packing ..... Viton O-Ring



N Series



## Performance



## Ordering Information

| Part Number | Body Material | P (NPT) Female | D (In.) Hex | L (In.)  | E (In.) Max. | Orifice Diameter (In.) | CV   |
|-------------|---------------|----------------|-------------|----------|--------------|------------------------|------|
| N125B       | Brass         | 1/8"           | 11/16"      | 1 1/2"   | 1 1/4"       | .156                   | .25  |
| N250B       |               | 1/4"           | 7/8"        | 2"       |              |                        | .39  |
| N375B       |               | 3/8"           | 1 11/16"    | 2 1/4"   | 1 3/8"       | .265                   | .93  |
| N500B       |               | 1/2"           | 1 5/16"     | 2 21/32" |              | .281                   | 1.12 |
| N250S       | Steel         | 1/4"           | 7/8"        | 2"       | 1 1/4"       | .156                   | .39  |
| N375S       |               | 3/8"           | 1 1/16"     | 2 1/4"   |              | .265                   | .93  |
| N500S       |               | 1/2"           | 1 5/16"     | 2 21/32" |              | .281                   | 1.12 |



# Needle Valves Mini-Line Series

## Application

Ideal for test bench and control panel applications. Designed for use with air, oil, water, vacuum service, and most chemicals.

## Features

- Compact design provides easy installation.
- Fine stem threading and long taper allow precise metering and leak-free shut-off.
- Internal stop prevents the stem from being accidentally unscrewed from the body.
- Rugged forged brass bodies withstand higher pressures.
- Available in globe and angle configurations.
- Valves come equipped for panel mounting.
- Some models available with stainless steel stem (ss suffix denotation).

## Specifications

Maximum Operating Pressure..... 5000 PSIG Hydraulic  
Maximum Operating Pressure..... 2000 PSIG Air  
Minimum Burst Pressure..... 8000 PSIG  
Temperature Range..... -40°F to +500°F  
Orifice Diameter..... .182"  
Stem Taper..... 15°  
Stem Pitch..... 28 Threads/Inch  
CV Factor..... See Ordering Information

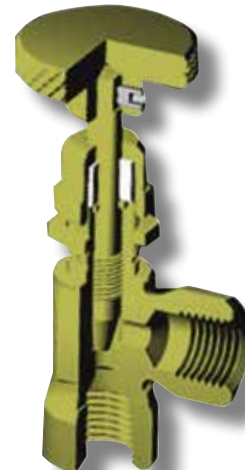
## Materials

Body..... ASTM B283 Brass  
Stem..... Brass  
Knob..... Brass  
Bonnet Nut..... Brass  
Panel Mount Nut..... Brass  
Set Screw..... Steel  
Stem Packing..... Teflon with Brass Gland

## Ordering Information

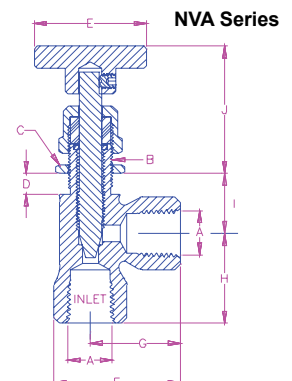
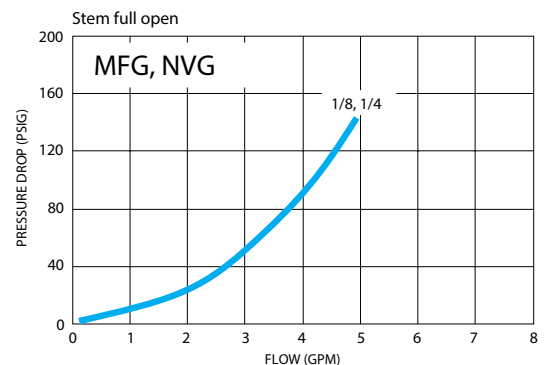
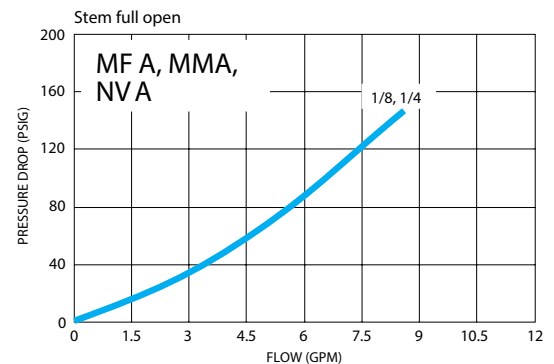
### NVA Series

| Part Number | A (NPT) | B (UNS-2B) Thd. Size | C (In.) Hex Size | D (In.) Max. | E (In.) | F (In.)  | G (In.) | H (In.) | I (In.) | J (In.) Open | J (In.) Closed | CV |
|-------------|---------|----------------------|------------------|--------------|---------|----------|---------|---------|---------|--------------|----------------|----|
| NVA125B     | 1/8"    | 1/2" - 27"           | 11/16"           | 3/32"        | 1 1/4"  | 1 5/32"  | 3/4"    | 3/4"    | 7/16"   | 1 31/32"     | 1 11/16"       | .7 |
| NVA250B     | 1/4"    |                      |                  | 7/32"        |         | 1 13/32" | 1"      | 1"      |         | 2 5/32"      | 1 19/32"       |    |



Needle Valve

### Performance



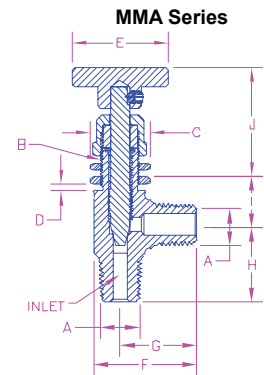
# Needle Valves Mini-Line Series

## Ordering Information

### MMA Series

| Part Number | A (NPT) | B (UNS-2B) Thd. Size | C (In.) Hex Size | D (In.) Max. | E (In.) | F (In.)  | G (In.) | H (In.) | I (In.) | J (In.) Open | J (In.) Closed | CV |
|-------------|---------|----------------------|------------------|--------------|---------|----------|---------|---------|---------|--------------|----------------|----|
| MMA250B     | 1/4"    | 1/2" - 27"           | 11/16"           | 7/32"        | 1 1/4"  | 1 11/32" | 1"      | 1"      | 7/16"   | 2 5/32"      | 1 19/32"       | .7 |
| HHA250B     | 1/4"    |                      |                  |              |         |          |         |         |         |              |                |    |

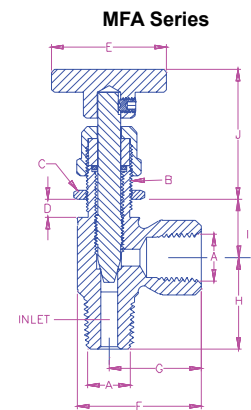
\* 1/4" Hose Barbs



## Ordering Information

### MFA Series

| Part Number | A<br>(NPT) | B<br>(UNS-2B)<br>Thd. Size | C<br>(In.)<br>Hex Size | D<br>(In.)<br>Max. | E<br>(In.) | F<br>(In.) | G<br>(In.) | H<br>(In.) | I<br>(In.) | J<br>(In.)<br>Open | J<br>(In.)<br>Closed | CV |  |  |  |  |
|-------------|------------|----------------------------|------------------------|--------------------|------------|------------|------------|------------|------------|--------------------|----------------------|----|--|--|--|--|
| MFA125B     | 1/8"       | 1/2" - 27                  | 11/16"                 | 7/32"              | 1 1/4"     | 1 7/32"    | 7/8"       | 7/8"       | 7/16"      | 2 5/32"            | 1 19/32"             | .7 |  |  |  |  |
| MFA250B     | 1/4"       |                            |                        |                    |            | 1 11/32"   | 1"         | 1"         |            |                    |                      |    |  |  |  |  |
| MFA250BSS   |            |                            |                        |                    |            |            |            |            |            |                    |                      |    |  |  |  |  |

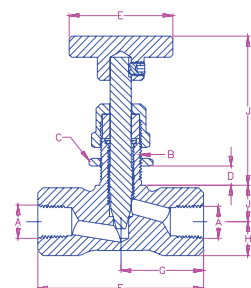


MFA SER

## Ordering Information

### NVG

| Part Number | A<br>(NPT) | B<br>(UNS-2B)<br>Thd. Size | C<br>(In.)<br>Hex Size | D<br>(In.)<br>Max. | E<br>(In.) | F<br>(In.) | G<br>(In.) | H<br>(In.) | I<br>(In.) | J<br>(In.)<br>Open | J<br>(In.)<br>Closed | CV |  |  |  |  |
|-------------|------------|----------------------------|------------------------|--------------------|------------|------------|------------|------------|------------|--------------------|----------------------|----|--|--|--|--|
| NVG125B     | 1/8"       | 1/2" - 27                  | 11/16"                 | 7/32"              | 1 1/4"     | 1 7/8"     | 15/16"     | 13/32"     | 7/16"      | 2 5/32"            | 1 25/32"             | .5 |  |  |  |  |
| NVG250B     | 1/4"       |                            |                        |                    |            | 2"         | 1"         |            |            |                    |                      |    |  |  |  |  |
| NVG250BSS   |            |                            |                        |                    |            |            |            |            |            |                    |                      |    |  |  |  |  |

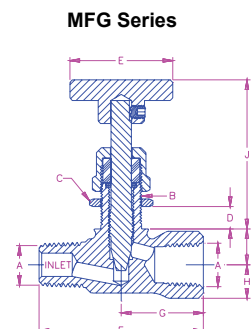


NVG SER

## Ordering Information

### MFG

| Part Number | A (NPT) | B (UNS-2B) Thd. Size | C (In.) Hex Size | D (In.) Max. | E (In.) | F (In.) | G (In.) | H (In.) | I (In.) | J (In.) Open | J (In.) Closed | CV |
|-------------|---------|----------------------|------------------|--------------|---------|---------|---------|---------|---------|--------------|----------------|----|
| MFG125BF    | 1/8"    | 1/2" - 27"           | 11/16"           | 7/32"        | 1 1/4"  | 1 7/8"  | 15/16"  | 1 3/32" | 7/16"   | 2 5/32"      | 1 25/32"       | .5 |
| MFG250BF    | 1/4"    |                      |                  |              |         | 2"      | 1"      |         |         |              |                |    |



MFG SER

# Needle Valves 2000 Series

## Application

Ideal for applications which require fine metering and shut-off.  
Designed for use with air, oil, water, steam, liquid fuels and most chemicals.

## Features

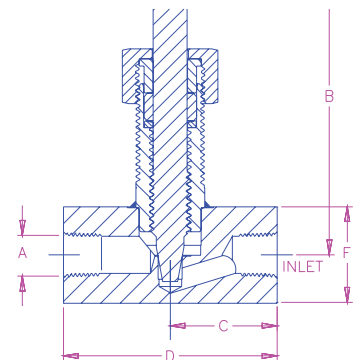
- Heavy duty brazed construction for added strength and safety up to 10,000 psi.
- Precision-machined stems and valve bodies provide perfect seat alignment for leak-free shut-off.
- Carbon steel valves are zinc plated and sealed with colorless chromate for double corrosion protection.
- Available in globe and angle configuration; in-line or panel mounted.
- Machined from carbon steel, or 303 stainless steel.

## Ordering Information

| Part Number | Body Material       | A (NPT) Female | B (In.) Max. | C (In.)  | D (In.)  | E (In.) | F (In.) Square | G (In.) | H (In.) Diam. | Orifice Diam. (In.) | CV   |
|-------------|---------------------|----------------|--------------|----------|----------|---------|----------------|---------|---------------|---------------------|------|
| FFG2001T    | Carbon Steel        | 1/8            | 3 1/2"       | 31/32"   | 1 15/16" | 2 1/2"  | 7/8"           | 3/8"    | 5/8"          | 7/22"               | .66  |
| FFG2002T    |                     | 1/4            |              | 1 31/32" | 2 1/16"  |         |                |         |               |                     |      |
| FFG2003T    |                     | 3/8            | 3 5/8"       | 17/16"   | 2 3/4"   | 4 1/4"  | 1 1/8"         | 7/8"    | 3/4"          | 9/16"               | .70  |
| FFG2004T    |                     | 1/2            |              |          |          |         |                |         |               |                     |      |
| FFG2006TA   |                     | 3/4            | 5 3/16"      | 1 13/16" | 3 5/8"   |         | 1 1/2"         |         | 1 1/2"        |                     | 3.90 |
| FFG2008TA   | 303 Stainless Steel | 1              | 5 5/16"      | 2 1/32"  | 4 1/16"  |         | 2"             |         | 7/8"          |                     | 5.22 |
| FFG2002SST  |                     | 1/4            | 3 1/2"       | 1 1/32"  | 2 1/16"  | 2 1/2"  | 7/8"           |         | 5/8"          | 7/32"               | .66  |
| FFG2003SST  |                     | 3/8            | 3 5/8"       | 17/16"   | 2 3/4"   |         | 1 1/8"         | 3/4"    |               |                     |      |
| FFG2004SST  |                     | 1/2            |              |          |          |         |                |         |               |                     |      |



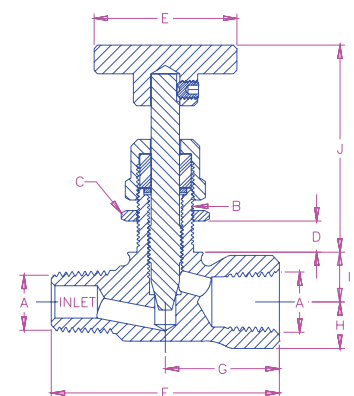
FFG Series



## Ordering Information

| Part Number | Body Material | A (NPT) Female | B (In.) Max. | C (In.) | D (In.)  | E (In.) | F (In.) Square | G (In.) | H (In.) Diam. | Orifice Diam. (In.) | CV   |        |  |
|-------------|---------------|----------------|--------------|---------|----------|---------|----------------|---------|---------------|---------------------|------|--------|--|
| MFG2002T    | Carbon Steel  | 1/4            | 3 1/2"       | 1 1/32" | 2 11/32" | 2 1/2"  | 7/8"           | 3/8"    | 5/8"          | .218                | .92  |        |  |
| MFG2003T    |               | 3/8            | 3 5/8"       | 1 3/8"  | 2 3/4"   |         | 1 1/8"         |         | 3/4"          |                     | 1.10 |        |  |
| MFG2004T    |               | 1/2            |              |         |          |         |                |         |               |                     |      | 2 5/8" |  |

MFG Series



## Specifications

Maximum Operating Pressure..... 10,000 PSIG Hydraulic  
Maximum Operating Pressure..... 2000 PSIG Air  
Minimum Burst Pressure ..... 20,000 PSIG  
Temperature Range..... -40°F to +500°F  
Stem Taper ..... 10 1/2° (1/8, 1/4, 3/8, 1/2" Sizes)  
Stem Taper ..... 15° (3/4, 1" Sizes)  
Stem Pitch ..... 16 Threads/Inch (1/8, 1/4, 3/8, 1/2" Sizes)  
Stem Pitch ..... 14 Threads/Inch (3/4, 1" Sizes)  
CV Factor ..... See Ordering Information

## Materials

|                    | T and TA Models         | SST and STA Models |
|--------------------|-------------------------|--------------------|
| Body .....         | 12L14 Carbon Steel..... | 303 Stainless      |
| Stem .....         | 303 Stainless .....     | 303 Stainless      |
| Bonnet Nut.....    | Carbon Steel.....       | 303 Stainless      |
| Handle .....       | Aluminum.....           | Aluminum           |
| Stem Packing ..... | Teflon .....            | Teflon             |

## Panel Mounting Kits:

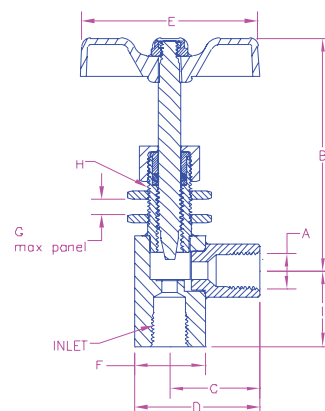
|                 |          |
|-----------------|----------|
| 1/8 to 1/4..... | KIT2002S |
| 3/8 to 1/2..... | KIT2004S |
| 3/4 to 1.....   | KIT2005S |

# Needle Valves 2000 Series

## Ordering Information

| Part Number | Body Material   | A (NPT) Female | B (In.) Max. | C (In.)  | D (In.)  | E (In.) | F (In.) sq. | G (In.) | H (In.) Diam. | I (In.)  | Orifice Diam. (In.) | CV   |
|-------------|-----------------|----------------|--------------|----------|----------|---------|-------------|---------|---------------|----------|---------------------|------|
| FFA2001T    | Carbon Steel    | 1/8            | 3 1/2"       | 1"       | 1 1/2"   | 2 1/2"  | 1"          | 3/8"    | 5/8"          | 1 1/16"  | 7/32"               | .92  |
| FFA2002T    |                 | 1/4            |              | 1 9/32"  | 2 25/32" |         |             |         |               |          |                     |      |
| FFA2003T    |                 | 3/8            |              | 1 17/32" | 2 5/32"  |         | 1 1/4"      |         | 3/4"          | 1 19/32" |                     | 1.10 |
| FFA2004T    |                 | 1/2            |              |          |          |         |             |         |               |          |                     |      |
| FFA2006TA   | 303             | 3/4            | 5 3/16"      | 1 27/32" | 2 23/32" | 4 1/4"  | 1 3/4"      | 7/8"    | 1 1/2"        | 1 15/16" | 9/16"               | 4.43 |
| FFA2002SST  | Stainless Steel | 1/4            | 3 1/2"       | 2 9/32"  | 1 25/32" | 2 1/2"  | 1"          | 3/8"    | 5/8"          | 1 1/16"  | 7/32"               | .92  |

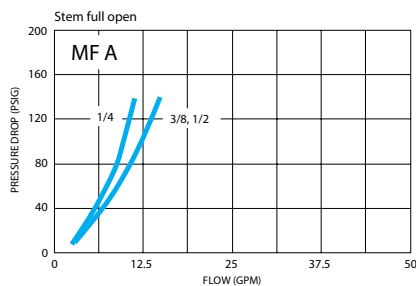
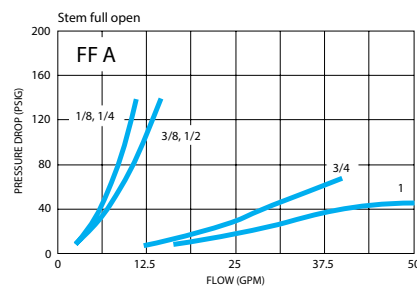
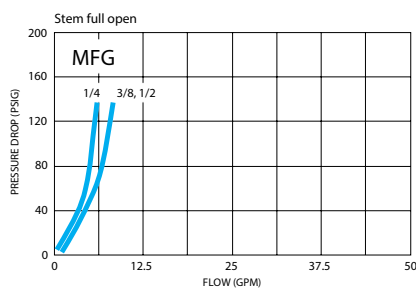
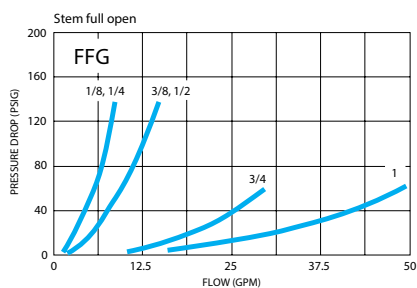
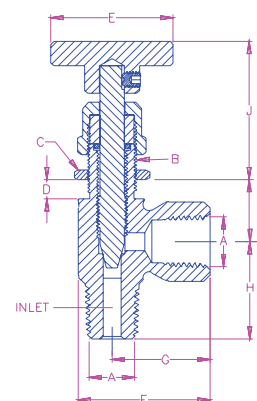
FFA Series



## Ordering Information

| Part Number | Body Material | A (NPT) Female | B (In.) Max. | C (In.)  | D (In.)  | E (In.) | F (In.) Square | G (In.) | H (In.) Diam. | I (In.) | Orifice Diam. (In.) | CV   |
|-------------|---------------|----------------|--------------|----------|----------|---------|----------------|---------|---------------|---------|---------------------|------|
| MFA2002T    | Carbon Steel  | 1/4            | 3 1/2"       | 1 9/32"  | 1 25/32" | 2 1/2"  | 1"             | 3/8"    | 5/8"          | 1 1/16" | 7/32"               | .92  |
| MFA2003T    |               | 3/8            | 3 5/8"       | 1 17/32" | 2 5/8"   |         | 1 1/4"         |         | 3/4"          | 1 3/4"  |                     | 1.10 |
| MFA2004T    |               | 1/2            |              |          |          |         |                |         |               |         |                     |      |

MFA Series



# Flow Controls MF Series

## Application

The best valve for precise control of hydraulic and pneumatic actuators where a calibrated knob is required. Provides metered flow in one direction and free-flow in the reverse direction.

## Features

- Precision-machined long tapered stem with fine threading provides exact control.
- Calibrated knob provides setting reference.
- Soft-seat piston check for leak-free service.
- No "draft" setting.
- Optional ball check for high cycle applications.
- Rugged, all-metal construction — no plastic parts.
- Steel valves are zinc-plated and sealed with "golden" chromate for double corrosion protection.

## Specifications

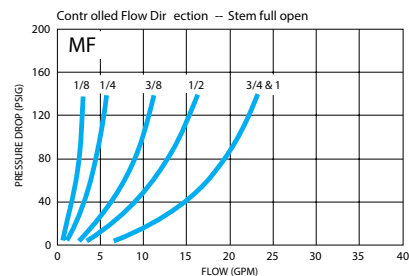
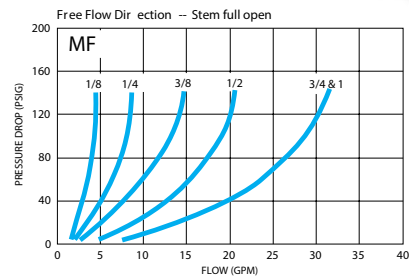
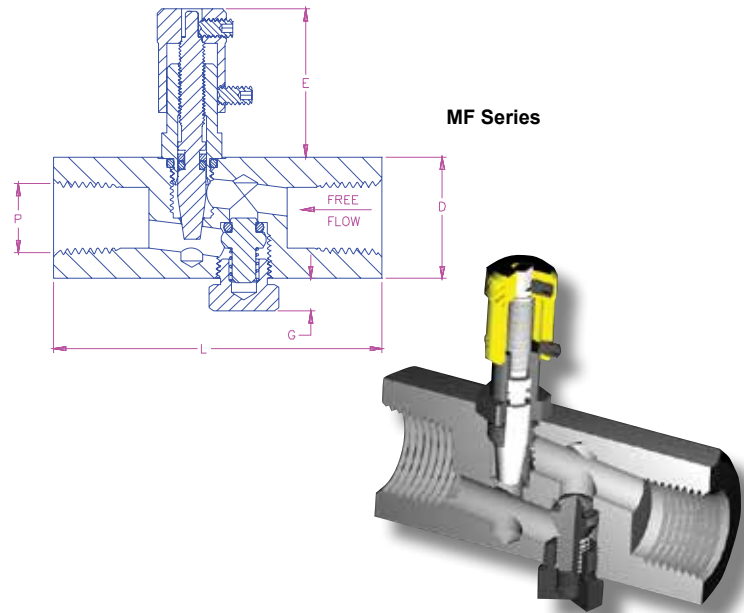
Max Operating Pressure Ball Check Models..... 5000 PSIG Steel  
Max Operating Pressure Ball Check Models..... 2000 PSIG Brass  
Max Operating Pressure Piston Check Models..... 2000 PSIG Brass  
Temperature ..... -20°F to +212°F  
Stem Taper ..... 8°  
Stem Pitch ..... 40 Threads/Inch (1/8, 1/4, 3/8, 1/2" Sizes)  
Stem Pitch ..... 24 Threads/Inch (3/4", 1" Size)  
CV Factor ..... See Ordering Information

## Materials

Body ..... 12L14 Steel or ASTM B 16 Brass  
Piston Assembly ..... Stainless Steel with Viton O-ring  
Spring ..... Stainless Steel  
Stem ..... Stainless Steel or Brass  
Knob ..... Brass  
Check Plug ..... Steel or Brass  
Chamber ..... Steel  
Set Screw ..... Steel  
Stem Packing ..... Viton O-ring with "Teflon" Backup

## Ordering Information

| Part Number | Body Material | Check Style | P (NPT) Female | D (In.) Hex | G (In.) | L (In.) | E (In.) Max. | Orifice Diameter (In.) | CV Free-Flow Direction) | CV (Controlled Flow Direction) | Cracking Pressure (PSIG) |
|-------------|---------------|-------------|----------------|-------------|---------|---------|--------------|------------------------|-------------------------|--------------------------------|--------------------------|
| MF125B      | Brass         | Piston      | 1/8"           | 11/16"      | 9/32"   | 1 3/4"  | 1 1/4"       | .156"                  | .32                     | .23                            | 10                       |
| MF250B      |               |             | 1/4"           | 7/8"        | 5/16"   | 2 3/8"  |              |                        | .70                     | .44                            | 7                        |
| MF375B      |               |             | 3/8"           | 11/16"      | 11/32"  | 2 3/4"  | 1 3/8"       | .256"                  | 1.14                    | .90                            | 8                        |
| MF500B      |               |             | 1/2"           | 15/16"      | 3/8"    | 3 3/16" |              | .281"                  | 1.74                    | 1.32                           | 5                        |
| MF750B      |               |             | 3/4"           | 1 5/8"      | 15/32"  | 3 9/16" |              | 1 7/8"                 | .343"                   | 2.91                           | 2.02                     |
| MF125BBC    |               | Ball        | 1/8"           | 11/16"      | 9/32"   | 1 3/4"  | 1 1/4"       | .156"                  | .32                     | .23                            | 11                       |
| MF250BBC    |               |             | 1/4"           | 7/8"        | 5/16"   | 2 3/8"  |              |                        | .70                     | .44                            | 7                        |
| MF375BBC    |               |             | 3/8"           | 11/16"      | 11/32"  | 2 3/4"  | 1 3/8"       | .256"                  | 1.14                    | .90                            | 3                        |
| MF500BBC    |               |             | 1/2"           | 15/16"      | 3/8"    | 3 3/16" |              | .281"                  | 1.74                    | 1.32                           | 1                        |
| MF250SBC    |               |             | Steel          | Brass       | 1/4"    | 7/8"    |              | 5/16"                  | 2 3/8"                  | 1 1/4"                         | .156"                    |
| MF375SBC    | 3/8"          | 11/16"      |                |             | 11/32"  | 2 3/4"  | 1 3/8"       | .265"                  | 1.14                    | .90                            | 3                        |
| MF500SBC    | 1/2"          | 15/16"      |                |             | 3/8"    | 3 3/16" |              | .281"                  | 1.74                    | 1.32                           | 1                        |
| MF750SBC    | 3/4"          | 1 5/8"      |                |             | 15/32"  | 3 9/16" | 1 7/8"       | .343                   | 2.91                    | 2.02                           | 3                        |
| MF1000SBC   | 1"            | 7/8"        |                |             |         |         |              |                        |                         |                                |                          |





# Flow Controls KLF Series

## Application

Designed for the precise control of hydraulic and pneumatic actuators. Provides metered flow in one direction and free-flow in the reverse direction.

## Features

- Precision-machined long tapered stem with fine threading provides exact control.
- Lock nut included to secure flow setting.
- Soft-seat piston check for leak-free service.
- Ball check option available for high cycle applications.
- Rugged, all-metal construction — no plastic parts.
- Steel valves are zinc-plated and sealed with "golden" chromate for double corrosion protection.

## Specifications

Max Operating Pressure Ball Check Models..... 5000 PSIG Steel  
Max Operating Pressure Ball Check Models..... 2000 PSIG Brass  
Max Operating Pressure Piston Check Models..... 2000 PSIG Brass  
Temperature Range..... -20°F to +212°F  
CV Factor .....See Ordering Information  
Stem Taper .....8°  
Stem Pitch ..... 40 Threads/Inch (1/8, 1/4, 3/8, 1/2" Sizes)  
Stem Pitch ..... 24 Threads/Inch (3/4", 1" Size)

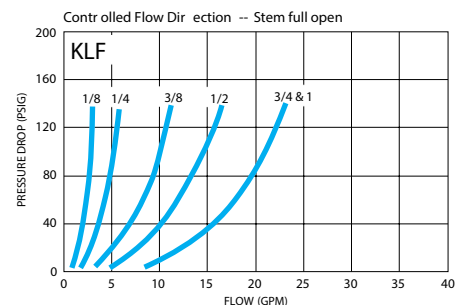
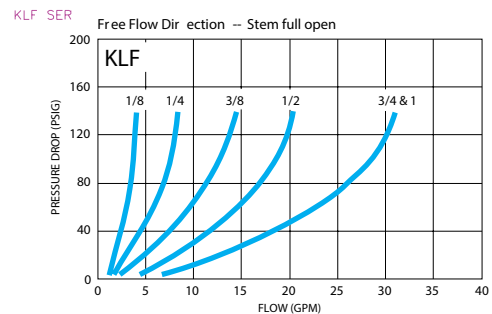
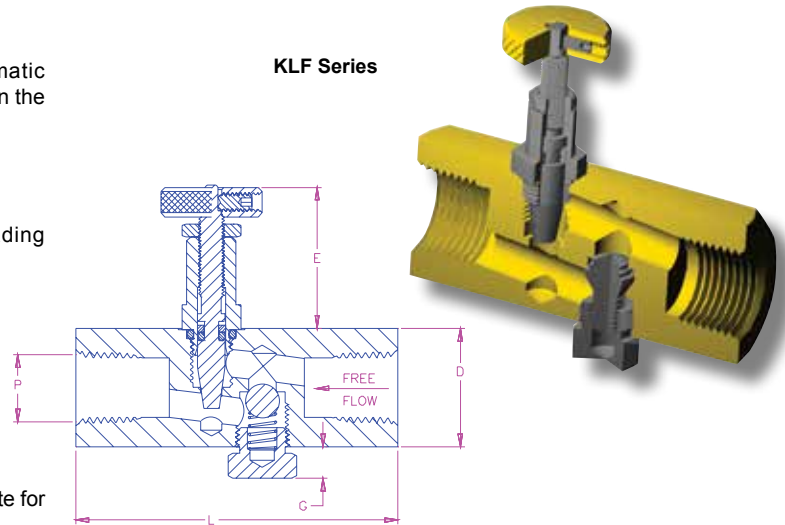
## Materials

Body ..... 12L14 Steel, ASTM B 16 Brass, or 303 Stainless Steel  
Piston Assembly ..... Stainless Steel with Viton O-ring  
Ball ..... Stainless Steel  
Spring ..... Stainless Steel  
Stem .....Stainless Steel or Brass  
Knob ..... Aluminum (1/8, 1/4, 3/8, 1/2" Sizes) Brass (3/4, 1" Sizes)  
Check Plug ..... Steel or Brass  
Chamber ..... Steel  
Set Screw ..... Steel (Black Oxide)  
Stem Packing ..... Viton O-ring with "Teflon" Backup  
Lock Nut ..... Brass

## Ordering Information

| Part Number | Body Material | Check Style      | P (NPT) Female | D (In.) Hex | G (In.) | L (In.) | E (In.) Max. | Orifice Diameter (In.) | CV Free-Flow Direction | CV (Controlled Flow Direction) | Cracking Pressure (PSIG) |
|-------------|---------------|------------------|----------------|-------------|---------|---------|--------------|------------------------|------------------------|--------------------------------|--------------------------|
| KLF125B     | Brass         | Piston           | 1/8"           | 11/16"      | 9/32"   | 1 3/4"  | 1 1/4"       | .156                   | .32                    | .23                            | 10                       |
| KLF250B     |               |                  | 1/4"           | 7/8"        | 5/16"   | 2 3/8"  |              |                        | .70                    | .44                            | 7                        |
| KLF375B     |               |                  | 3/8"           | 1 1/16"     | 11/32"  | 2 3/4"  | 1 3/8"       | .265                   | 1.14                   | .90                            | 8                        |
| KLF500B     |               |                  | 1/2"           | 1 5/16"     | 3/8"    | 3 3/16" |              |                        | 1.74                   | 1.32                           | 5                        |
| KLF750B     |               |                  | 3/4"           | 1 5/8"      | 15/32"  | 3 9/16" | 1 1/8"       | .343                   | 2.91                   | 2.02                           | 2                        |
| KLF1000B    |               |                  | 1"             | 1 7/8"      |         |         |              |                        |                        |                                |                          |
| KLF125BBC   | Brass         | Steel Ball Check | 1/8"           | 11/16"      | 9/32"   | 1 3/4"  | 1 1/4"       | .156                   | .32                    | .23                            | 11                       |
| KLF250BBC   |               |                  | 1/4"           | 7/8"        | 5/16"   | 2 3/8"  |              |                        | .70                    | .44                            | 7                        |
| KLF375BBC   |               |                  | 3/8"           | 1 1/16"     | 11/32"  | 2 3/4"  | 1 3/8"       | .265                   | 1.14                   | .90                            | 3                        |
| KLF500BBC   |               |                  | 1/2"           | 1 5/16"     | 3/8"    | 3 3/16" |              |                        | 1.74                   | 1.32                           | 1                        |
| KLF750BBC   |               |                  | 3/4"           | 1 5/8"      | 15/32"  | 3 9/16" | 1 1/8"       | .343                   | 2.91                   | 2.02                           | 3                        |
| KLF125SBC   |               |                  | 1/8"           | 11/16"      | 9/32"   | 1 3/4"  | 1 1/4"       | .156                   | .32                    | .23                            | 11                       |
| KLF250SBC   | Steel         | Steel Ball Check | 1/4"           | 7/8"        | 5/16"   | 2 3/8"  |              |                        | .70                    | .44                            | 7                        |
| KLF375SBC   |               |                  | 3/8"           | 1 1/16"     | 11/32"  | 2 3/4"  | 1 3/8"       | .265                   | 1.14                   | .90                            | 3                        |
| KLF500SBC   |               |                  | 1/2"           | 1 5/16"     | 3/8"    | 3 3/16" |              |                        | 1.74                   | 1.32                           | 1                        |
| KLF750SBC   |               |                  | 3/4"           | 1 5/8"      | 15/32"  | 3 9/16" | 1 1/8"       | .343                   | 2.91                   | 2.02                           | 3                        |
|             |               |                  |                |             |         |         |              |                        |                        |                                |                          |
|             |               |                  |                |             |         |         |              |                        |                        |                                |                          |

KLF Series



# Flow Controls F Series

## Application

Economically designed for effective control of hydraulic and pneumatic actuators where frequent adjustment is not required.

## Features

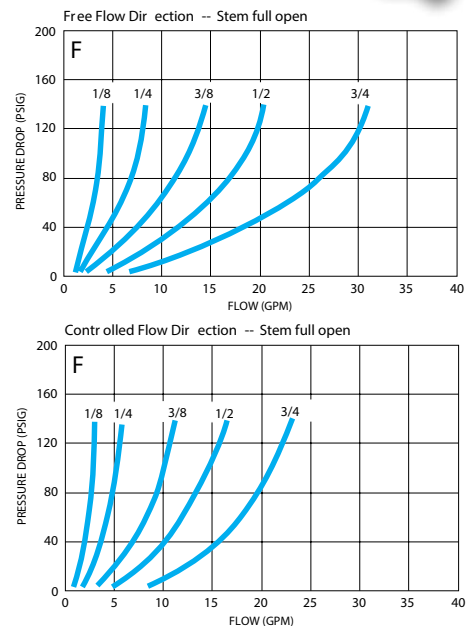
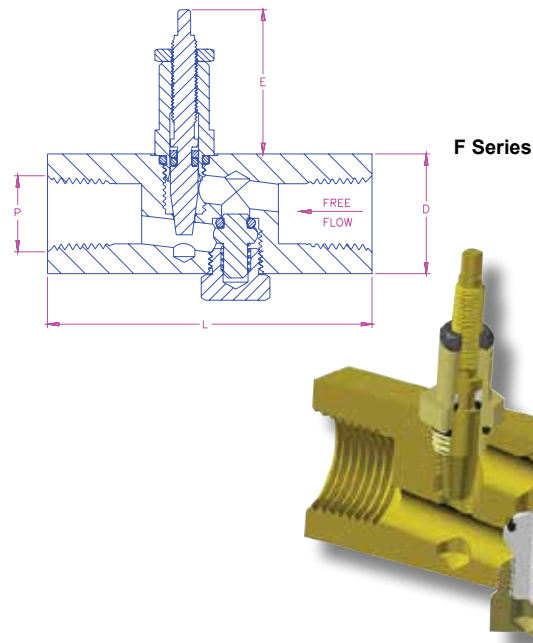
- Soft-seat piston check for leak-free service.
- Optional ball check for high cycle applications.
- Wrench flats provided to adjust setting, while resisting unwanted tampering.
- Steel valves are zinc plated and sealed with "golden" chromate for double corrosion protection.

## Specifications

Max Operating Pressure Ball Check Models..... 5000 PSIG Steel  
 Max Operating Pressure Ball Check Models..... 2000 PSIG Brass  
 Max Operating Pressure Piston Check Models..... 2000 PSIG Brass  
 Temperature Range..... -20°F to +212°F  
 CV Factor .....See Ordering Information  
 Stem Taper .....8°  
 Stem Pitch ..... 40 Threads/Inch (1/8, 1/4, 3/8, 1/2" Sizes)  
 Stem Pitch ..... 24 Threads/Inch (3/4", Size)

## Materials

Body ..... 12L14 Steel or ASTM B 16 Brass  
 Piston Assembly ..... Stainless Steel with Viton O-Ring  
 Ball ..... Stainless Steel  
 Spring ..... Stainless Steel  
 Stem ..... Stainless Steel or Brass  
 Knob ..... Aluminum (1/8, 1/4, 3/8, 1/2" Sizes) Brass (3/4, 1" Sizes)  
 Check Plug ..... Steel or Brass  
 Lock Nut ..... Brass  
 Stem Packing ..... Viton O-ring with "Teflon" Backup Gland  
 Chamber ..... Steel



## Ordering Information

| Part Number | Body Material | Check Style | P (NPT) Female | D (In.) Hex | G (In.) | L (In.) | E (In.) Max. | Orifice Diam. (In.) | CV (Free-Flow Direction) | CV (Controlled Flow Direction) | Cracking Pressure (PSIG) |
|-------------|---------------|-------------|----------------|-------------|---------|---------|--------------|---------------------|--------------------------|--------------------------------|--------------------------|
| F125B       | Brass         | Piston      | 1⁄8"           | 11⁄16"      | 9⁄32"   | 1¾"     | 1¼"          | .156                | .32                      | .23                            | 10                       |
| F250B       |               |             | 1⁄4"           | 7⁄8"        | 5⁄16"   | 2⅜"     |              |                     | .70                      | .44                            | 7                        |
| F375B       |               |             | 3⁄8"           | 11⁄16"      | 11⁄32"  | 2¾"     | 1⅜"          | .265                | 1.14                     | .90                            | 8                        |
| F500B       |               |             | 1⁄2"           | 15⁄16"      | 3⁄8"    | 3⅜"     |              | .281                | 1.74                     | 1.32                           | 5                        |
| F250BBC     |               | Steel       | Ball Check     | 1⁄4"        | 7⁄8"    | 5⁄16"   | 2⅜"          | 1¼"                 | .156                     | .70                            | .44                      |
| F375BBC     | 3⁄8"          |             |                | 11⁄16"      | 11⁄32"  | 2¾"     | 1⅜"          | .265                | 1.14                     | .90                            | 3                        |
| F500BBC     | 1⁄2"          |             |                | 15⁄16"      | 3⁄8"    | 3⅜"     |              | .281                | 1.74                     | 1.32                           | 1                        |
| F250SBC     | 1⁄4"          |             |                | 7⁄8"        | 5⁄16"   | 2⅜"     | 1¼"          | .156                | .70                      | .44                            | 7                        |
| F375SBC     | 3⁄8"          |             |                | 11⁄16"      | 11⁄32"  | 2¾"     | 1⅜"          | .265                | 1.14                     | .90                            | 3                        |
| F500SBC     | 1⁄2"          |             |                | 15⁄16"      | 3⁄8"    | 3⅜"     |              | .281                | 1.74                     | 1.32                           | 1                        |
| F750SBC     | 3⁄4"          |             |                | 15⁄32"      | 15⁄32"  | 39⁄16"  | 1⅞"          | .343                | 2.91                     | 2.02                           | 3                        |

# Check Valves C-Series

## Application

Especially designed for the control of hydraulic and pneumatic systems. Allows full-flow in one direction only.

## Features

- Efficient in line design provides high flow capability with low pressure drop.
- Soft seat poppet assures leak free service. Durable all metal poppets standard on all other models.
- Steel valves are zinc plated with "golden" chromate for double corrosion protection.
- Versatile design can be mounted in any position.

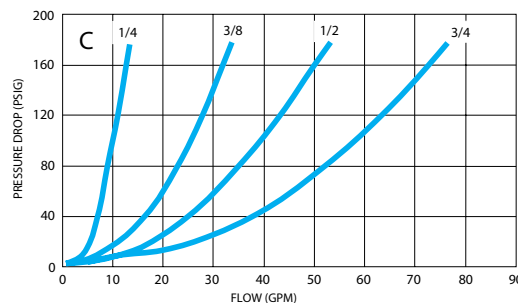
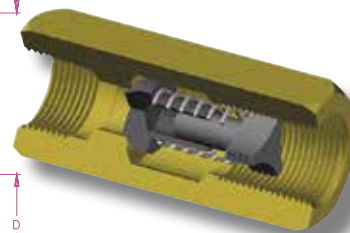
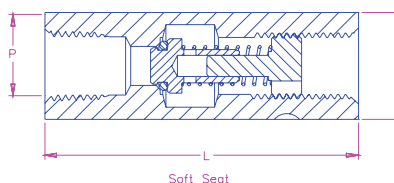
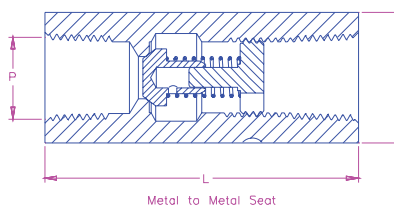
## Specifications

Maximum Operating Pressure.....See Ordering Information  
 Temperature Range..... -20°F to +212°F  
 CV Factor .....See Ordering Information  
 Cracking Pressure..... 5 PSIG Standard, call for other settings

## Materials

Body ..... ASTM B 16 Brass, 12L14 Steel, or 303 Stainless Steel  
 Spring ..... Stainless Steel  
 Piston..... Stainless Steel  
 Piston Seat - soft-..... Viton

C Series



## Ordering Information

| Part Number                  | Seating Option | Inlet/Outlet<br>Connections FNPT P | Length<br>L | Wrenching Hex Size<br>D | CV  | Maximum Operating<br>Pressure |
|------------------------------|----------------|------------------------------------|-------------|-------------------------|-----|-------------------------------|
| Stainless Steel Check Valves |                |                                    |             |                         |     |                               |
| C250SS                       | Metal          | 1/4"                               | 2 3/8"      | 13/16"                  | .87 | 2000 PSIG                     |
| C375SS                       |                | 3/8"                               | 2 1/2"      | 1"                      | 2.3 |                               |
| C250SSL                      | Soft           | 1/4"                               | 2 3/8"      | 13/16"                  | .87 | 250 PSIG                      |
| C375SSL                      |                | 3/8"                               | 2 1/2"      | 1"                      | 2.3 |                               |
| C500SSL                      |                | 1/2"                               | 3"          | 1 1/8"                  | 3.5 | 2000 PSIG                     |
| C750SSL                      |                | 3/4"                               | 3 5/8"      | 1 1/2"                  | 5.2 |                               |
| Brass Body Check Valves      |                |                                    |             |                         |     |                               |
| C250B                        | Metal          | 1/4"                               | 2 3/8"      | 13/16"                  | .87 | 2000 PSIG                     |
| C375B                        |                | 3/8"                               | 2 1/2"      | 1"                      | 2.3 |                               |
| C500B                        |                | 1/2"                               | 3"          | 1 1/8"                  | 3.5 |                               |
| C750B                        |                | 3/4"                               | 3 5/8"      | 1 1/2"                  | 5.2 |                               |
| C250BL                       | Soft           | 1/4"                               | 2 3/8"      | 13/16"                  | .87 | 250 PSIG                      |
| C375BL                       |                | 3/8"                               | 2 1/2"      | 1"                      | 2.3 |                               |
| C500BL                       |                | 1/2"                               | 3"          | 1 1/8"                  | 3.5 | 2000 PSIG                     |
| C750BL                       |                | 3/4"                               | 3 5/8"      | 1 1/2"                  | 5.2 |                               |
| Steel Check Valves           |                |                                    |             |                         |     |                               |
| C250S                        | Metal          | 1/4"                               | 2 3/8"      | 13/16"                  | .87 | 2000 PSIG                     |
| C375S                        |                | 3/8"                               | 2 1/2"      | 1"                      | 2.3 |                               |
| C500S                        |                | 1/2"                               | 3"          | 1 1/8"                  | 3.5 |                               |
| C750S                        |                | 3/4"                               | 3 5/8"      | 1 1/2"                  | 5.2 |                               |
| C250SL                       | Soft           | 1/4"                               | 2 3/8"      | 13/16"                  | .87 | 250 PSIG                      |
| C375SL                       |                | 3/8"                               | 2 1/2"      | 1"                      | 2.3 |                               |
| C500SL                       |                | 1/2"                               | 3"          | 1 1/8"                  | 3.5 | 2000 PSIG                     |
| C750SL                       |                | 3/4"                               | 3 5/8"      | 1 1/2"                  | 5.2 |                               |

# Check Valves BC & PC Series

## Application

Compact, versatile design for the control of air and liquids. Allows full-flow in one direction.

## Features

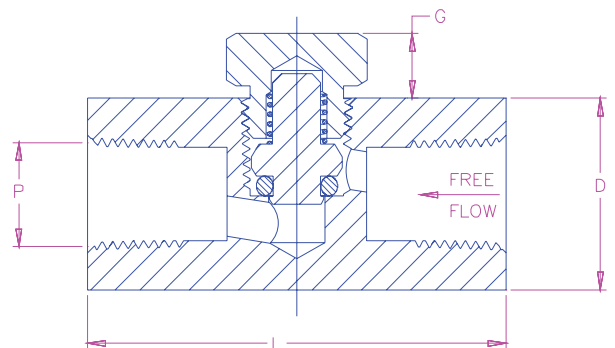
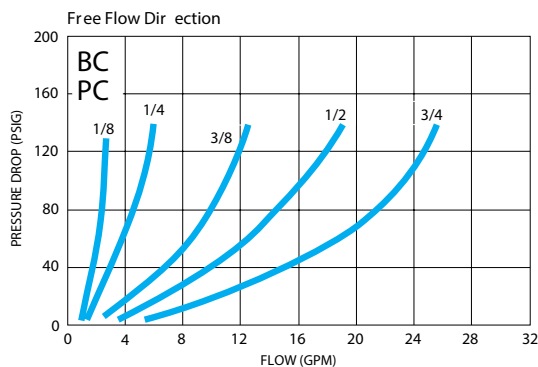
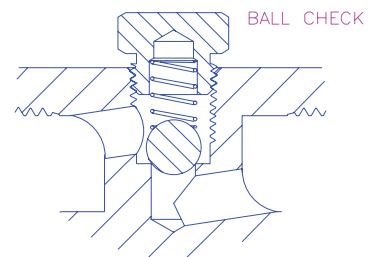
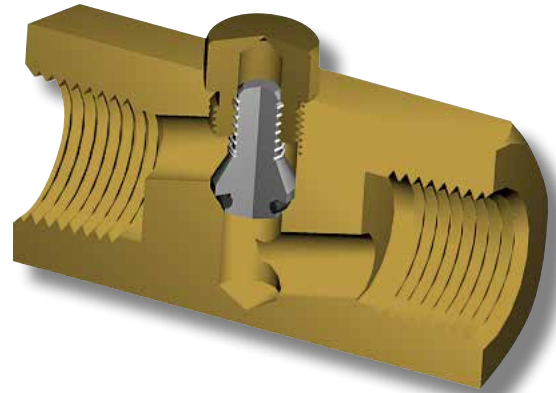
- Piston check design for leak-free air service.
- Ball check design for heavy duty liquid service.
- Low cracking pressures and smooth operation provide efficient service.
- Steel valves are zinc-plated and sealed with "golden" chromate for double corrosion protection.

## Specifications

Maximum Operating Pressure "BC" Models..... 5000 PSIG Steel  
Maximum Operating Pressure "BC" Models..... 2000 PSIG Brass  
Maximum Operating Pressure "PC" Models..... 2500 PSIG Steel  
Maximum Operating Pressure "PC" Models..... 2000 PSIG Brass  
Temperature Range..... -20°F to +212°F  
CV Factor ..... See Ordering Information

## Materials

Body ..... 12L14 Steel or ASTM B16 Brass  
Piston Assembly "PC" Models ..... Stainless Steel with Viton O-Ring  
Ball, "BC" Models..... Stainless Steel  
Spring ..... Stainless Steel  
Plug ..... Steel or Brass



## Ordering Information

| Part Number | Body Material | Check Style | P (NPT) Female | D (In.) Hex | L (In.)  | G (In.) | Orifice Diameter (In.) | CV   | Cracking Pressure (PSIG) |
|-------------|---------------|-------------|----------------|-------------|----------|---------|------------------------|------|--------------------------|
| PCI25B      | Brass         | Piston      | 1/8"           | 11/16"      | 1 1/2"   | 9/32"   | .203                   | .21  | 10                       |
| PC250B      |               |             | 1/4"           | 7/8"        | 2"       | 5/16"   |                        | .45  | 7                        |
| PC375B      |               |             | 3/8"           | 1 1/16"     | 2 1/4"   | 11/32"  |                        | 1.00 | 8                        |
| PC500B      |               |             | 1/2"           | 1 5/16"     | 2 21/32" | 3/8"    |                        | 1.60 | 1/2                      |
| BC125B      | Brass         | Ball        | 1/8"           | 11/16"      | 1 1/2"   | 9/32"   | .203                   | .21  | 11                       |
| BC250B      |               |             | 1/4"           | 7/8"        | 2"       | 5/16"   |                        | .45  | 7                        |
| BC375B      |               |             | 3/8"           | 1 1/16"     | 2 1/4"   | 11/32"  |                        | 1.00 | 3                        |
| BC500B      |               |             | 1/2"           | 1 5/16"     | 2 21/32" | 3/8"    |                        | 1.60 | 1                        |
| BC250S      | Steel         | Ball        | 1/4"           | 7/8"        | 2"       | 5/16"   | .203                   | .45  | 7                        |
| BC375S      |               |             | 3/8"           | 1 1/16"     | 2 1/4"   | 11/32"  |                        | 1.00 | 3                        |
| BC500S      |               |             | 1/2"           | 1 5/16"     | 2 21/32" | 3/8"    |                        | 1.60 | 1                        |
| BC750S      |               |             | 3/4"           | 1 5/8"      | 3"       | 15/32"  | .453                   | 2.21 | 3                        |

# Check Valves CMM Series

## Application

Space saving, in-line design for the control of air and liquids.

## Features

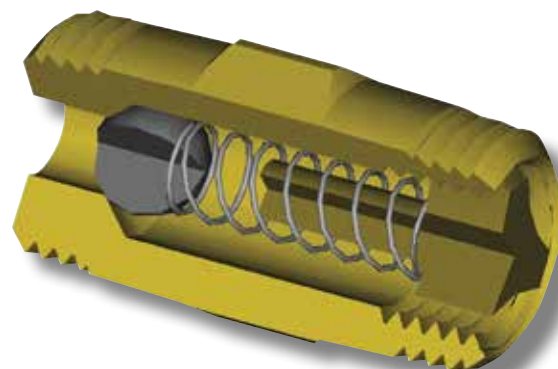
- Metal to Metal seal for leak-free liquid service.
- O-ring design for leak-free air service.
- Steel valves are zinc-plated and sealed with clear chromate for double corrosion protection.

## Specifications

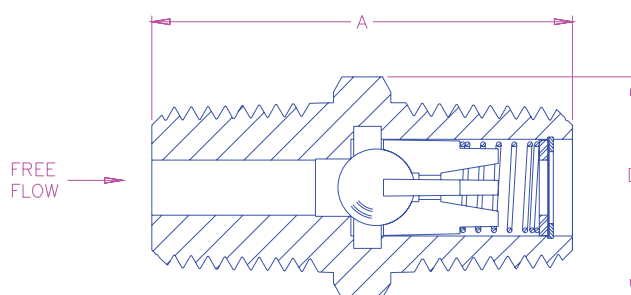
Maximum Operating Pressure.....See Ordering Information  
 Temperature Range..... -20°F to +400°F  
 Cracking Pressure.....See Ordering Information  
 CV Factor ..... See Ordering Information

## Materials

Body ..... ASTM B 16 Brass  
 Body ..... 12L14 Steel  
 Ball..... Stainless Steel  
 Retainer..... Brass or Steel  
 Spring ..... Stainless Steel



CMM Series



## Ordering Information

| Part Number | Body Material | Seal  | Port Size (NPT) Male | A (In.) | B (In.) Hex | Orifice Diameter (In.) | CV | Cracking Pressure (PSIG) | Maximum Pressure (PSIG) |
|-------------|---------------|-------|----------------------|---------|-------------|------------------------|----|--------------------------|-------------------------|
| CMM250B     | Brass         | Metal | 1/4"                 | 1 5/32" | 9/16"       | 3/16"                  | .5 | 7                        | 1000                    |
| CMM250B-L   |               | Viton |                      |         |             |                        |    |                          |                         |
| CMM375B     | Steel         | Metal | 3/8"                 | 1 3/8"  | 11/16"      | 1/4"                   | .8 | 3                        | 3000                    |
| CMM250S     |               | Viton |                      |         | 9/16"       | 3/16"                  | .5 | 7                        |                         |
| CMM375S     |               | Viton |                      |         | 11/16"      | 1/4"                   | .8 | 3                        |                         |



# Relief Valves PRV - Series

## Application

The PRV series of relief valves are ideal for air service. The valve will weep slightly at set pressure and achieve full lift and high flow by 110 percent of their rated set pressure.

## Features

- Bubble tight at 97% of set pressure.
- Easy to read color coded psig / bar labels.
- Unique tamper resistant and staked adjusting screw.
- Repeatable performance.
- 100% factory tested.
- Temperatures Range -320 to +212 F.
- Set pressures range from 17-600psi.

## Materials

|                                |                 |
|--------------------------------|-----------------|
| Body .....                     | Brass           |
| Spring .....                   | Stainless Steel |
| Seat Retainer.....             | Brass           |
| Adjusting Screw.....           | Brass           |
| Seat Disc (Below 140psi) ..... | Fluorosilicone  |
| Seat Disc (Above 140psi).....  | Teflon          |

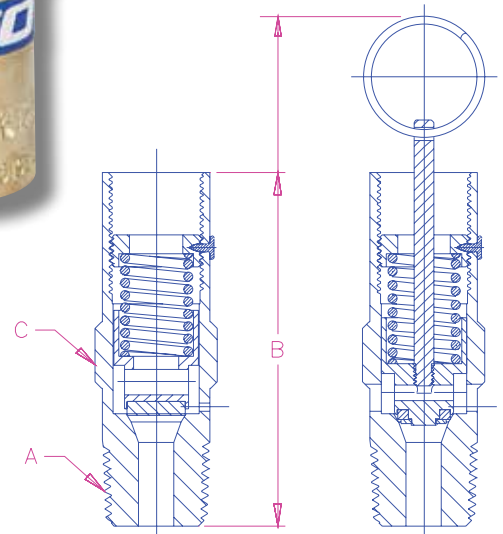
PRV Series also available with all stainless steel components

### Flow Data for Rego 1/4", 3/8" & 1/2" Relief Valves:

| Set Pressure<br>PSIG | Flow Pressure<br>PSIG | Flow Rate<br>SCFM Air |
|----------------------|-----------------------|-----------------------|
| 22                   | 24                    | 29                    |
| 50                   | 55                    | 52                    |
| 100                  | 110                   | 93                    |
| 150                  | 165                   | 134                   |
| 230                  | 253                   | 200                   |
| 350                  | 385                   | 298                   |
| 400                  | 440                   | 339                   |
| 450                  | 495                   | 380                   |
| 500                  | 550                   | 421                   |



PRV Series



**WARNING:** Inspection and maintenance of pressure relief valves is very important. Failure to properly inspect and maintain pressure relief valves could result in personal injuries or property damage. The useful safe service life of a pressure relief valve may be significantly affected by the service environment.

### Ordering Information

The PRV - series valves are ordered by specifying the basic relief valve part number and specifying with or without pull ring.

|          |        |      |                 |                  |
|----------|--------|------|-----------------|------------------|
| Example: | PRV    | 250B | R               | 350              |
|          | Series | Size | Ring or no ring | Pressure Setting |

## Ordering Information

| Part Number<br>Specify Relief<br>Setting "XXX" | Ring Pull | Body  | (NPT)<br>Male | B<br>Ht. | (I.G.)<br>Hex | Relief Setting                                |
|------------------------------------------------|-----------|-------|---------------|----------|---------------|-----------------------------------------------|
| *PRV250BRXXX                                   | Yes       | Brass | 1/4           | 3.0      | 7/8           | Available in<br>settings from 17-<br>600 psi. |
| PRV250BXXX                                     | No        |       |               | 2.6      |               |                                               |
| *PRV500BRXXX                                   | Yes       |       | 1/2           | 3.2      |               |                                               |
| PRV500BXXX                                     | No        |       |               | 2.8      |               |                                               |

\* (R) indicates a relief valve comes with a pull ring.

# Relief Valves ARV SERIES

## Application

Adjustable design to relieve liquid pressure above a predetermined setting. For use anywhere excessive pressure may harm system components.

## Features

- Space saving in line design.
- Retaining ring prevents adjusting screw from being backed out too far.
- Pop-off action does not "chatter" or "scream".
- Metal-to-metal seal assures long life.
- Suitable for oil, water and steam.

## Specifications

Operating Range ..... 400 to 5000 PSIG  
 Temperature Range..... -60°F to +450°F  
 CV Factor ..... .21  
 Orifice Diameter..... 3/32"

## Materials

Body ..... ASTM B16 Brass  
 Spring ..... 303 Stainless Steel  
 Piston..... Brass  
 Ball..... Stainless Steel  
 Adjusting Screw..... 302 Stainless Steel (1/4" Allen Wrench)  
 Retaining Ring..... Stainless Steel

## Ordering Information

| Part Number | A (NPT) Inlet Port | B (NPT) Outlet Port | C (In.) Length | D (In.) Hex |
|-------------|--------------------|---------------------|----------------|-------------|
| ARV250B     | 1/4" Male          | 3/8" Female         | 3 1/8"         | 7/8"        |

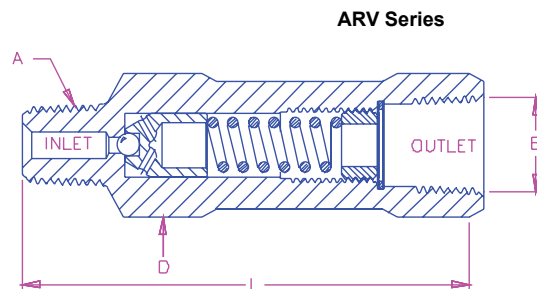
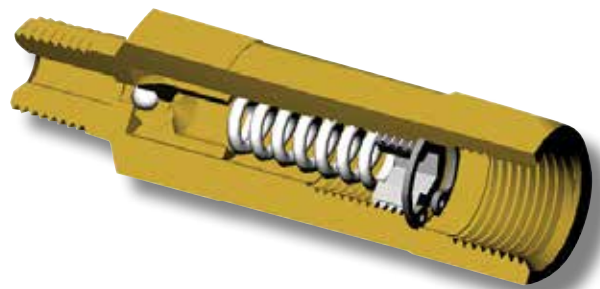
## Flow Data

Flow and pressure drop characteristics for valves manufactured by Engineered Controls International, Inc. are based on laboratory testing of random production samples and by an independent testing agency. The graphs are based on 150 SSU oil at the controlled temperature of 140°F. Flow coefficients (CV) have been provided for valves in this catalog. Calculating flow or pressure drop at other conditions is achieved with the following equation:

$$\text{Flow in GPM} = C_v \frac{\sqrt{P_1 - P_2}}{\sqrt{G_f}}$$

Where...

CV = Flow coefficient  
 P1 = Inlet pressure (PSIG)  
 P2 = Outlet pressure (PSIG)  
 Gf = Specific gravity of medium at operating temperature



# Compact Pneumatic Flow Controls With Push-In-Tube Connection

## Features

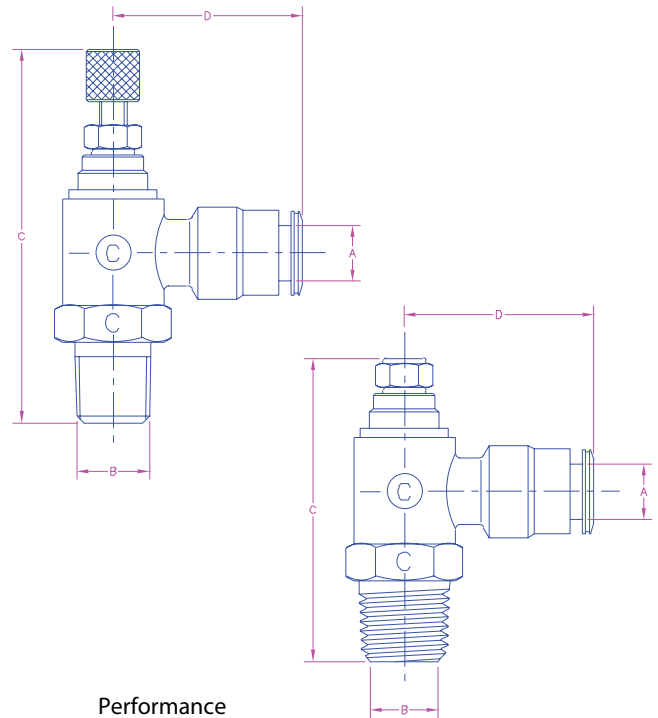
- Compact design permits mounting directly on pneumatic cylinder.
- Push-In-Tube connections allow convenient tube assembly without the need for tools or other components.
- Tubing easily installed by pushing into outlet and released by pressing collet and pulling.
- Available with convenient knurled knob or tamper resistant recessed screwdriver slot.
- Valves are nickel plated for corrosion protection.
- Unique cup seal provides positive seal during metered flow.
- Precision long-tapered stem provides accurate control.
- Tube Port rotates fully after mounting.

## Specifications

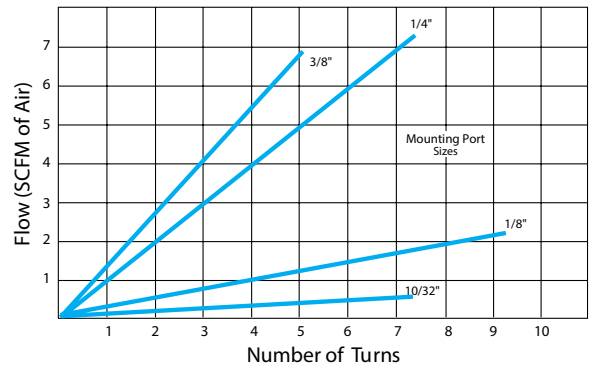
Operating Pressure ..... 15 to 150 PSIG  
 Temperature Range ..... +32° F to +176° F  
 Body Material ..... OT58 Brass Body with Nickel Plating  
 Seal Material ..... Buna-N

## Ordering Information

| Part Number | Actuation                       | A<br>Tube Port<br>O.D. | B<br>Mounting<br>Port | C<br>Height<br>(Valve Open) | D        |
|-------------|---------------------------------|------------------------|-----------------------|-----------------------------|----------|
| RAM 53-02   | Knurled<br>Knob                 | 5/32"                  | 1/8" NPT              | 1 1/8"                      | 7/8"     |
| RAM 4-02    |                                 | 1/4"                   |                       |                             | 1 5/16"  |
| RAM 4-04    |                                 | 3/8"                   |                       |                             | 1 11/16" |
| RAM 6-04    |                                 | 1/2"                   |                       |                             | 1 15/16" |
| RAM 6-06    | Recessed<br>Screwdriver<br>Slot | 5/32"                  | 1/8" NPT              | 1 1/2"                      | 7/8"     |
| RAS 53-02   |                                 | 1/4"                   |                       |                             | 1 5/16"  |
| RAS 4-02    |                                 | 3/8"                   |                       |                             | 1 11/16" |
| RAS 6-04    |                                 | 1/2"                   |                       |                             | 1 15/16" |
| RAS 6-06    |                                 |                        |                       |                             |          |



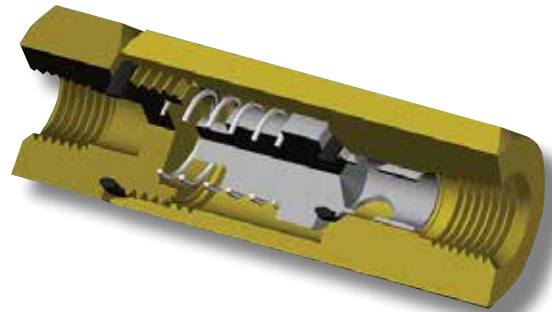
Performance



## CW-series check valves

## Features

- A check valve specifically designed and manufactured for the car wash/pressure washing industry.
- Unique two piece construction allows the user to dis-assemble the valve, clean and replace seals as necessary.
- Both valves which are available in 1/4" and 3/8"NPTF contain O-rings of Viton7 and Buna-N for long-lasting durability.
- Maximum operating pressure on each valve is 2000 psi.
- Cracking pressure is 5 psig.



## Ordering Information

| Valve Number | Material                  | Thread (Both Ends) | A<br>Length<br>(in) | B<br>Width<br>(in) |
|--------------|---------------------------|--------------------|---------------------|--------------------|
| CW250BL      | ASTM B 16<br>Brass        | 1/4 NPTF           | 3.03                | 1.00               |
| CW375BL      |                           | 3/8 NPTF           |                     |                    |
| CW250SSL     | 303<br>Stainless<br>Steel | 1/4 NPTF           |                     |                    |
| CW375SSL     |                           | 3/8 NPTF           |                     |                    |

# Limited Warranty and Limitation of Liability



## LIMITED WARRANTY

RegO warrants products and repair kits manufactured by it to be free from defects in materials and workmanship under normal use and service for a period of 12 months from the date of installation or operation or 18 months from the date of shipment from the factory, whichever is earlier. If within thirty days after buyer's discovery of what buyer believes is a defect, buyer notifies RegO thereof in writing, RegO, at its option, and within forty-five days, will repair, replace F.O.B. point of manufacture, or refund the purchase price of that part or product found by it to be defective. Failure of buyer to give such written notice within thirty days shall be deemed an absolute and unconditional waiver of any and all claims of buyer arising out of such defect.

This warranty does not extend to any product or part that is not installed and used in accordance with RegO's printed instructions, all applicable state and local regulations, and all applicable national standards, such as those promulgated by NFPA, DOT, CGA, and ANSI. This warranty does not extend to any product or part that has been damaged by accident, misuse, abuse or neglect, nor does it extend to any product or part which has been modified, altered, or repaired in the field.

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## LIMITATION OF LIABILITY

RegO's total liability for any and all losses and damages arising out of any cause whatsoever shall in no event exceed the purchase price of the products or parts in respect of which such cause arises, whether such cause be based on theories of contract, negligence, strict liability, tort or otherwise.

RegO shall not be liable for incidental, consequential or punitive damages or other losses. RegO shall not be liable for, and buyer assumes liability for, all personal injury and property damage connected with the handling, transportation, possession, further manufacture, other use or resale of products, whether used alone or in combination with any other products or material.

If RegO furnishes technical advice to buyer, whether or not at buyer's request, with respect to application, further manufacture or other use of the products and parts, RegO shall not be liable for technical advice and buyer assumes all risks of such advice and the results thereof.

NOTE: Some states do not allow the limitation or exclusion of incidental or consequential damages, so the above limitations or exclusions, wholly or partially, may not apply. The portions of this limited warranty and limitation of liability shall be considered severable and all portions which are not disallowed by applicable law shall remain in full force and effect.

## WARNING

All RegO products are mechanical devices that will eventually become inoperative due to wear, corrosion and aging of components made of materials such as rubber, etc. The environment and conditions of use will determine the safe service life of these products. Periodic inspection and maintenance are essential to avoid serious injury and property damage.

Many RegO products are manufactured components which are incorporated by others on or in other products or systems used for storage, transport, transfer and otherwise for use of toxic, flammable and dangerous liquids and gases. Such substances must be handled by experienced and trained personnel only, using accepted governmental and industrial safety procedures.

## NOTICE TO USERS OF PRODUCTS

The Limited Warranty stated above is a factory warranty to the first purchasers of RegO products. Since most users have purchased these products from RegO distributors, the user must within thirty (30) days after the user's discovery of what user believes is a defect, notify in writing the distributor from whom he purchased the product/parts. The distributor may or may not at the distributor's option, choose to submit the product/parts to RegO pursuant to its Limited Warranty. Failure by buyer to give such written notice within thirty (30) days shall be deemed an absolute and unconditional waiver or buyer's claim for such defects. Acceptance of any alleged defective product/parts by RegO's distributor for replacement or repairs under the terms of RegO's Limited Warranty in no way obligates RegO to the terms of the above warranty.

Because of a policy of continuous product improvement, RegO reserves the right to change designs, materials or specifications without notice.

## Canadian Registration Numbers

The majority of products in this catalog are registered with the Canadian Department of Labor under the following reference Number: 0\* 8040.5\*\*

\* Represents Fitting Categories: A, C, G, H

### Province

1 British Columbia  
2 Alberta  
3 Saskatchewan  
4 Manitoba  
5 Ontario  
6 Quebec  
7 New Brunswick

### CRN

0 \* 8040.51  
0 \* 8040.52  
0 \* 8040.53  
0 \* 8040.54  
0 \* 8040.5  
0 \* 8040.56  
0 \* 8040.57

8 Nova Scotia  
9 Prince Edward Island  
0 Newfoundland  
N Nunavut  
T Northwest Territories  
Y Yukon Territory  
0 \* 8040.58  
0 \* 8040.59  
0 \* 8040.50  
0 \* 8040.5N  
0 \* 8040.5T  
0 \* 8040.5Y

\* Represents Fitting Categories A, C, F, G, H

**Notes**

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