

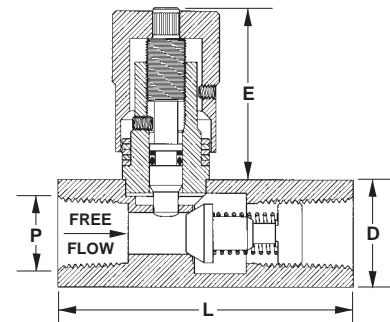
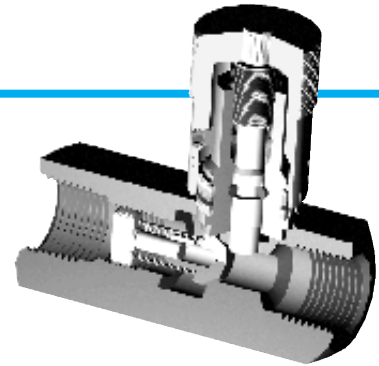
Flow Controls

TRU Micro TMF Series with Color Bands

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 3/8" brass sizes, assures leak-free air service. All others have metal to metal seat.
- Steel valves are zinc-plated AND sealed with black chromate for double corrosion protection. Also available with stainless steel body



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 | 1/4 NPT | 13/16 | 2 5/8 | 1 3/8 | 5/32 | 1.47 | .47 |
| TMF250BL | | Viton | | | | | | | |
| TMF375B | | Metal | 3/8 NPT | 1 | 2 3/4 | 1 23/32 | 7/32 | 2.95 | .72 |
| TMF375BL | | Viton | | | | | | | |
| TMF500B | Steel | 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 19/32 | 3/8 | 5.41 | 1.71 |
| TMF250S | | | 1/4 NPT | 13/16 | 2 5/8 | 1 3/8 | 5/32 | 1.47 | .47 |
| TMF375S | Steel | Metal | 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 | | | 7/16-18 SAE 6 | 13/16 | 3 3/8 | 1 3/8 | 5/32 | 1.47 | .47 |
| TMF750S | | | 3/4 NPT | 1 1/2 | 3 7/8 | 2 19/32 | 3/8 | 5.41 | 1.71 |
| TMF820S | | | 3/4-16 SAE 8 | 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 |

*For Stainless Steel Body use SS Suffix (IE TMF500SS)

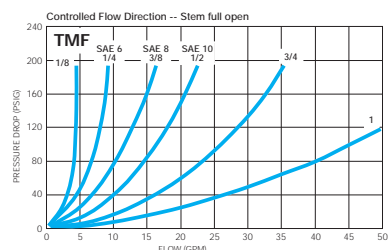
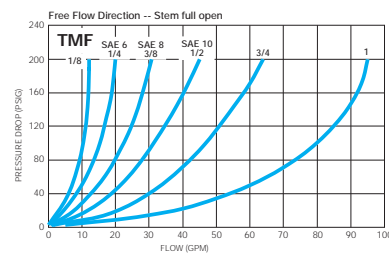
Specifications:

| | |
|---------------------------------|------------------------------------|
| Maximum Operating Pressure | 5000 PSIG Steel 2000 PSIG Brass |
| 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 |

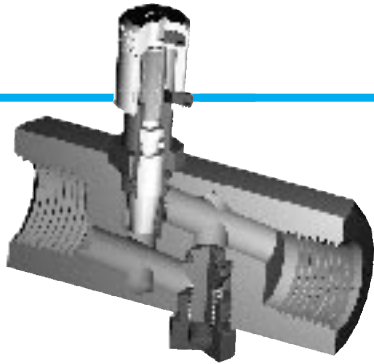
Materials:

| | |
|-----------------|--|
| 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 |

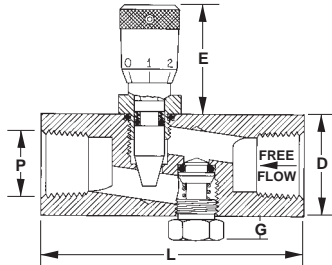
Performance



MF Series



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 glow" chromate for double corrosion protection.

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 | 1 1/16 | 9/32 | 1 3/4 | 1 1/4 | .156 | .32 | .23 | 10 |
| MF250B | | | 1/4 | 7/8 | 5/16 | 2 3/8 | | | | | |
| MF375B | | | 3/8 | 1 1/16 | 1 1/32 | 2 3/4 | 1 3/8 | .265 | 1.14 | .90 | 8 |
| MF500B | | | 1/2 | 1 5/16 | 3/8 | 3 3/16 | | | | | |
| MF750B | | | 3/4 | 1 5/8 | 1 5/32 | 3 9/16 | | | | | |
| MF125BBC | Brass | Ball | 1/8 | 1 1/16 | 9/32 | 1 3/4 | 1 1/4 | .156 | .32 | .23 | 11 |
| MF250BBC | | | 1/4 | 7/8 | 5/16 | 2 3/8 | | | | | |
| MF375BBC | | | 3/8 | 1 1/16 | 1 1/32 | 2 3/4 | 1 3/8 | .265 | 1.14 | .90 | 3 |
| MF500BBC | | | 1/2 | 1 5/16 | 3/8 | 3 3/16 | | | | | |
| MF250SBC | Steel | Ball | 1/4 | 7/8 | 5/16 | 2 3/8 | 1 1/4 | .156 | .70 | .44 | 7 |
| MF375SBC | | | 3/8 | 1 1/16 | 1 1/32 | 2 3/4 | | | | | |
| MF500SBC | | | 1/2 | 1 5/16 | 3/8 | 3 3/16 | 1 3/8 | .265 | 1.14 | .90 | 3 |
| MF750SBC | | | 3/4 | 1 5/8 | 3/8 | 3 3/16 | | | | | |
| MF1000SBC | | | 1 | 1 7/8 | 1 5/32 | 3 9/16 | | | | | |

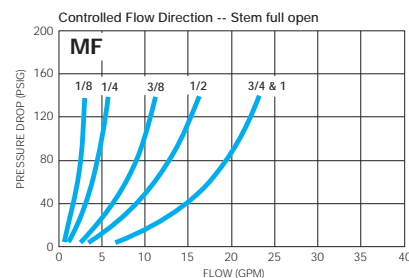
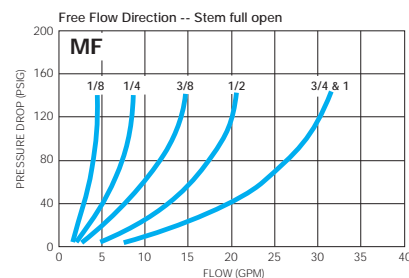
Specifications:

| | |
|----------------------------|--|
| Maximum Operating Pressure | |
| Ball Check Models | 5000 PSIG Steel 2000 PSIG Brass |
| 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) 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 |

Performance



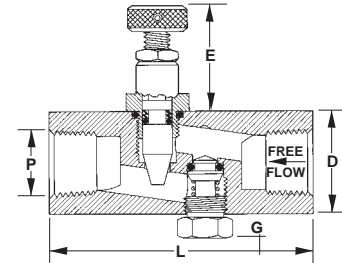
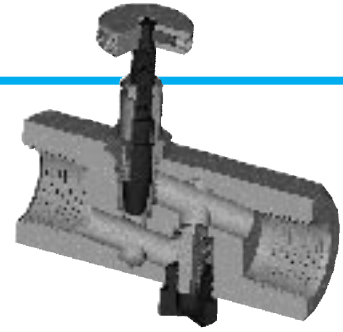
Flow Controls

KLF Series

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 glow" chromate for double corrosion protection.



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 | 1 1/16 | 9/32 | 1 3/4 | 1 1/4 | .156 | .32 | .23 | 10 |
| KLF250B | | | 1/4 | 7/8 | 5/16 | 2 3/8 | | | | | |
| 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 | | | | | |
| KLF750B | | | 3/4 | 1 5/8 | 15/32 | 3 9/16 | | | | | |
| KLF1000B | | | 1 | 1 7/8 | | | 1 7/8 | .343 | 2.91 | 2.02 | 2 |
| KLF125BBC | Steel | Ball Check | 1/8 | 1 1/16 | 9/32 | 1 3/4 | 1 1/4 | .156 | .32 | .23 | 11 |
| KLF250BBC | | | 1/4 | 7/8 | 5/16 | 2 3/8 | | | | | |
| 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 | | | | | |
| KLF750BBC | | | 3/4 | 1 5/8 | 15/32 | 3 9/16 | | | | | |
| KLF125SBC | | | Steel | Ball Check | 1/8 | 1 1/16 | 9/32 | 1 3/4 | 1 1/4 | .156 | .32 |
| KLF250SBC | 1/4 | 7/8 | | | 5/16 | 2 3/8 | | | | | |
| 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 | | | | | |
| KLF750SBC | 3/4 | 1 5/8 | | | 15/32 | 3 9/16 | | | | | |

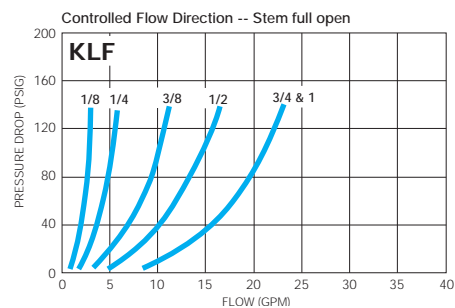
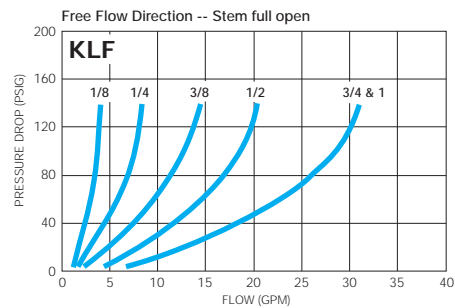
Specifications:

| | |
|----------------------------|--|
| Maximum Operating Pressure | |
| Ball Check Models | 5000 PSIG Steel 2000 PSIG Brass |
| 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) 24 Threads/Inch (3/4, 1" Sizes) |

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 |

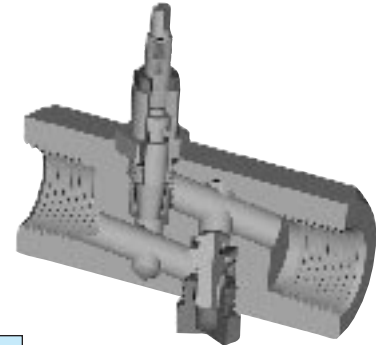
Performance



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

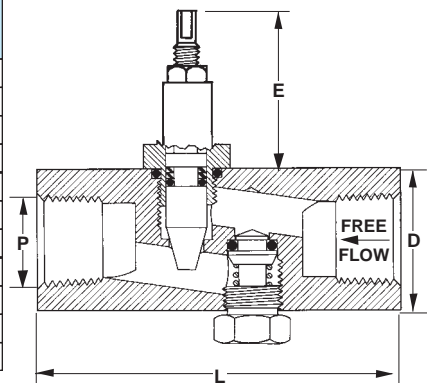
Features:

- 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 glow" chromate for double corrosion protection.



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 | 1 1/16 | 9/32 | 1 3/4 | 1 1/4 | .156 | .32 | .23 | 10 |
| F250B | | | 1/4 | 7/8 | 5/16 | 2 3/8 | | .156 | .70 | .44 | 7 |
| F375B | | | 3/8 | 1 1/16 | 11/32 | 2 3/4 | 1 3/8 | .265 | 1.14 | .90 | 8 |
| F500B | | | 1/2 | 1 5/16 | 3/8 | 3 3/16 | | .281 | 1.74 | 1.32 | 5 |
| F250BBC | Steel | Ball Check | 1/4 | 7/8 | 5/16 | 2 3/8 | 1 1/4 | .156 | .70 | .44 | 7 |
| F375BBC | | | 3/8 | 1 1/16 | 11/32 | 2 3/4 | | .265 | 1.14 | .90 | 3 |
| F500BBC | | | 1/2 | 1 5/16 | 3/8 | 3 3/16 | 1 3/8 | .281 | 1.74 | 1.32 | 1 |
| F250SBC | | | 1/4 | 7/8 | 5/16 | 2 3/8 | | .156 | .70 | .44 | 7 |
| F375SBC | 3/8 | 1 1/16 | 11/32 | 2 3/4 | 1 3/8 | .265 | 1.14 | .90 | 3 | | |
| F500SBC | 1/2 | 1 5/16 | 3/8 | 3 3/16 | | .281 | 1.74 | 1.32 | 1 | | |
| F750SBC | 3/4 | 1 5/8 | 15/32 | 3 9/16 | 1 7/8 | .343 | 2.91 | 2.02 | 3 | | |



Specifications:

| | |
|----------------------------|--|
| Maximum Operating Pressure | |
| Ball Check Models | 5000 PSIG Steel 2000 PSIG Brass |
| 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) 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 |
| Check Plug | Steel or Brass |
| Lock Nut | Brass |
| Stem Packing | Viton O-ring with "Teflon" Backup Gland |
| Chamber | Steel |

Performance

