

General Description

Series F flow control valves provide precise control of flow and shut-off in one direction, and automatically permit full flow in the opposite direction.

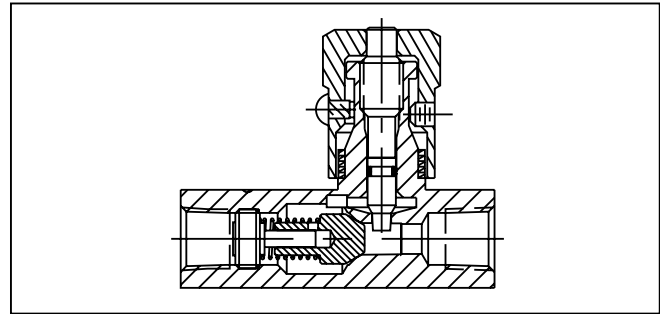
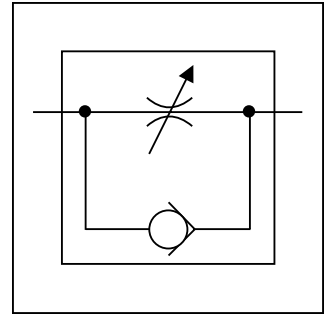
Operation

A two-step needle allows fine adjustment at low flow by using the first three turns of the adjusting knob. The next three turns open the valve to full flow, and also provide standard throttling adjustments.

Features

- The exclusive “Colorflow” color-band reference scale on the valve stem is a great convenience and time-saver in setting the valve originally and in returning it to any previous setting.
- A simple set screw locks the valve on any desired setting.
- A tamperproof option (T) feature is also available to prevent accidental or intentional adjustment of flow setting.

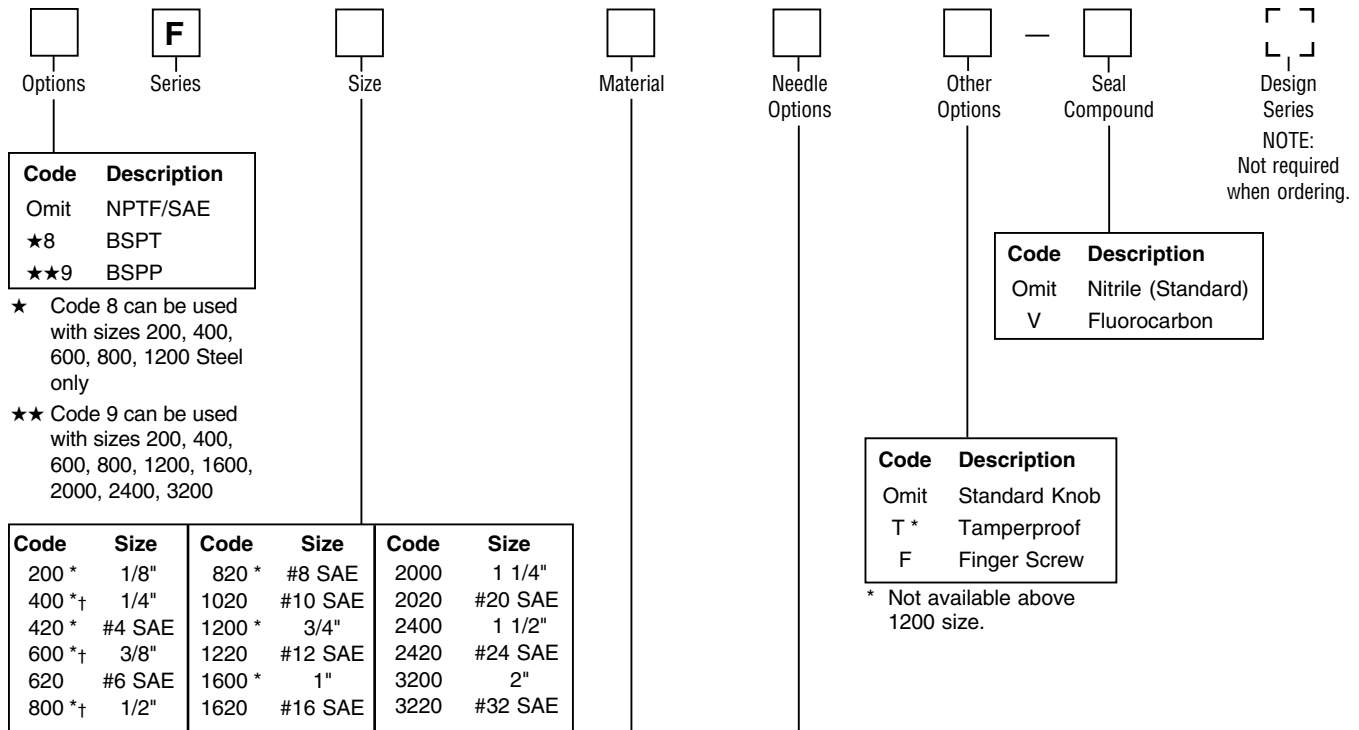
Specifications



LSR Distribuidor
 Glorias No. 4 Col. San Rafael Chamapa
 Tel 0155 5300 7008 / 5300 4245



| | | | | |
|-----------------------------------|--------------------------------|---|----------------------------------|--|
| Maximum Operating Pressure | Brass: | 140 Bar (2000 PSI); except for F1600 brass which is 35 Bar (500 PSI) | Poppets | Soft seal poppet in brass 200 - 820 sizes |
| | Steel & Stainless Steel: | 345 Bar (5000 PSI) for 200 thru 1020; 207 Bar (3000 PSI) for all other sizes | | Solid metal 416 stainless steel poppet on all other sizes and styles |
| Material | Body | see ordering code | Nominal Cracking Pressure | 0.4 Bar (5 PSI) standard |
| | Knob | Steel - Zinc plated | | Operating Temperature |
| | Spring | 316 Stainless Steel | | |
| | Needle | 416 Stainless Steel | | |
| | Poppet | 416 Stainless Steel | | |
| | Retainer | 416 Stainless Steel | | |
| | Stainless Steel Bodies | 303 Stainless Steel | | |



* Sizes available in Brass.
 † Sizes available in Stainless Steel.

| Code | Description |
|------|-----------------|
| B | Brass |
| S | Steel |
| SS* | Stainless Steel |

Series F Brass Valves can be used for both air and oil service.

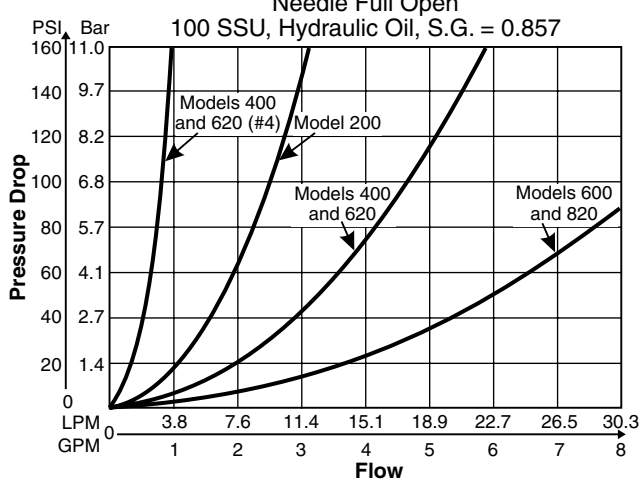
* Available in 400, 600 and 800 sizes.

| Code | Description |
|------|---|
| Omit | Standard |
| 4 | Fine Metering (200, 400, 600, 620, 820 sizes) |

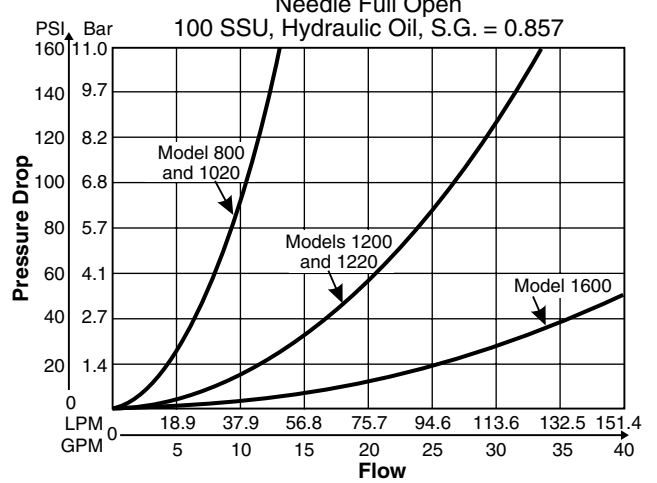
| Model Number | Free Flow Rate, Max. LPM (GPM) | Free Flow Orifice Area in.² | Free Flow C _v | Effective Orifice Area, Control Flow in.² | Effective Control Flow C _v |
|--------------|--------------------------------|-----------------------------|--------------------------|---|---------------------------------------|
| F200 | 11 (3) | 0.023 | 0.53 | 0.0102 | 0.230 |
| F420 | 11 (3) | 0.023 | 0.53 | 0.0102 | 0.230 |
| F400 | 19 (5) | 0.068 | 1.56 | 0.0194 | 0.433 |
| F620 | 19 (5) | 0.068 | 1.56 | 0.0194 | 0.433 |
| F600 | 30 (8) | 0.099 | 2.27 | 0.0344 | 0.787 |
| F820 | 30 (8) | 0.099 | 2.27 | 0.0344 | 0.787 |
| F800 | 57 (15) | 0.224 | 5.11 | 0.0427 | 0.976 |
| F1020 | 57 (15) | 0.224 | 5.11 | 0.0427 | 0.976 |
| F1200 | 95 (25) | 0.348 | 7.95 | 0.1080 | 2.470 |
| F1220 | 95 (25) | 0.348 | 7.95 | 0.1080 | 2.470 |
| F1600 | 151 (40) | 0.453 | 10.35 | 0.2300 | 5.250 |
| F1620 | 151 (40) | 0.453 | 10.35 | 0.3070 | 7.000 |
| F2000 | 265 (70) | 0.855 | 19.52 | 0.2300 | 5.250 |
| F2020 | 265 (70) | 0.855 | 19.52 | 0.3710 | 8.470 |
| F2400 | 379 (100) | 0.955 | 21.82 | 0.2300 | 5.250 |
| F2420 | 379 (100) | 0.955 | 21.82 | 0.3710 | 8.470 |
| F3200 | 568 (150) | 1.046 | 23.90 | 0.2300 | 5.250 |
| F3220 | 568 (150) | 1.046 | 23.90 | 0.6010 | 13.410 |



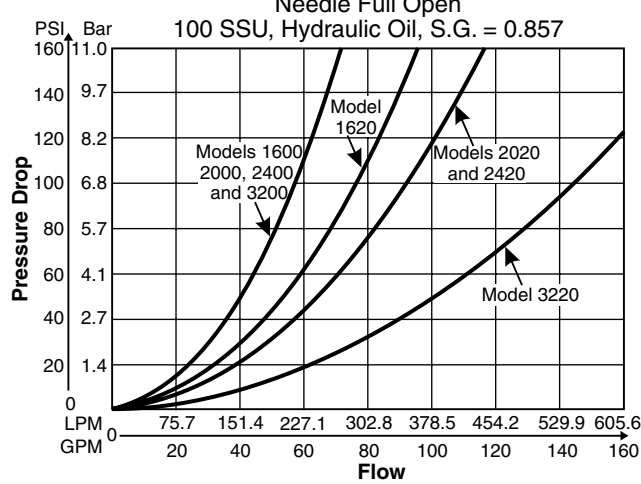
Controlled Flow vs. Pressure Drop



Controlled Flow vs. Pressure Drop

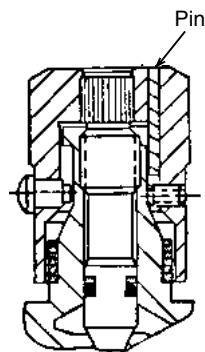
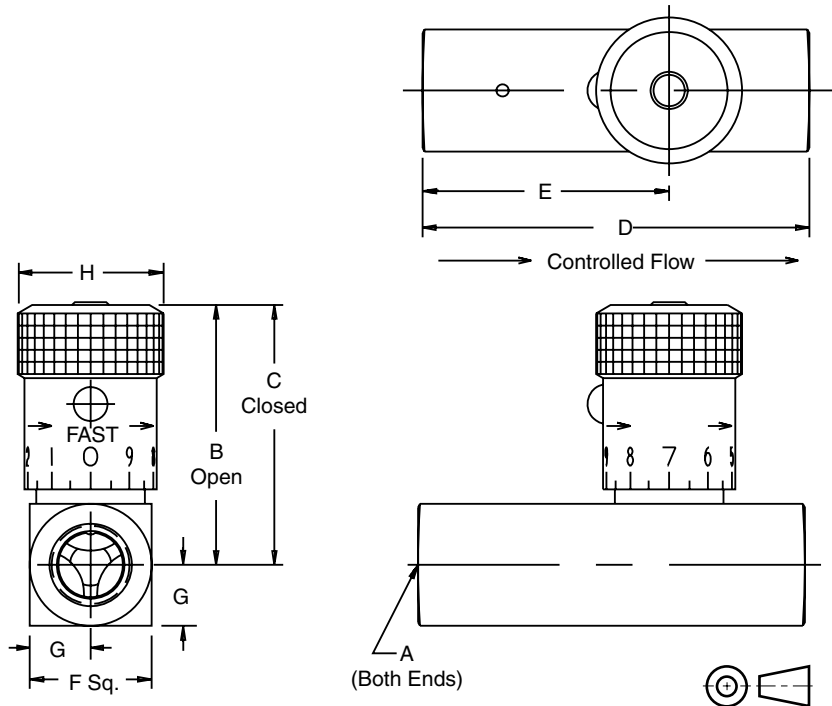


Controlled Flow vs. Pressure Drop

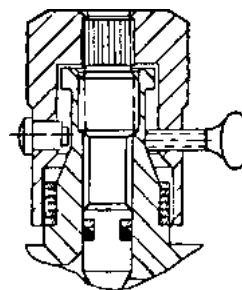


Inch equivalents for millimeter dimensions are shown in (**)

Knob Options



Tamperproof Option (Code "T") permanently locks knob at desired flow setting by installing a pin in predrilled hole.



Finger screw Option (Code "F") provides this thumb-screw in place of set screw.

| Model Number | Weight kg (lbs) | A | B | C | D | E | F | G | H |
|--------------|--------------------|------------------------|--------------|--------------|--------------|--------------|--------------|-------------|---------------|
| F200 | 0.1 (0.3) | 1/8-27 NPTF | 39.1 (1.54) | 35.3 (1.39) | 50.8 (2.00) | 32.5 (1.28) | 16.0 (0.63) | 7.9 (0.31) | 19.1 (0.75) |
| F400 | 0.2 (0.5) | 1/4-18 NPTF | 45.5 (1.79) | 40.4 (1.59) | 66.8 (2.63) | 42.2 (1.66) | 20.6 (0.81) | 10.4 (0.41) | 20.6 (0.81) |
| F420 | 0.2 (0.5) | 7/16-20 UNF #4 SAE | 41.4 (1.63) | 37.6 (1.48) | 68.3 (2.69) | 42.9 (1.69) | 20.6 (0.81) | 10.4 (0.41) | 19.1 (0.75) |
| F600 | 0.3 (0.7) | 3/8-18 NPTF | 55.4 (2.18) | 49.5 (1.95) | 69.9 (2.75) | 44.5 (1.75) | 25.4 (1.00) | 12.7 (0.50) | 25.4 (1.00) |
| F620 | 0.3 (0.6) | 9/16-18 UNF #6 SAE | 47.7 (1.88) | 42.7 (1.68) | 79.2 (3.12) | 48.8 (1.92) | 25.4 (1.00) | 12.7 (0.50) | 20.6 (0.81) |
| F800 | 0.7 (1.5) | 1/2-14 NPTF | 68.6 (2.70) | 61.5 (2.42) | 87.4 (3.44) | 56.6 (2.23) | 31.8 (1.25) | 16.0 (0.63) | 30.2 (1.19) |
| F820 | 0.5 (1.0) | 3/4-16 UNF #8 SAE | 56.9 (2.24) | 51.1 (2.01) | 88.9 (3.50) | 53.8 (2.12) | 28.4 (1.12) | 14.2 (0.56) | 25.4 (1.00) |
| F1020 | 0.8 (1.8) | 7/8-14 UNF #10 SAE | 68.6 (2.70) | 61.5 (2.42) | 101.6 (4.00) | 65.0 (2.56) | 31.8 (1.25) | 15.7 (0.62) | 30.2 (1.19) |
| F1200 | 1.2 (2.6) | 3/4-14 NPTF | 85.9 (3.38) | 71.4 (2.81) | 98.6 (3.88) | 65.5 (2.58) | 38.1 (1.50) | 19.1 (0.75) | 35.1 (1.38) |
| F1220 | 1.2 (2.6) | 1 1/6-12 UN #12 SAE | 85.9 (3.38) | 71.4 (2.81) | 117.3 (4.62) | 76.5 (3.01) | 38.1 (1.50) | 19.1 (0.75) | 35.1 (1.38) |
| F1600 | 2.3 (5.1) | 1-11 1/2 NPTF | 123.7 (4.87) | 106.9 (4.21) | 127.0 (5.00) | 81.8 (3.22) | 44.5 (1.75) | 22.4 (0.88) | 47.8 (1.88) * |
| F1620 | 2.3 (5.1) | 1 5/16-12 UN #16 SAE | 130.8 (5.15) | 114.0 (4.49) | 142.7 (5.62) | 88.9 (3.50) | 57.2 (2.25) | 28.4 (1.12) | 47.8 (1.88) * |
| F2000 | 3.7 (8.1) | 1 1/4-11 1/2 NPTF | 130.0 (5.12) | 113.3 (4.46) | 143.0 (5.63) | 98.6 (3.88) | 57.2 (2.25) | 28.7 (1.13) | 47.8 (1.88) * |
| F2020 | 3.7 (8.1) | 1 5/8-12 UN #20 SAE | 140.2 (5.52) | 123.4 (4.86) | 165.1 (6.50) | 108.0 (4.25) | 69.9 (2.75) | 35.1 (1.38) | 47.8 (1.88) * |
| F2400 | 4.6 (10.2) | 1 1/2-11 1/2 NPTF | 136.4 (5.37) | 119.6 (4.71) | 143.0 (5.63) | 113.5 (4.47) | 69.9 (2.75) | 35.1 (1.38) | 47.8 (1.88) * |
| F2420 | 4.6 (10.2) | 1 7/8-12 UN-2B #24 SAE | 143.5 (5.65) | 126.7 (4.99) | 184.2 (7.25) | 127.0 (5.00) | 76.2 (3.00) | 38.1 (1.50) | 47.8 (1.88) * |
| F3200 | 7.9 (17.4) | 2-11 1/2 NPTF | 146.1 (5.75) | 129.3 (5.09) | 165.1 (6.50) | 134.9 (5.31) | 88.9 (3.50) | 44.5 (1.75) | 47.8 (1.88) * |
| F3220 | 7.9 (17.4) | 2 1/2-12 UN #32 SAE | 163.6 (6.44) | 139.4 (5.49) | 228.6 (9.00) | 155.7 (6.13) | 101.6 (4.00) | 50.8 (2.00) | 47.8 (1.88) * |

* = Hex

