

F-2804 Series Check Valves



The F-2804 Series Check Valves permit flow in one direction only. The operation of the check valve is based on the movement of a small disc. The disc shifts within the housing as the pressure differential changes from forward to reverse. A flat surface on one side of the disc seals off flow, while the other side allows flow to pass.

Five models are available: The Polypropylene Unit, F-2804-400, the Standard Units, F-2804-401, 402, and 403 and the High Flow Unit, F-2804-404.

The advantages of the check valve design are low "cracking pressure" and a minimum differential for forward flow, less than 0.005 PSI in the Standard Units. Secondly, there is no residual pressure difference across the check valve once flow has ceased. Flow in the forward direction is relatively unrestricted, approximately equivalent to the restriction of a 0.040 inch orifice in the Standard Units. The amount of flow permitted in the reverse direction, which is the sealing side, and the forward direction, which is full flow, is shown in the graphs below right.

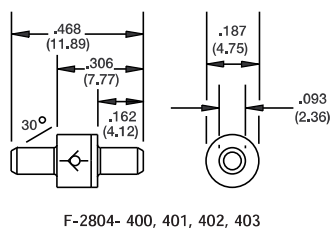
ORDERING INFORMATION (Order by model number and specify accessory letters required.)

F-2804 - 404 - B85

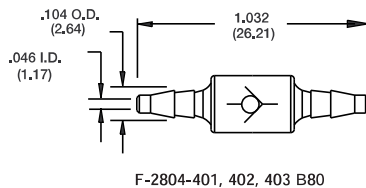
Model Number	Color Code	Port Connection
F-2804-400	Red Symbol	Only available with 1/16" straight ports
F-2804-401	Orange Symbol	B80 - Barbs for 1/16" I.D. tubing B85 - Barbs for 1/8" I.D. tubing
F-2804-402	Green Symbol	
F-2804-403	Blue Symbol	No accessory numbers required for straight ports.
F-2804-404	Black Housing	B80 - Barbs for 1/16" I.D. tubing B85 - Barbs for 1/8" I.D. tubing No accessory numbers required for 10-32 threads.

DIMENSIONS

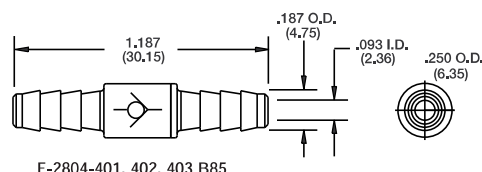
() = Metric Dimensions



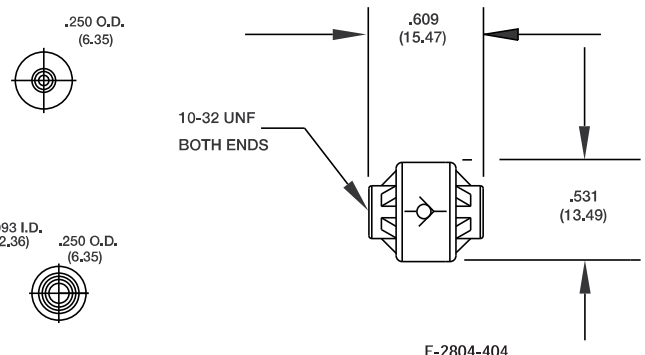
F-2804- 400, 401, 402, 403



F-2804-401, 402, 403 B80



F-2804-401, 402, 403 B85



F-2804-404

FEATURES

- Minimum Cracking Pressure
- Miniature size
- Low Cost

SPECIFICATIONS

Maximum Supply: F-2804-400 • 10 PSI
F-2804-401 • 10 PSI
F-2804-402 • 10 PSI
F-2804-403 • 10 PSI
F-2804-404 • 75 PSI

Operating Temperature: 40° to 120°F. (5° to 48°C.)

Recommended Filtration: 5 micron

Cracking Pressure: F-2804-400 • Less than .8" H₂O
F-2804-401 • Less than .8" H₂O
F-2804-402 • Less than .8" H₂O
F-2804-403 • Less than .8" H₂O
F-2804-404 • Less than 10" H₂O

MATERIALS

	Housing	Disc
F-2804-400	• Polypropylene	• Silicone
F-2804-401	• Polysulfone	• Celcon
F-2804-402	• Polysulfone	• Celcon
F-2804-403	• Polysulfone	• Silicone
F-2804-404	• Polysulfone	• Silicone

MOUNTING

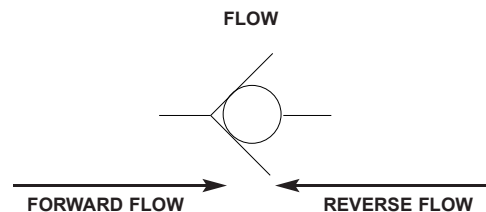
Inline

PORT CONNECTIONS

Straight ports for 1/16" I.D. flexible tubing

Barbs for 1/16" or 1/8" I.D. flexible tubing

The F-2804-404 has 10-32 threads



TYPICAL FLOW CHARACTERISTICS

Model Number	Reverse Flow @ 1 PSI Differential	Forward Flow @ 1 PSI Differential
F-2804-400	Less than 0.20 SCIM	0.12 SCFM 1 PSI Supply
F-2804-401	Less than 2.98 SCIM	
F-2804-402	Less than 1.00 SCIM	
F-2804-403	Less than 0.20 SCIM	2.0 SCFM 75 PSI Supply
F-2804-404	Less than 0.06 SCIM	