



General

The "SPF" Series Flow Control Valves meter flow of air or oil in one direction and allow free flow in the reverse direction. "SPF" Series valves are manufactured with a two step needle. Fine metering is accomplished over the initial adjustment turns and nominal metering is provided over the remaining turns. Once the desired flow is selected, a set screw can be tightened to maintain the setting. These valves are available with NPTF ports in 1/8", 1/4", 3/8", and 1/2" sizes.

Valve Specifications

Maximum Operating Pressure..... 2000 PSI Non-Shock
 Cracking pressure for
 return check poppet –..... 5 PSI Nominal

Operating Temperature
 Standard 0° to 140° F*
 -40° to 140° F (Hydraulic service)

Extended Temperature 0° to 400°F*

* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.

Component Materials

Body Material..... Brass
Needle Stainless Steel
Poppet Stainless Steel
Poppet Style Soft Seal Standard
Check Retainer Stainless Steel
Seals Nitrile (Standard), Fluorocarbon (Optional)
Knob Steel with Zinc Plating
Spring Stainless Steel

Model Selection and Dimensions

Model Number	A Port Size	B	C	D	E	F
SPF200B	1/8-27 NPTF	1.54	2.00	0.63	1.28	0.75
SPF400B	1/4-18 NPTF	1.79	2.63	0.81	1.66	0.81
SPF600B	3/8-18 NPTF	2.18	2.75	1.00	1.75	1.00
SPF800B	1/2-14 NPTF	2.70	3.44	1.25	2.23	1.19

For units with Fluorocarbon seals, add suffix "V". Example: SPF200BV

Performance Data - Flow

Model Number	Controlled Flow Needle Full Open / Check Closed			Free Flow Needle Full Open		
	Flow - SCFM @ 100 PSI Full DP	C _v	Effective Area Sq. Inches	Flow - SCFM @ 100 PSI Full DP	C _v	Effective Area Sq. Inches
SPF200B	8.8	0.16	0.006	25.4	0.53	0.018
SPF400B	19.3	0.35	0.013	55.2	1.56	0.038
SPF600B	33.1	0.60	0.023	99.3	2.27	0.070
SPF800B	55.2	1.00	0.038	138.0	5.11	0.096