



**SF5000HTVB**

#### GENERAL DESIGN FEATURES

- ▶ Compact valve design using a Nitronic 50HS body.
- ▶ Field-proven variable orifice design with a 1000:1 turndown ratio and flow rates of 0.6 to 600 GPD or 25 to 2500 GPD. Also available in Ultra Low Flow Range of 0.2 to 150 GPD.
- ▶ NACE MRO175 compliant as standard.
- ▶ Compatible sealing with all chemicals (Scale, Corrosion, Asphaltene, Wax Inhibitors, Demulsifier, Antifoam, and Methanol)
- ▶ Proven and reliable technology since 1988.
- ▶ Process connections and mounting pattern match field proven SF5000C CIMVs.

#### PRESSURE BALANCED PISTON

- ▶ Pressure Independence – Upstream and downstream pressure fluctuations create a net force on the patented pressure-balanced piston, which is countered by a spring force to maintain a constant flow.
- ▶ Stable and Accurate Flow Delivery - pressure-balanced piston provides instantaneous means of control at different injection points from a common line that is more tolerant to debris and fluid filming. No pneumatic or electric power sources are required for control.
- ▶ Debris Management – Accumulated debris results in a net force on the piston that instantaneously lifts the pin slightly from the seat, passing the debris through the outlet. This net force is countered by the spring force that returns the piston to its balanced flow rate position.

#### SKOFLO BENEFITS

- ▶ 30-year experience, industry expert, and solution provider
- ▶ Pressure Independent Valve Technology (PIVT)
- ▶ Significant chemical **OPEX** cost savings

### FLOW CHARACTERISTICS

Flow Range	0.2 to 150 GPD (0.03 to 23.6 LPH)	0.6 to 600 GPD (0.095 to 94.6 LPH)	25 to 2500 GPD (4 to 394 LPH)
Flow Delivery	Maintains set flow rate despite debris and upstream or downstream pressure fluctuations.		
Minimum Differential Pressure <sup>1</sup>	300 psi (21 bar) at Full Scale Flow <sup>2</sup> [For min dP requirements at lower flow rates please consult factory]		

### DESIGN RATINGS

Design Standards	API6A: Bolting; NACE MRO175 Material Selection		
Design Life	25 years		
Working Pressure Rating	5,000 psig (345 barg)		
Proof Test Pressure	7,500 psig (517 barg)		
Operating Temperature Rating	<b>FFKM</b>	<b>FKM</b>	<b>EPDM</b>
	-5°F to 185°F (-15°C to 85°C)	-50°F to 185°F (-45°C to 85°C)	-50°F to 185°F (-45°C to 85°C)
Storage Temperature Rating	-50°F to 185°F (-45°C to 85°C)		
Viscosity	0.5 – 100 cP <sup>4</sup>		
Debris Tolerance	SAE AS4059 Class 12B-F		
Installation Orientation	Horizontal or Vertical		
Envelope Dimensions	8in. x Ø5in. (230mm x Ø127 mm)		
Weight <sup>3</sup>	11.3 lb. (5.13 Kg)		
Process Connections	¼" NPT Female		

### MATERIALS – CHEMICALLY WETTED

Valve Body <sup>5</sup>	Nitronic 50HS
Metallic Components	Nitronic 50HS, 316/316L SS, Inconel 718, Elgiloy
Non-metallic Components	PEEK, PTFE, FFKM, FKM, EPDM, Alumina, Zirconia
Valve Trim	Ceramic

1 At maximum flow. For -600 maximum flow is 600 Gallons per Day, for -2500 maximum flow is 2,500 Gallons per day.

2 50% MEG in water at room temperature.

3 Weight not including an optional actuator.

4. Product is suitable for higher viscosity applications. Consult factory for applications >100cP

5. For alternative materials, consult factory