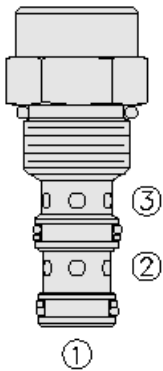




Overview



Description

The FR10-30F is a screw-in, cartridge style, pressure compensated, non-adjustable hydraulic flow regulator valve. It CAN be used as a priority type flow regulator, delivering the pump flow to priority port 3 first, then bypassing excess to port 2; or a restrictive type, 2-way flow regulator when the bypass port 2 is blocked.

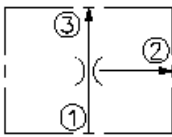
Operation

The valve maintains a constant flow rate from port 3 regardless of pressure variations in the system downstream of priority port 3 or in bypass leg at port 2. All ports may be fully pressurized.

Features

- Hardened parts for long life.
- Quiet, modulated response.
- Industry-common cavity.

Symbol



Ratings

Pressure Ratings

Pressure rating	241 bar (3500 psi)
Proof pressure	345 bar (5000 psi)
Burst pressure	896 bar (13000 psi)

Flow Ratings

Priority flow rating	0.4 to 22.7 lpm (0.1 to 6.0 gpm)
Inlet flow rating	37.8 lpm (10.0 gpm) - Note: Maximum

Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F)	- Note: With buna N seals
	-26 to 204 °C (-15 to 400 °F)	- Note: With fluorocarbon seals
	-54 to 107 °C (-65 to 225 °F)	- Note: With polyurethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 70 °C (-40 to 160 °F)	

Operating Parameters

Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406

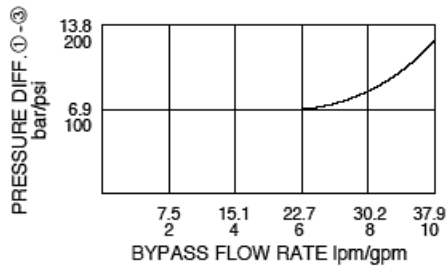
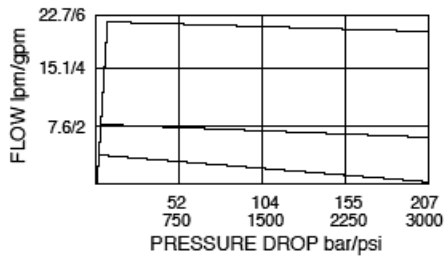
Properties

Unit weight	0.13 kg (0.28 lb)
Internal wetted surface area	130 cm ² (20.2 in ²)

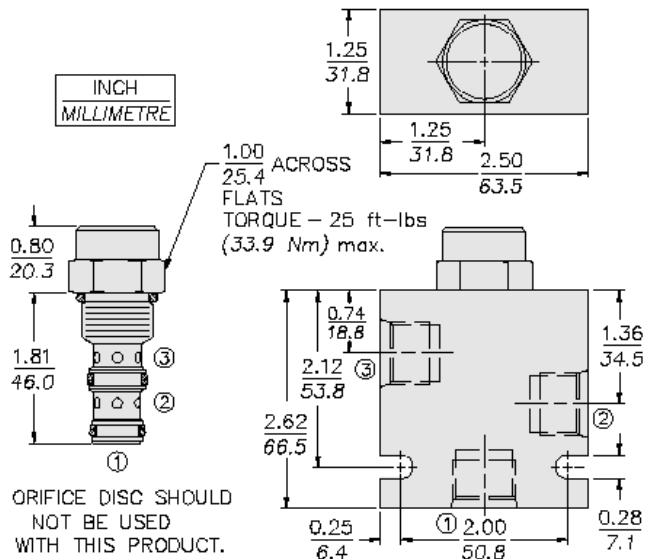


Performance

Flow Maint. Characteristic ①-③
32 cSt/150 sus oil at 40°C



Dimensions



Installation Specifications

Cavity	VC10-3
Cartridge installation torque	34 to 37 N-m (25 to 27 ft-lb)
Maximum allowable torque	68 N-m (50 ft-lb)
Orientation restriction	None

Accessories

Seal kit	SK10-3X-TB	- Note: X = seal option
Housings		



Order Code

FR10-30F - - - /

<p>Porting</p> <p>Cartridge Only 0</p> <p>SAE 6 6T</p> <p>SAE 8 8T</p> <p>1/4 in. BSP* 2B</p> <p>3/8 in. BSP* 3B</p> <p>*BSP Body; U.K. Mfr. Only</p> <p>Seals</p> <p>Buna N (Std.) N</p> <p>Fluorocarbon V</p>	<p>Priority Flow Setting in lpm</p> <p>Range: 0.38 to 22.7 lpm; Specify, for example:</p> <p>M1.8 1.8 lpm</p> <p>M5.0 5.0 lpm</p> <p>etc.</p> <p>Priority Flow Setting in gpm</p> <p>Range: 0.1 to 6.0 gpm Specify, for example:</p> <p>1.3 1.3 gpm</p> <p>5.0 5.0 gpm</p> <p>etc.</p> <p>Priority Flow Drill Size Method</p> <p>In thousandths of an inch; Specify, for example:</p> <p>D030 0.030 in. control orifice hole</p> <p>etc.</p>
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Note: Compensator spring values may be varied for OEM application to provide changed differential pressure/output flow relationships. Consult factory.

Note: Minimum drill diameter is 0.020 in.
For smaller orifice sizes consult factory.

POSITION	CODE	DESCRIPTION
		FR10-30F-H-J/T
F		Adjustment Option
F	F	Factory Preset Non-Adjustable
H		Line Body
H	0	No Body
H	6T	Aluminum SAE 6
H	8T	Aluminum SAE 8
H	6TD	Ductile Iron SAE 6
H	8TD	Ductile Iron SAE 8
H	3B	Aluminum BSPP 3/8" (3)
H	3BD	Ductile Iron BSPP 3/8" (3)
J		Seal
J	N	Buna-N
J	V	Fluorocarbon
J	P	Polyurethane
J	U	PPDI Urethane
T		Flow setting
T	XX	Flow setting