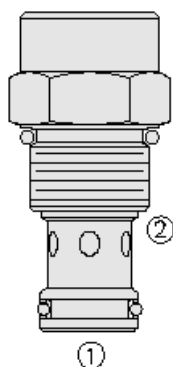




Overview



Description

FR12-20F is a screw-in, cartridge style, fixed orifice, pressure compensated, hydraulic flow regulator valve (restrictive type).

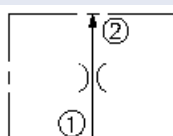
Operation

The valve maintains a constant flow rate from port 1 to port 2 regardless of load pressure changes. Reverse flow returns through the control orifice and is non-compensated.

Features

- Hardened parts for long life.
- Quiet, modulated response.
- Cost-effective cavity.

Symbol



Ratings

Pressure Ratings

Pressure rating 240 bar (3500 psi)

Flow Ratings

Flow rating 4.0 to 55 lpm (1.0 to 14.5 gpm)

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
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 70 °C (-40 to 160 °F)	

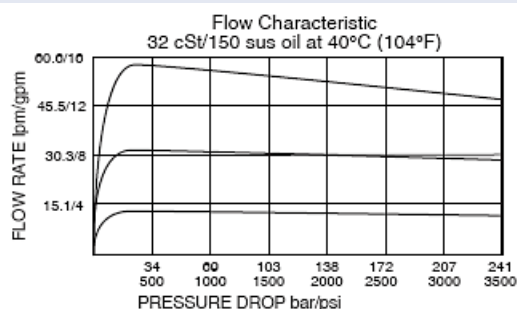
Operating Parameters

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

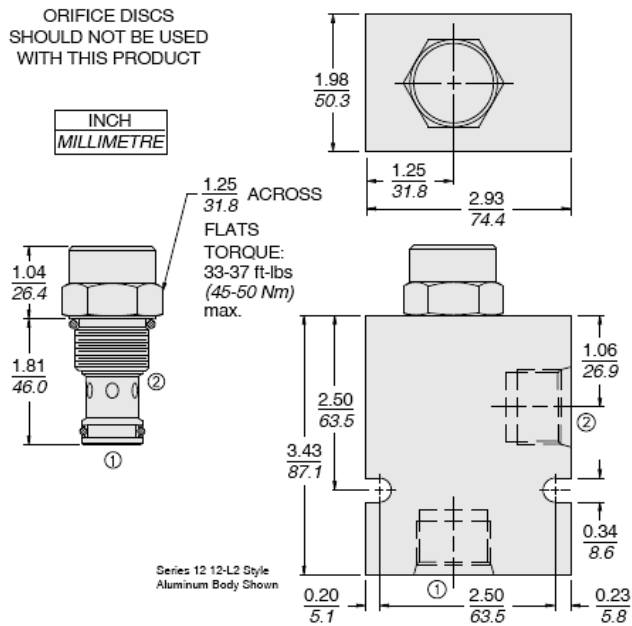
Properties

Unit weight	0.25 kg (0.56 lb)
Internal wetted surface area	162 cm ² (25 in ²)

Performance



Dimensions



Installation Specifications

Cavity	VC12-2
Cartridge installation torque	45 to 50 N-m (33 to 37 ft-lb)
Maximum allowable torque	68 N-m (50 ft-lb)
Orientation restriction	None

Accessories

Seal kit	SK12-2X-M-115	- Note: X = seal option
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Order Code

FR12-20F -		-	/		
Porting				Setting in lpm	
Cartridge Only		0		Specify, for example:	
SAE 10	10T			M5.5	5.50 lpm
SAE 12	12T			M38.0	38.0 lpm
SAE 16	16T			etc.	
Seals				Setting in gpm	
Buna N (Std.)		N		Specify, for example:	
Fluorocarbon		V		1.5	1.5 gpm
				10.0	10.0 gpm
				etc.	
				Drill Size Method	
				In thousandths of an inch.	
				Specify, for example:	
				D94	0.094 in. control orifice hole
				etc.	

Model Options**FR12-20F-H-J-/T****F Adjustment Option**

CODE	DESCRIPTION
F	Factory Preset Non-Adjustable

H Line Body

CODE	DESCRIPTION
0	No Body
10T	Aluminum SAE 10
12T	Aluminum SAE 12
16T	Aluminum SAE 16
12TD	Ductile Iron SAE 12
16TD	Ductile Iron SAE 16
8B	Aluminum BSPP 1" (8)
8BD	Ductile Iron BSPP 1" (8)

J Seal

CODE	DESCRIPTION
N	Buna-N
V	Fluorocarbon
P	Polyurethane
U	PPDI Urethane

T Flow setting

CODE	DESCRIPTION
XX	Flow setting