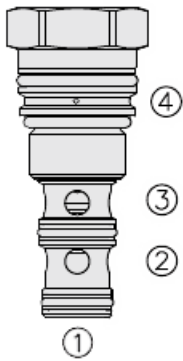




Overview



Description

The FR10-E40F is a screw-in, cartridge style, pressure compensated, non-adjustable hydraulic flow regulator valve with a vented port option. With port 4 blocked, 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. With port 4 open, the spool shifts allowing restricted flow through vented port 4 and the remaining flow through bypass port 2.

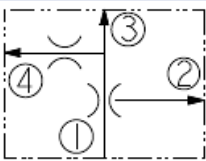
Operation

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. The valve is intended for use in an accumulator charging circuit with an unloading valve piloting vented port 4 of FR10-E40F.

Features

- Built-in priority bypass functionality.
- Can be used in conjunction with an unloading valve for accumulator charging.
- Quiet, modulated response.
- Hardened parts for long life.

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

Operating Parameters

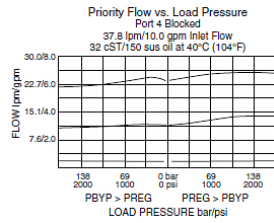
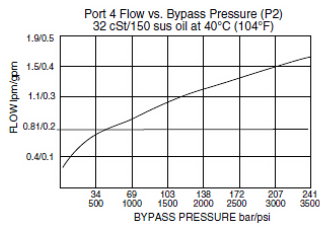
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406

Properties

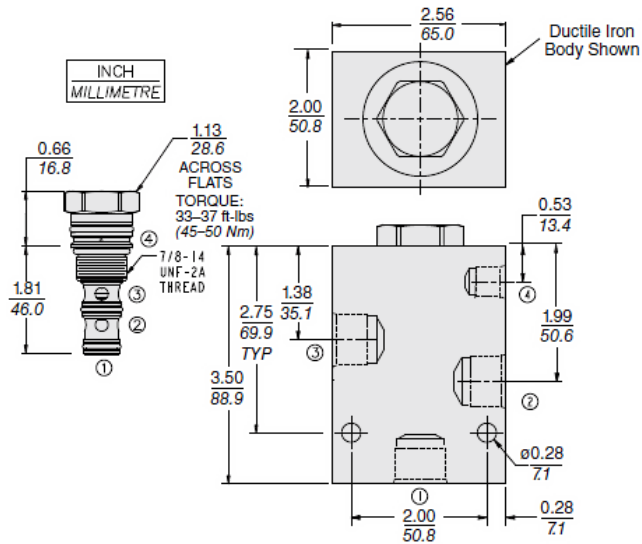
Unit weight	0.17 kg (0.38 lb)
Internal wetted surface area	134 cm ² (20.7 in ²)



Performance



Dimensions



Installation Specifications

Cavity	HVC10-e4
Cartridge installation torque	45 to 50 N-m (33 to 37 ft-lb)
Orientation restriction	None

Accessories

Seal kit	SK10-E4N-BMM	- Note: Buna N
	SK10-E4V-BMM	- Note: Fluorocarbon
	SK10-E3U-OOO	- Note: Urethane



Order Code

FR10-E40F - - -		
Porting		
Cartridge Only	0	
SAE 8	8HT	
3/8 in. BSP*	3HB	
*BSP Body; U.K. Mfr. Only		
Seals		
Buna N	N	
Fluorocarbon	V	
Urethane (Std.)	U	
		Priority Flow
		Specify, for example:
		Setting In lpm
		Range: 0.4 to 22.7 lpm
	M1.8	1.8 lpm
	M5.0	5.0 lpm
		Setting In gpm
		Range: 0.1 to 6.0 gpm
	0.50	0.5 gpm
	2.50	2.5 gpm
		Drill Size Method
		(in thousandths of an inch)
		Specify, for example:
		Range: 0.21 in. to 0.147 in.
	D030	0.030 in. control orifice hole

Model Options

FR10-E40F-H-J-T

H Line Body

CODE	DESCRIPTION
0	No Body
8HT	Ductile Iron SAE 8

J Seal

CODE	DESCRIPTION
N	Buna-N
V	Fluorocarbon
P	Polyurethane

T Flow setting

CODE	DESCRIPTION
XX	Flow setting