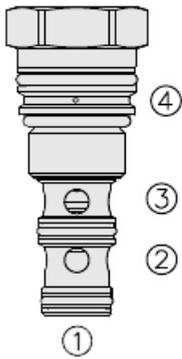
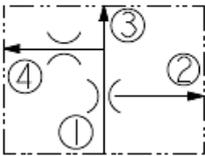




## Overview



### Symbol



### 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.

## 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)    - <b>Note:</b> Maximum

### Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F)	- <b>Note:</b> With buna N seals
	-26 to 204 °C (-15 to 400 °F)	- <b>Note:</b> With fluorocarbon seals
	-54 to 107 °C (-65 to 225 °F)	- <b>Note:</b> 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

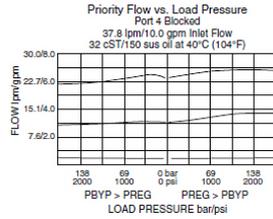
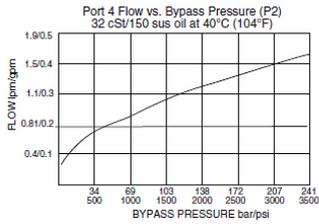
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406

## Properties

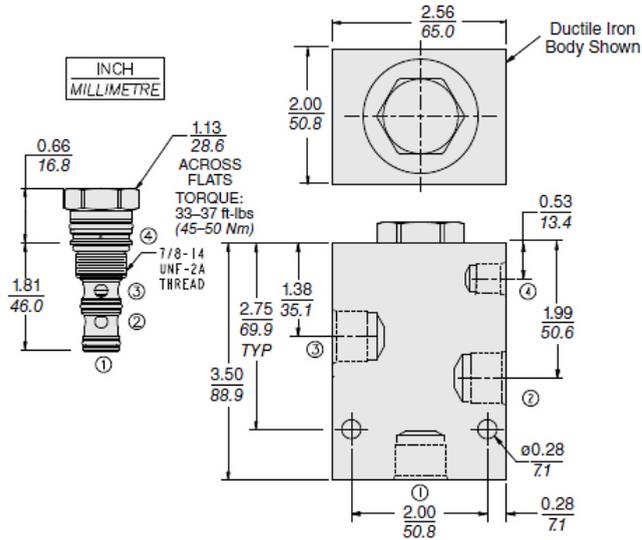
Unit weight	0.17 kg (0.38 lb)
Internal wetted surface area	134 cm <sup>2</sup> (20.7 in <sup>2</sup> )



## 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	- <b>Note:</b> Buna N
	SK10-E4V-BMM	- <b>Note:</b> Fluorocarbon
	SK10-E3U-OOO	- <b>Note:</b> Urethane



## Order Code

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