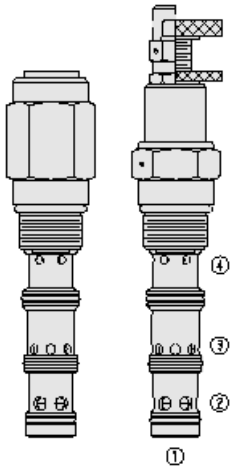




Overview



Description

Frrv12-41f/x is a screw-in, cartridge type, combination valve. It includes a pressure compensated, non adjustable priority type flow regulator and a pressure relief valve

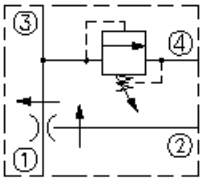
Operation

With inlet at port 1, it maintains a constant flow rate from port 3 regardless of load pressure changes at priority port 3 or bypass port 2. When the load in priority line exceeds preset value, the valve relieves pressure to port 4

Features

- Two valve functions in one, industry-common cavity.
- Adjustments cannot be backed out of the valve.
- Relief valve adjustments prohibit relief valve spring from going solid.
- Quiet, modulated response.
- Hardened parts for long life.

Symbol



Ratings

Pressure Ratings

Pressure rating	207 bar (3000 psi) 276 bar (4000 psi)	- Note: Maximum system pressure
Compensating pressure differential	5.5 bar (80 psi)	

Flow Ratings

Priority flow rating	45.4 lpm (12.0 gpm)	- Note: Maximum
Inlet flow rating	75.7 lpm (20 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
	-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

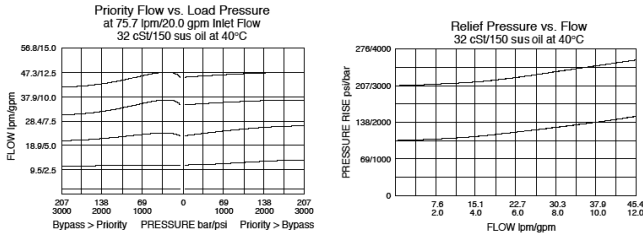
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406



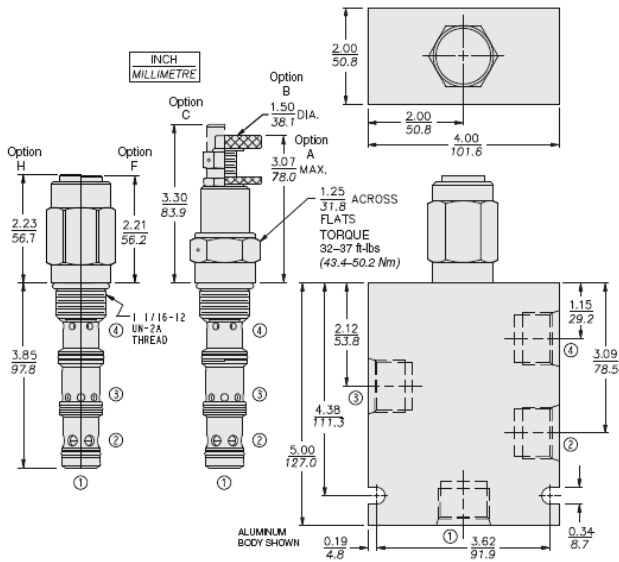
Properties

Unit weight	0.43 kg (0.95 lb)	- Note: Frrv12-41f/a
	0.45 kg (1.00 lb)	- Note: Frrv12-41f/b
	0.48 kg (1.05 lb)	- Note: Frrv12-41f/c
	0.42 kg (0.92 lb)	- Note: Frrv12-41f/f
	0.42 kg (0.92 lb)	- Note: Frrv12-41f/h
Internal wetted surface area	0.48 kg (1.05 lb)	- Note: Frrv12-41f/l
	379.9 cm ² (58.88 in ²)	

Performance



Dimensions



Materials

Materials

Cartridge: Weight: 0.43 to 0.48 kg. (0.95 to 1.05 lbs.) depending on option selected; Steel with hardened work surfaces. Zinc-plated exposed surfaces; Buna N O-rings and polyester elastomer back-ups standard. Anodized aluminum knobs and caps.

Standard Ported Body: Weight: 1.5 kg. (3.3 lbs.); Anodized high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi); Ductile iron bodies available; dimensions may differ. For Pressure Adjustment option details, see [adjustment options](#)

Installation Specifications

Cavity	VC12-4
Cartridge installation torque	45 to 50 N-m (33 to 37 ft-lb)
Orientation restriction	None

Accessories

Seal kit	Hsk12-4n-mmm, hsk12-4v-mmm, hsk12-4u-ooo
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Order Code

