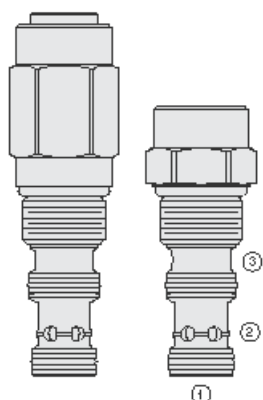




Overview



Description

EPFR52-S35 is a screw-in, cartridge style, bypass type pressure compensating element intended for use with remote fixed or variable orifice to provide a constant flow regardless of load pressure changes.

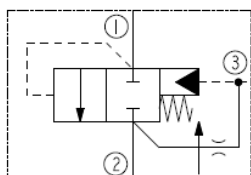
Operation

The EPFR52-S35 is spring biased spool type valve provided with a small internal orifice between ports 2 and 3 so that the valve would bypass all flow to tank at bias spring pressure value plus pressure rise at no load flow demand. The orifice is pressure compensated to restrict flow loss through it at load flow demand.

Features

- Multiple function in a single cavity.
- Low bleed flow throughout the operating pressure range.
- High system efficiency.
- Industry-common cavity.

Symbol



Ratings

Pressure Ratings

Pressure rating 345 bar (5000 psi)

Flow Ratings

Flow rating 151 lpm (40 gpm)

Maximum flow loss 0.76 lpm (0.20 gpm) - **Note:** Between ports 3 and 2 at 345 bar (5000 psi)

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 90 °C (-40 to 194 °F)	

Operating Parameters

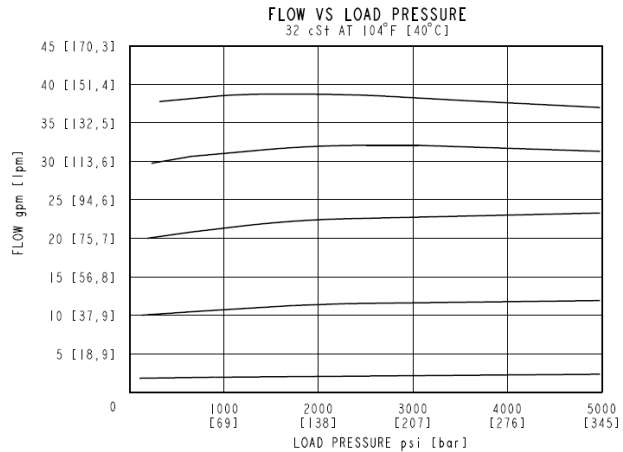
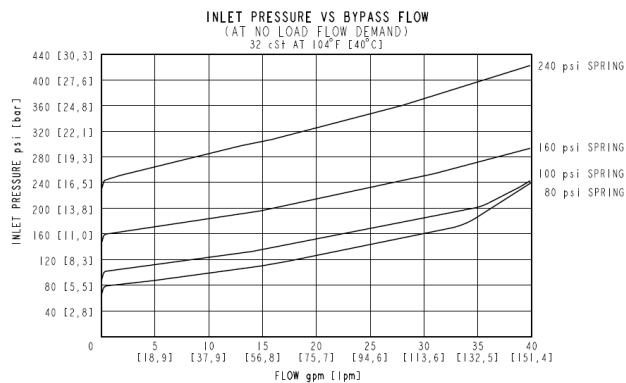
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	20/18/14 per ISO 4406

Properties

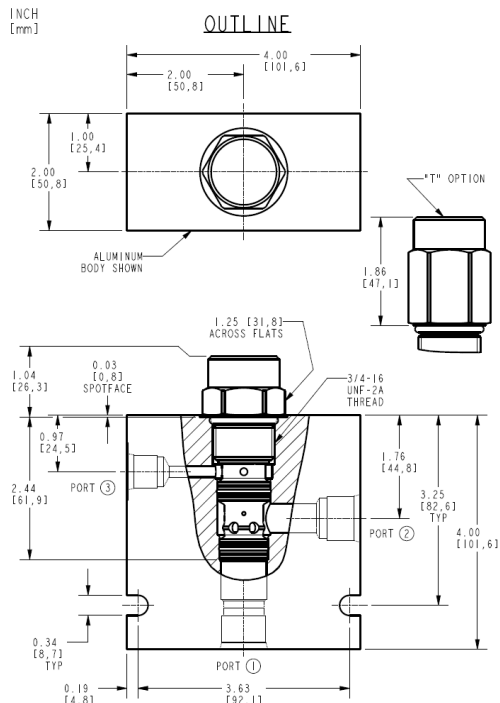
Unit weight	0.28 kg (0.61 lb)	- Note: Standard
	0.44 kg (0.97 lb)	- Note: Tall adaptor
Internal wetted surface area	208 cm ² (32.2 in ²)	- Note: Standard
	267 cm ² (41.4 in ²)	- Note: Tall adaptor



Performance



Dimensions



ALL DIMENSIONS ARE FOR REFERENCE ONLY.

Installation Specifications

Cavity	VC12-S3
Cartridge installation torque	44.7 to 50.2 N-m (33 to 37 ft-lb)
Maximum allowable torque	50.2 N-m (37 ft-lb) - Note: Aluminum 94.9 N-m (70 ft-lb) - Note: Ductile iron
Orientation restriction	None

Accessories

Seal kit	SK12-S3X-MM	- Note: X = seal option
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Order Code



ORDERING INFORMATION:

EPFR52-S35 X-X-X-XXX

BASE MODEL
NUMBEROPTIONS:

NONE - (BLANK)

*TALL ADAPTOR - T

PORTING:

CARTRIDGE ONLY - 0

SEAL OPTION:

BUNA N - N

FLUOROCARBON - V

POLYURETHANE - P

BIAS SPRING VALUE:

80 psi [5,5 bar] - 80

100 psi [6.9 bar] - 100

160 psi [11,0 bar] - 160

240 psi [16,5 bar] - 240

* "T" TALL ADAPTOR OPTION
REQUIRED FOR 160 psi AND
240 psi BIAS SPRINGS.

Model Options**EPFR52-S35C-H-J-R****C Tall Cap**

CODE	DESCRIPTION
BLANK	Standard Cap
T	Tall Cap

H Line Body

CODE	DESCRIPTION
0	No Body
12T	Aluminum SAE 12
12TD	Ductile Iron SAE 12
6BD	Ductile Iron BSPP 3/4" (6)

J Seal

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

R Spring

CODE	DESCRIPTION
80	80 psi Bias Spring
100	100 psi Bias Spring
160	160 psi Bias Spring
240	240 psi Bias Spring

