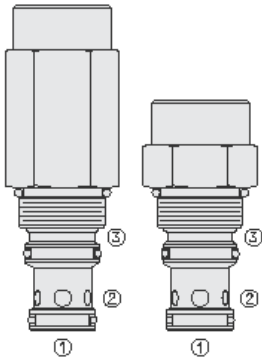
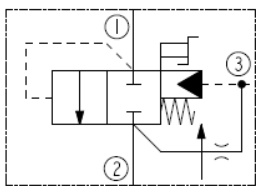




Overview



Symbol



Description

EPFR16-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

It 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.
- Range of bias spring options; tall adaptor required for higher pressures. An extra tall adaptor is required for the 240 psi bias spring option.
- High system efficiency.
- Industry-common cavity.

Ratings

Pressure Ratings

Pressure rating 241 bar (3500 psi)

Flow Ratings

Flow rating See performance graph

Maximum flow loss 0.6 lpm (0.15 gpm) - **Note:** Between ports 3 and 2 at 241 bar (3500 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

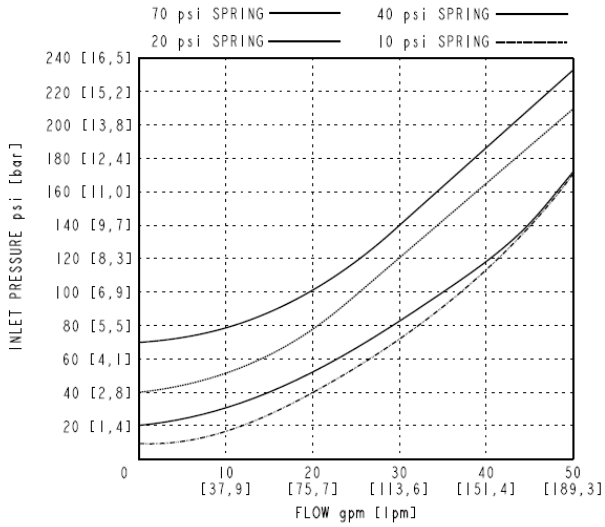
Properties

Unit weight	0.29 kg (0.64 lb)	- Note: EPFR16-S35
	0.42 kg (0.92 lb)	- Note: EPFR16-S35T
	0.72 kg (1.59 lb)	- Note: EPFR16-S35T-X-X-240
	0.57 kg (1.26 lb)	- Note: EPFR16-S35TM
	0.87 kg (1.59 lb)	- Note: EPFR16-S35TM-X-X-240
	0.62 kg (1.36 lb)	- Note: EPFR16-S35TMC
	0.91 kg (2.01 lb)	- Note: EPFR16-S35TMC-X-X-240
Internal wetted surface area	223 cm ² (34.5 in ²)	- Note: EPFR16-S35
	295 cm ² (45.7 in ²)	- Note: EPFR16-S35T
	375 cm ² (58.2 in ²)	- Note: EPFR-S35T-X-X-240
	296 cm ² (45.9 in ²)	- Note: EPFR16-S35TM
	372 cm ² (57.7 in ²)	- Note: EPFR-S35TM-X-X-240
	296 cm ² (45.9 in ²)	- Note: EPFR16-S35TMC
372 cm ² (57.7 in ²)	- Note: EPFR-S35TMC-X-X-240	

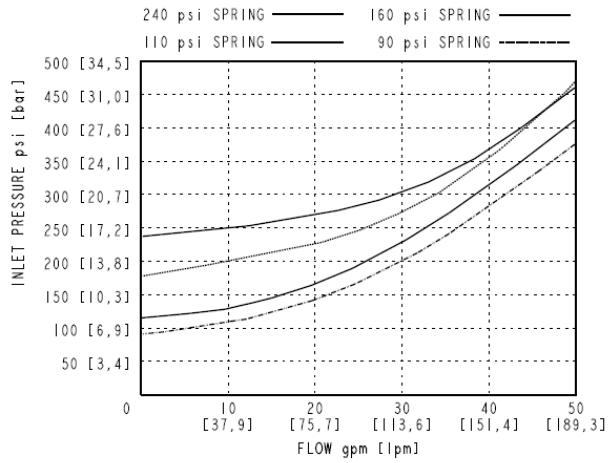


Performance

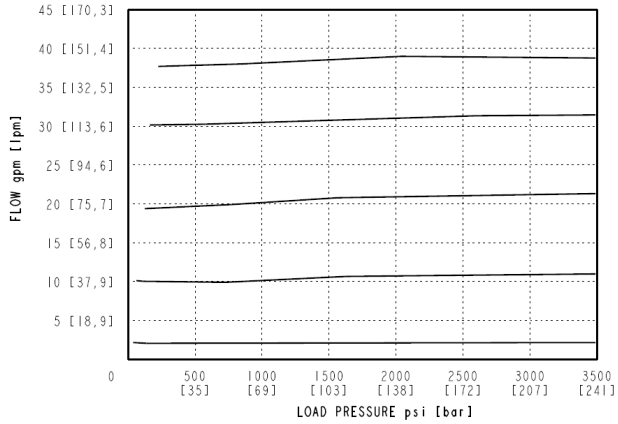
INLET PRESSURE VS BYPASS FLOW
(AT NO LOAD FLOW DEMAND)
32 cSt AT 104°F [40°C]



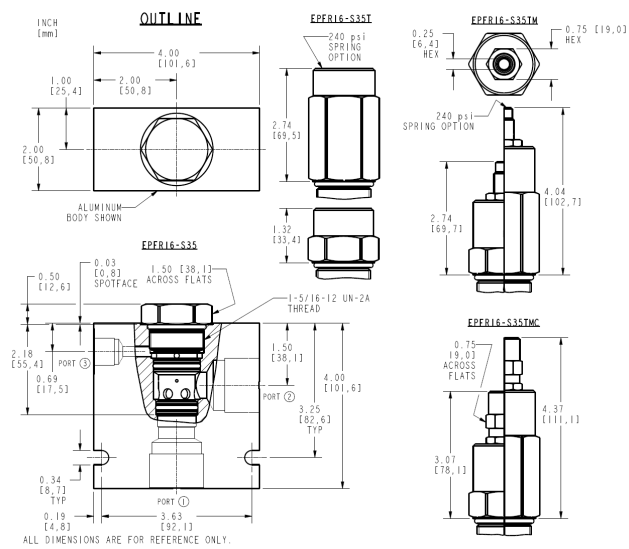
INLET PRESSURE VS BYPASS FLOW
(AT NO LOAD FLOW DEMAND)
32 cSt AT 104°F [40°C]



FLOW VS LOAD PRESSURE
32 cSt AT 104°F [40°C]



Dimensions





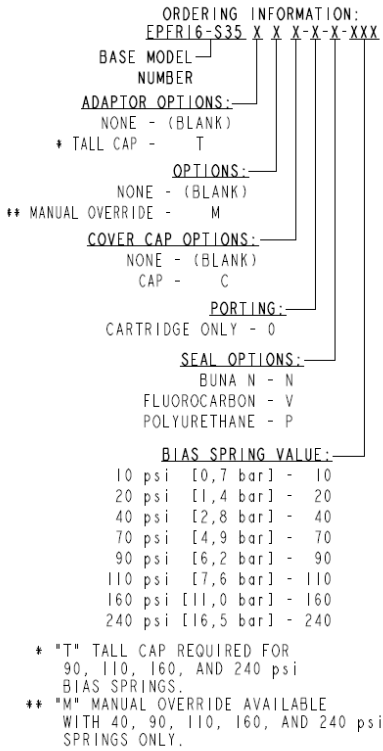
Installation Specifications

Cavity	VC16-S3
Cartridge installation torque	62.4 to 73.2 N-m (46 to 54 ft-lb)
Maximum allowable torque	136 N-m (100 ft-lb)
Orientation restriction	None

Accessories

Seal kit	SK16-S3X-MM	- Note: X = seal option
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Order Code



Model Options

EPFR16-S35CF-H-J-R

C Tall Cap

CODE	DESCRIPTION
BLANK	Standard Cap
T	Tall Cap

F Stroke Limiter

CODE	DESCRIPTION
BLANK	Standard
M	Stroke Limiter
MC	Stroke Limiter with Cover Cap

H Line Body

CODE	DESCRIPTION
0	No Body
16T	Aluminum SAE 16

J Seal



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

R Spring

CODE	DESCRIPTION
10	10 psi Bias Spring
20	20 psi Bias Spring
40	40 psi Bias Spring
70	70 psi Bias Spring
90	90 psi Bias Spring
110	110 psi Bias Spring
160	160 psi Bias Spring
240	240 psi Bias Spring