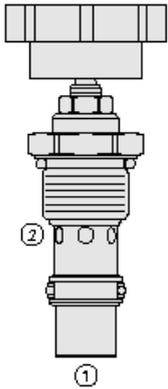




## Overview



### Description

FR12-23 is a screw-in, adjustable, pressure compensated, restrictive type with reverse flow check flow regulator cartridge valve.

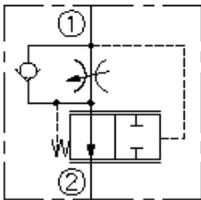
### Operation

The valve opening increases from fully closed to fully open with counterclockwise adjustment rotation. With inlet at port 1 the FR12-23X valve will maintain preset flow rate from port 2 regardless of pressure variations in the circuit. The valve is intended for use with mineral based or synthetic fluids with lubricating properties.

### Features

- Hardened parts for long life.
- Quiet, modulated response.
- Cost-effective cavity.

### Symbol



## Ratings

### Pressure Ratings

Pressure rating	241 bar (3500 psi)
Proof pressure	345 bar (5000 psi)
Burst pressure	896 bar (13000 psi)

### Flow Ratings

Flow rating	75.7 lpm (20 gpm)
Maximum internal leakage	0.12 lpm (0.03 gpm) - <b>Note:</b> 1 to 2 max fully closed

### 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 viton seals
	-54 to 107 °C (-65 to 225 °F)	- <b>Note:</b> With polyurethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 70 °C (-40 to 160 °F)	

### Other Ratings

Corrosion protection	960 hr salt spray per ASTM b117 (model number gfr12-23)
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## Operating Parameters

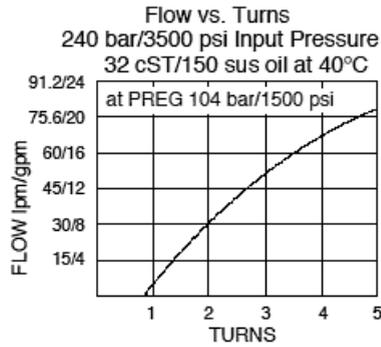
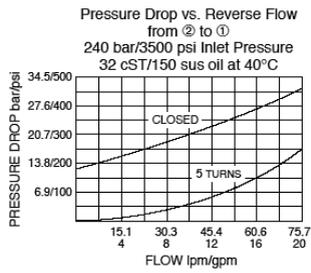
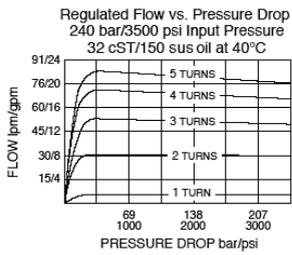
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406

## Properties

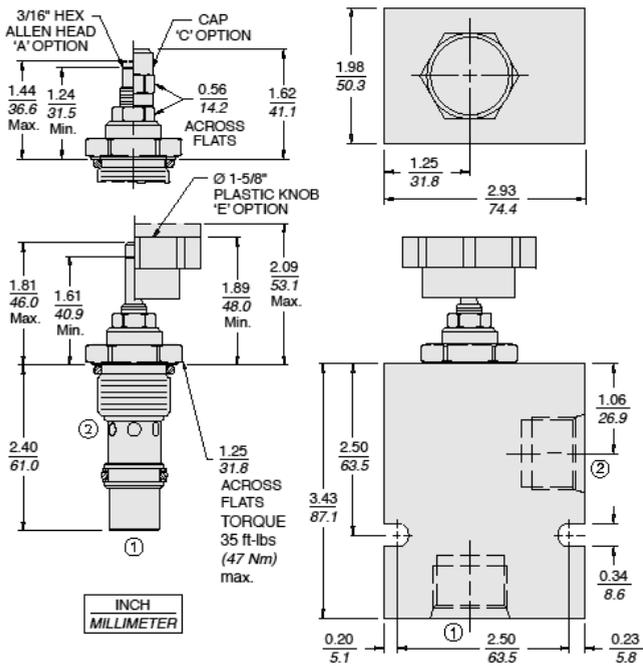
Unit weight	0.21 kg (0.48 lb)	- <b>Note:</b> FR12-23A
	0.24 kg (0.52 lb)	- <b>Note:</b> FR12-23C
	0.25 kg (0.55 lb)	- <b>Note:</b> FR12-23E
	0.22 kg (0.49 lb)	- <b>Note:</b> FR12-23 (blank)
Internal wetted surface area	204 cm <sup>2</sup> (31.64 in <sup>2</sup> )	



## Performance



## Dimensions



## Installation Specifications

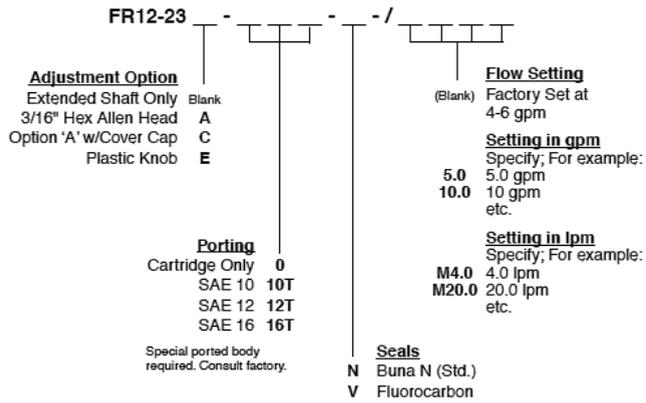
Cavity	VC12-2B
Cartridge installation torque	45 to 50 N-m (33 to 37 ft-lb)
Cover cap torque	7 to 10 N-m (5 to 7 ft-lb)
Orientation restriction	None

## Accessories

Seal kit	SK12-2X-M	- Note: X = seal option
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## Order Code



### Model Options

FR12-23F-H-J-/T

#### F Adjustment Option

CODE	DESCRIPTION
A	3/16" Hex Allen Head
BLANK	Extended Shaft Only
C	3/16" Hex Allen Head with Cover Cap
E	Plastic Knob

#### H Line Body

CODE	DESCRIPTION
0	No Body
10T	Aluminum SAE 10
12T	Aluminum SAE 12

#### J Seal

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

#### T Flow setting

CODE	DESCRIPTION
XX	Flow setting