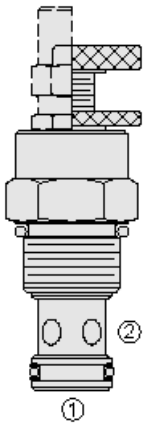




## Overview



### Description

A screw-in, cartridge style, variable orifice, hydraulic flow control valve with reverse flow check.

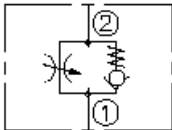
### Operation

The FC12-20 valve increases its orifice value from fully closed to fully open with counter-clockwise adjustment rotation.

### Features

- Adjustments cannot be backed out of the valve.
- Desired settings may be locked down.
- Hardened parts for long life.
- Aluminum knob option.
- Positive shut-off.
- Linear adjustment.
- 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	45.4 lpm (12 gpm)	- <b>Note:</b> At fully open, 3 turns 6.89 bar (100 psi)
Maximum internal leakage	0.15 ml/min (3 drops/min)	

### 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 polyurethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 70 °C (-40 to 160 °F)	

## Operating Parameters

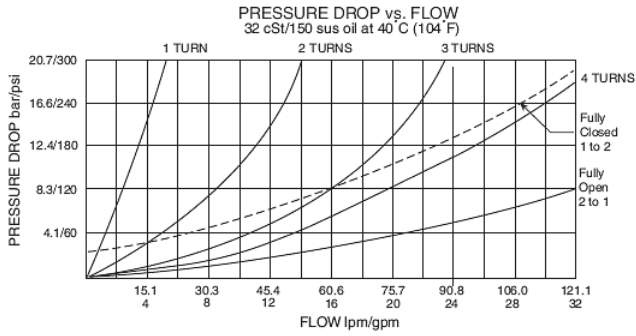
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406

## Properties

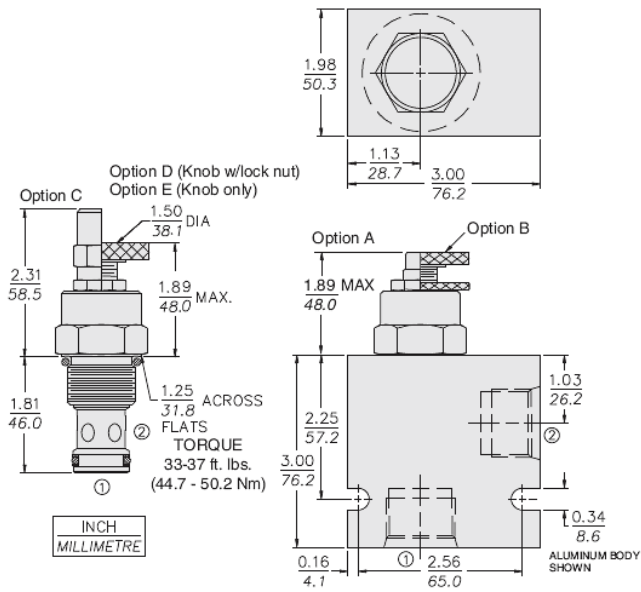
Adjustment torque	0.2 N-m (1.5 in-lb)	- <b>Note:</b> At 7 bar (100 psi)
	16.9 N-m (150 in-lb)	- <b>Note:</b> At 207 bar (3000 psi)
Unit weight	0.63 lb (0.29 kg)	- <b>Note:</b> Option "a"
	0.31 kg (0.69 lb)	- <b>Note:</b> Option "b"
	0.33 kg (0.73 lb)	- <b>Note:</b> Option "c"
	0.31 kg (0.68 lb)	- <b>Note:</b> Option "d"
	0.30 kg (0.66 lb)	- <b>Note:</b> Option "e"
Internal wetted surface area	154 cm <sup>2</sup> (23.9 in <sup>2</sup> )	



## Performance



## Dimensions



## Installation Specifications

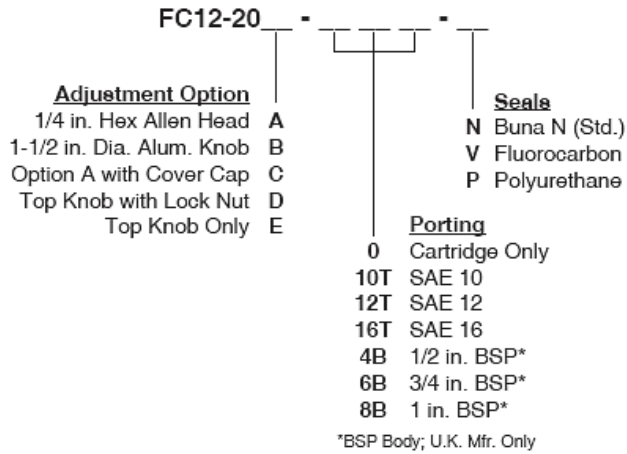
Cavity	VC12-2
Cartridge installation torque	44.7 to 50.2 N-m (33 to 37 ft-lb)
Orientation restriction	None

## Accessories

Seal kit	SK12-2X-M-115	- <b>Note:</b> X = seal option
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Order Code



Model Options

FC12-20F-H-J

F Adjustment Option

CODE	DESCRIPTION
A	1/4" Hex Allen Head
B	1-1/2" Diameter Aluminum Knob with Aluminum Lock Knob
C	1/4" Hex Allen Head with Cover Cap
D	1-1/2" Diameter Aluminum Knob with Lock Nut
E	1-1/2" Diameter Aluminum Knob Only

H Line Body

CODE	DESCRIPTION
0	No Body
10T	Aluminum SAE 10
12T	Aluminum SAE 12
16T	Aluminum SAE 16
12TD	Ductile Iron SAE 12
16TD	Ductile Iron SAE 16
8B	Aluminum BSPP 1" (8)
8BD	Ductile Iron BSPP 1" (8)

J Seal

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