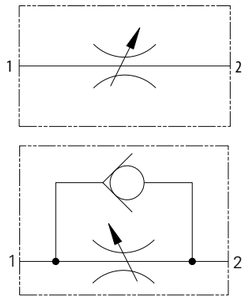
FCV7-10 - Flow restrictor valve

Needle
Up to 45 L/min (12 USgpm) • 210 bar (3000 psi)



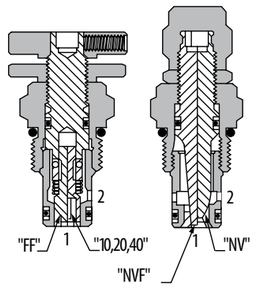
Operation

This needle valve is a variable orifice used to create a pressure drop when flow passes from port 1 to 2 or port 2 to 1.
Clockwise rotation of the adjust screw de-creases the orifice size to completely closed and anti-clockwise increases the orifice. The setting can be locked using the lock nut on the adjust screw

Features

Hardened and ground working components. Cartridge construction for maximum mounting flexibility.

Sectional view



Performance data

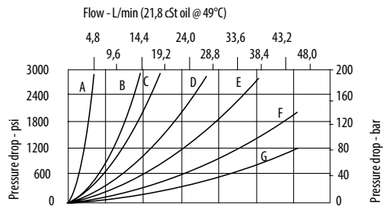
Ratings and specifications

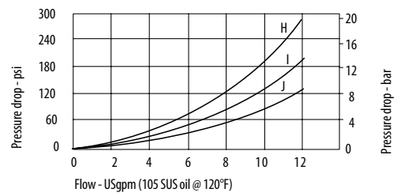
Performance data is typical with fluid at 21,8 cSt (105 SUS) and 49°C (120°F)	
Typical application pressure (all ports)	210 bar (3000 psi)
Rated flow	45 L/min (12 USgpm)
Temperature range	-40° to 120°C (-40° to 248°F)
Cavity	C–10–2
Fluids	All general purpose hydraulic fluids such as: MIL–H–5606, SAE 10, SAE 20, etc.
Filtration	ISO 4406, class 18/**16/13** or cleaner
Standard housing materials	Aluminum
Weight cartridge only	0,11 kg (0.25 lbs.)
Seal kits	565806 Buna N 889627 Viton®

Viton is a registered trademark of E.I. DuPont

Pressure drop

Cartridge only





Description

This is a manually adjusted cartridge type needle valve. With fine control it is ideal for none compensated speed control of actuators or as a control orifice in conjunction with a pressure compensator Total shut off can be achieved allowing the valve to be used as a shut of valve.

Typical flow regulation (full open)

Curve	Code option*	Flow direction port:	Valve condition
A	10	2 to 1	Open
		1 to 2	Closed
B	20	2 to 1	Open
		1 to 2	Closed
C	10	1 to 2	Open
D	40	2 to 1	Open
		1 to 2	Closed
E	NVF	Both directions	Open

Curve	Code option	Flow direction port	Valve condition
F	20	1 to 2	Open
G	40	1 to 2	Open
H	FF	2 to 1	Open
I	FF	1 to 2	Open & Closed
J	NV	Both directions	Open

*See controlled flow option in model code.

Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.

FCV7-10 - Flow restrictor valve

Needle
Up to 45 L/min (12 USgpm) • 210 bar (3000 psi)

Model code

FCV7 – 10 (V) – * – ** – * – 00**

1 2 3 4 5 6 7

1 Function

FCV7 – Flow regulator

2 Size

10 - 10 size

3 Seal material

Blank - Buna-N
V - Viton®

4 Style

C - Cap
K - Knob
S - Screw

5 Port size

Code	Port size	Housing number	
		Aluminium light duty	Aluminium fatigue rated
3B	3/8" BSPP	02–175462	–
6T	SAE 6	566151	–
2G	1/4" BSPP	–	876702
3G	3/8" BSPP	–	876703
6H	SAE 6	–	8767008H
8H	SAE 8	–	876701

See section J for housing details.

6 Controlled flow option

		Maximum flow range (nominal)
NV	Needle valve	0–45 L/min (0-12 USgpm)
NVF	Needle valve, fine	0–38 L/min (0-10 USgpm)
FF	Needle valve with free reverse flow	0–45 L/min (0-12 USgpm)
10	Flow range, type 10, with free reverse flow	0–6,6 L/min (0-1.75 USgpm)
20	Flow range, type 20, with free reverse flow	0–14 L/min (0-3.75 USgpm)
40	Flow range, type 40, with free reverse flow	0–27 L/min (0-7.25 USgpm)

7 Special features

00 - None
(Only required if valve has special features, omit if ("00")

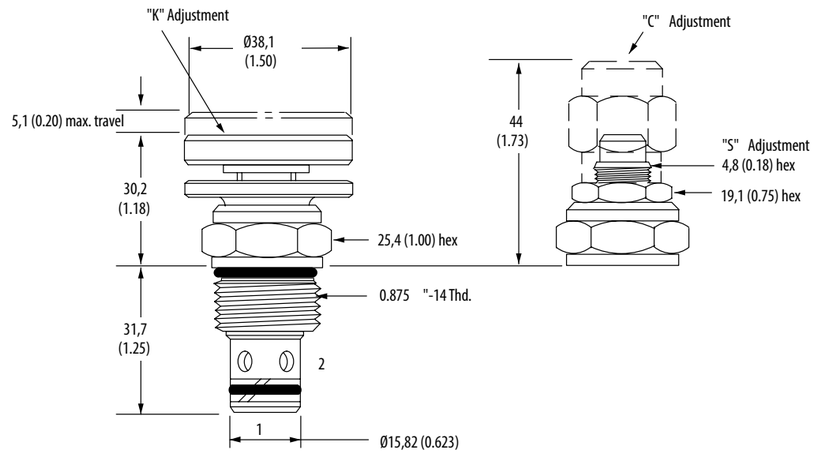
Dimensions

mm (inch)

Torque cartridge in aluminum housing to 47–54 Nm (35–40 ft.lbs)

Cartridge only

Basic code FCV7-10



Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.