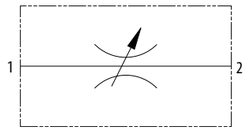
FCV11-12 - Flow restrictor valve

Needle
114 L/min • 350 bar (5000 psi)



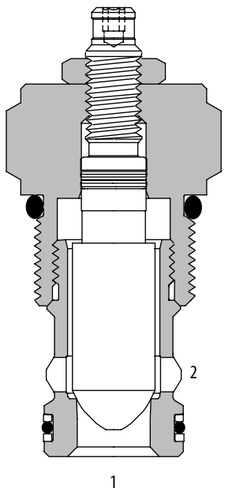
Operation

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)	350 bar (5000 psi) Port "1" to "2" 210 bar (3000 psi) Port "1" to "2"
Cartridge fatigue pressure (infinite life)	350 bar (5000 psi)
Rated flow	114 L/min (30 USgpm)
Internal leakage	less than 5 drops/min maximum @ 210 bar (3000 psi)
Temperature range	-40° to 120°C (-40° to 248°F)
Cavity	C-12-2 or C-12-2U
Fluids	All general purpose hydraulic fluids such as MIL-H-5606, SAE 10, SAE 20 etc.
Filtration	Cleanliness code 18/**16/13**
Standard housing material	Aluminum or steel
Weight cartridge only	0,24 kg (0.54 lbs)
Seal kit	2–165889 (Buna-N) 02–165888 (Viton")

Viton is a registered trademark of E.I. DuPont

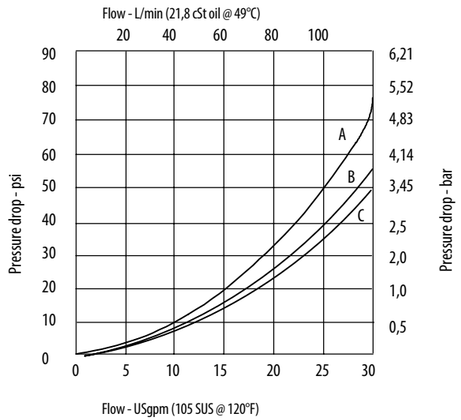
Description

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.

Pressure drop curves

Cartridge only

A - Cartridge with C-12-2 valve body, full open
B - Cartridge with C-12-2U valve body, full open
C - Cartridge only, full open



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

FCV11-12 - Flow restrictor valve

Needle
114 L/min • 350 bar (5000 psi)

Model code

FCV11 – 12 (V) – S – * – * – (U) – NV – 00**

1 2 3 4 5 6 7 8 9

1 Function

FCV11 - Flow control valve

2 Size

12 - 12 size

3 Seal material

Blank - Buna-N
V - Viton®

4 Adjustment

S - Screw
K - Knob

5 Valve housing material

Blank - No body
A - Aluminum
S - Steel

6 Port size

Code	Port size	Housing number			
		C-12-2U Aluminium fatigue rated	C-12-2 Aluminium fatigue rated	C-12-2U Steel fatigue rated	C-12-2 Steel fatigue rated
0	Cartridge only				
10T(U)	SAE 10	02–160641	02–160640	02–169817	02–169744
12T(U)	SAE 12	02–160645	02–160644	02v169790	02–169782
4G(U)	1/2" BSPP	02–161116	02–161118	02–172512	02–172062
6G(U)	3/4" BSPP	02–161115	02–161117	02–162922	02–169665

See section J for housing details.

7 Cavity

Blank – Cavity without undercut
U – Cavity with undercut

8 Valve type

NV – Needle Valve (Adjustable)

9 Special features

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

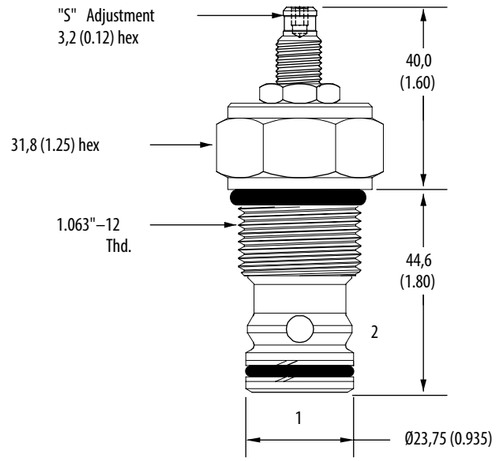
Dimensions

mm (inch)

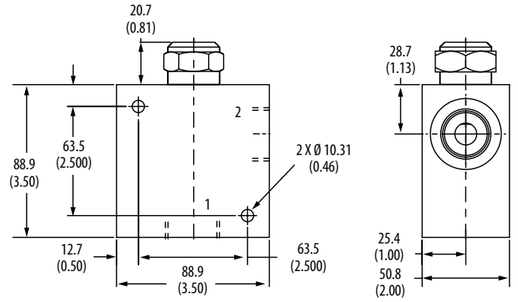
Torque cartridge in housing
A - 81–95 Nm (60–70 ft lbs)
S - 102–115 Nm (75–85 ft lbs)

Cartridge only

Basic code
FCV11-12



Installation drawing (Steel)



⚠ Warning

Aluminum housings can be used for pressures up to 210 bar (3000 psi). Steel housings **must** be used for operating pressures **above** 210 bar (3000 psi).

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