Flow Control Valves

FCV7-10

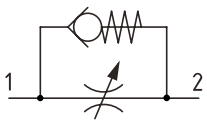
Needle Valve, Fully Adjustable with Reverse Free Flow

210 bar [3000 psi] • 45 l/min [12 US gpm]

DESCRIPTION AND OPERATION

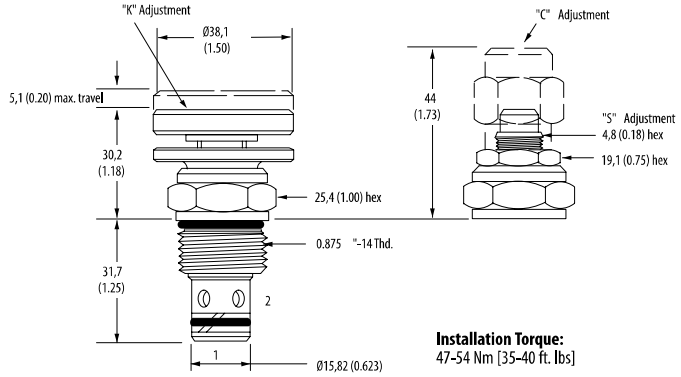
This is a needle valve with a reverse free flow check. It is a variable orifice used to create a pressure drop when flow passes from port 2 to 1, while allowing free flow when flow passes from 1 to 2. Clockwise rotation of the adjustment screw decreases the flow setting until it is completely closed. The setting can be locked by tightening lock nut or knob on the adjustment screw.

SCHEMATIC



DIMENSIONS

mm [in]

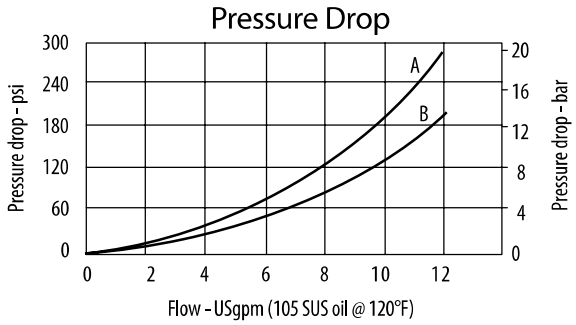


Installation Torque:
47-54 Nm [35-40 ft. lbs]

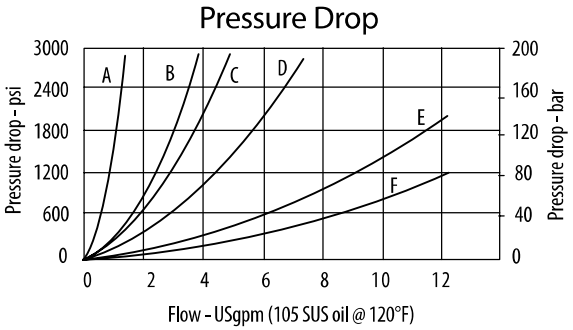
PERFORMANCE DATA

Rated pressure	**210 bar [3000 psi]**
Rated flow	**45 l/min [12 US gpm]**
Weight	0.11 kg [0.25 lbs]
Cavity	SDC10-2

PERFORMANCE CURVES



A ("FF" code) - Port 2 to 1 (open)
B ("FF" code) - Port 1 to 2 (open and closed)



A ("10" code) - Port 2 to 1 (open) and port 1 to 2 (closed)
B ("20" code) - Port 1 to 2 (open) and port 1 to 2 (closed)
C ("10" code) - Port 1 to 2 (open)
D ("40" code) - Port 2 to 1 (open) and port 1 to 2 (closed)
E ("20" code) - Port 1 to 2 (open) • **F ("40" code)** - Port 1 to 2 (open)

MODEL CODE

FCV7 - 10 - V - C - 3B - FF

Seal Option

Code	Seal Kit
Omit-Buna - N	565806
V-Viton	889627

Adjustment Option

C- Tamper Resistant
K - Knob
S - External

Housing

Code	Ports	Aluminium Standard duty	Aluminium Heavy duty
0	No housing		
3B	3/8" BSP	02-175462	-
6T	#6 SAE	566151	-
2G	1/4" BSP	-	876702
3G	3/8" BSP	-	876703
6H	#6 SAE	-	876700
8H	#8 SAE	-	876701

* Aluminum bodies are to be used for pressures less than 210 bar [3000 psi].
* Additional housings available

Flow Range

Code	l/min	US gpm
FF	0-45	[0-12]
10	0-6.6	[0-1.75]
20	0-14	[0-3.75]
40	0-27	[0-7.25]