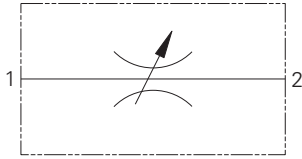


NV1-8 - Flow restrictor valve

Needle

45 L/min (12 USgpm) • 210 Bar (3000 psi)

Dynamic signal (PFRD)



Operation

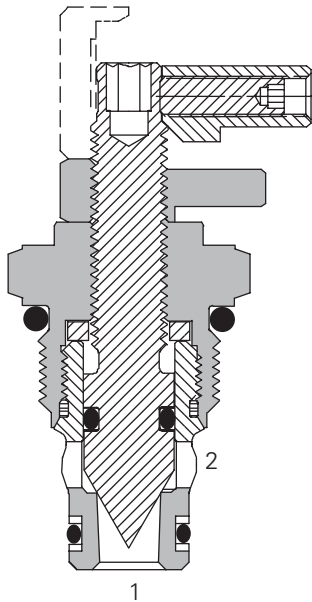
This needle valve is a variable orifice used to create a pressure drop when flow passes from port 1 to port 2 or port 2 to 1. Clockwise rotation of the adjust screw decreases

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) steel housing 210 bar (3000 psi) aluminum housing
Cartridge fatigue pressure (infinite life)	280 bar (4000 psi)
Rated flow	45 L/min (12 USgpm)
Internal leakage	5 drops/min. maximum @ 350 bar (5000 psi)
Temperature range	-40° to 120°C (-40° to 248°F)
Cavity	C-8-2
Fluids	All general purpose hydraulic fluids such as: MIL-H-5606, SAE 10, SAE 20, etc.
Filtration	Cleanliness code 18/16/13
Standard housing materials	Aluminum or steel
Weight cartridge only	0,07 kg. (0.15 lbs.)
Seal Kits	02-165875 Buna-N 02-165877 Viton®

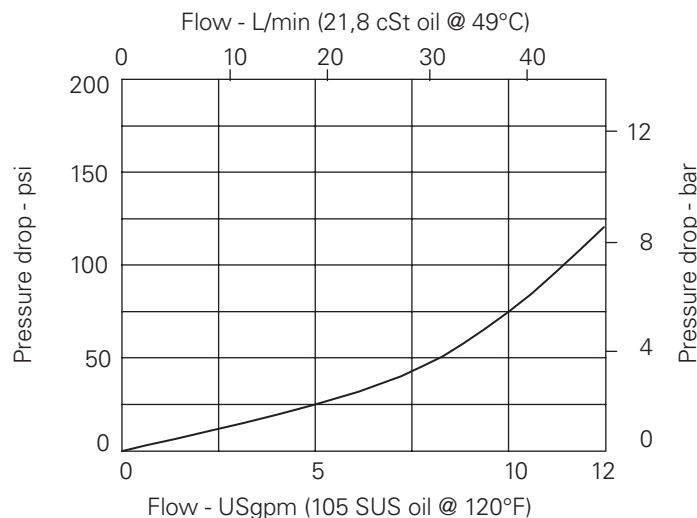
Viton is a registered trademark of E.I. DuPont

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 off valve.

Pressure drop

Cartridge only



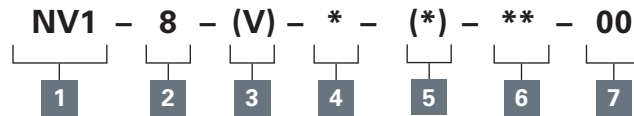
Fully open port 1 to port 2 or port 2 to port 1

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

NV1-8 - Flow restrictor valve

Needle
45 L/min (12 USgpm) • 210 Bar (3000 psi)

Model code



1 Function

NV1 - Needle valve

2 Size

8 - 8 size

3 Seal material

Blank - Buna-N
V - Viton®

4 Style

S - Screw
C - Cap
K - Knob

5 Valve housing material

Omit - Cartridge only
S - Steel
A - Aluminum

6 Port size

Code	Port size	Housing number	
		Aluminium fatigue duty	Aluminium fatigue rated
0	Cartridge only		
4T	SAE 4	02-160730	02-160736
6T	SAE 6	02-160731	02-160737
8T	SAE 8	02-160732	02-160738
2G	1/4" BSPP	02-160727	02-160733
3G	3/8" BSPP	02-160728	02-160734

See section J for housing details.

7 Special features

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

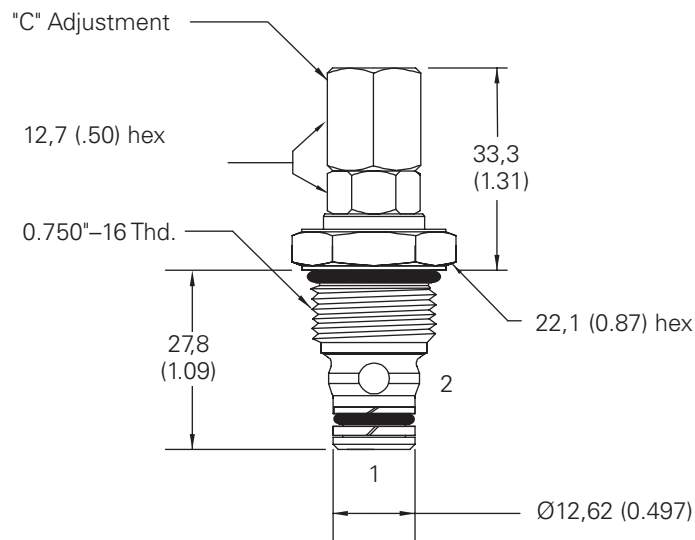
Dimensions

mm (inch)

Cartridge only

Basic code
NV1-8

Torque cartridge in
aluminum or steel housing
34-41 Nm (25-30 ft lbs)



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).

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