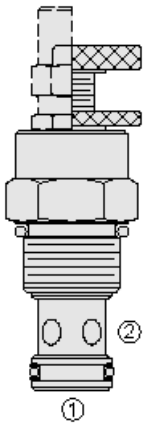




Overview



Description

A screw-in, cartridge style, variable orifice, hydraulic flow restrictor valve

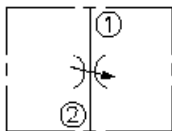
Operation

The NV12-20 valve increases its orifice size 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	See pressure drop vs. Flow chart
Maximum internal leakage	0.15 ml/min (3 drops/min) - Note: At shut-off

Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F)	- Note: With buna N seals
	-26 to 204 °C (-15 to 400 °F)	- Note: With fluorocarbon seals
	-54 to 107 °C (-65 to 225 °F)	- Note: With polyurethane seals
	-40 to 149 °C (-40 to 300 °F)	- Note: With HNBR seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 70 °C (-40 to 160 °F)	

Operating Parameters

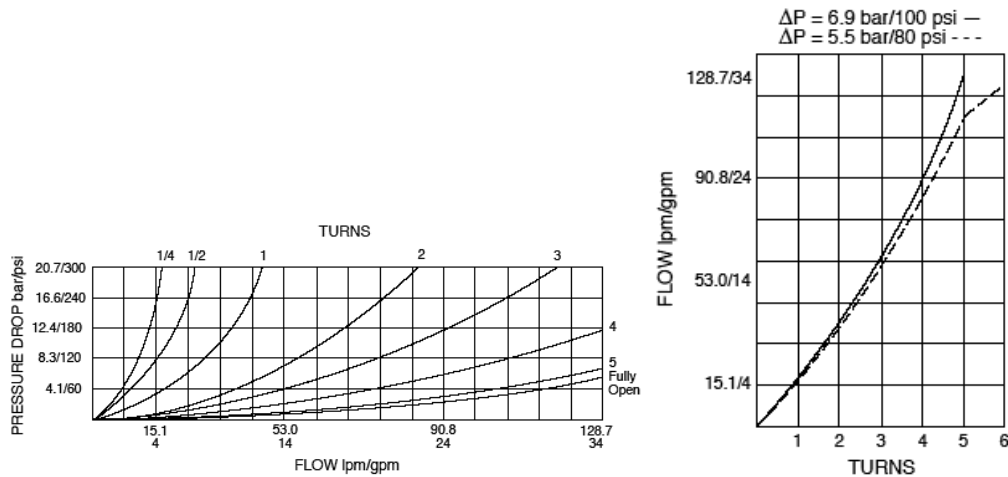
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per iso4406

Properties

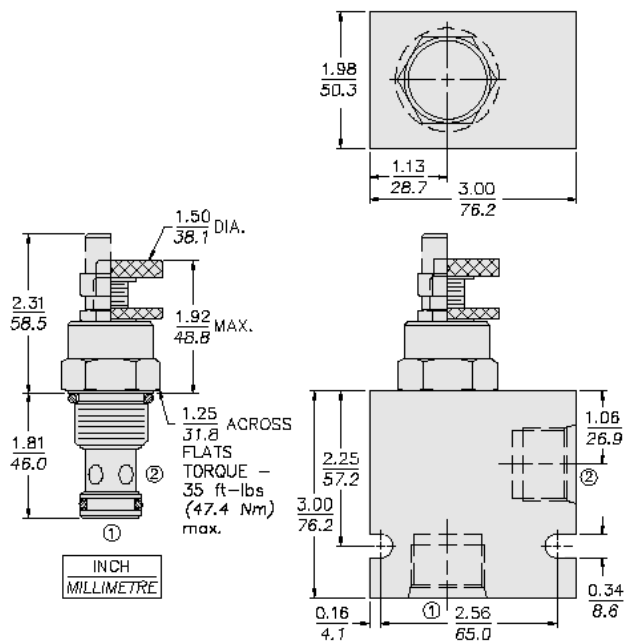
Adjustment torque	0.2 N-m (1.5 in-lb)	- Note: At 7 bar (100 psi)
	16.9 N-m (150 in-lb)	- Note: At 207 bar (3000 psi)
Unit weight	0.32 kg (0.70 lb)	- Note: Option A
Internal wetted surface area	129 cm ² (20 in ²)	



Performance



Dimensions



Materials

Materials

Cartridge: Weight: 0.32 kg (0.70 lb); Steel with hardened work surfaces. Zinc-plated exposed surfaces; Buna N O-rings and polyester elastomer back-ups standard. Anodized aluminum knobs.

Standard Ported Body: Weight: 0.57 kg (1.25 lb); Anodized high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi); Ductile iron bodies available; dimensions may differ.

Installation Specifications

Cavity	VC12-2
Cartridge installation torque	45 to 50 N-m (33 to 37 ft-lb)
Maximum allowable torque	102 N-m (75 ft-lb)
Orientation restriction	None

Accessories

Seal kit	SK12-2X-M-115	- Note: X = seal option
Housings		



Order Code

POSITION	CODE	DESCRIPTION
		NV12-20F-H-J
F		Adjustment Option
F	A	1/4" Hex Allen Head
F	B	1-1/2" Diameter Aluminum Knob with Aluminum Lock Knob
F	C	1/4" Hex Allen Head with Cover Cap
F	D	1-1/2" Diameter Aluminum Knob with Lock Nut
F	E	1-1/2" Diameter Aluminum Knob Only
F	L	1/4" Hex Allen Head with Cover Cap and Lockwire Holes
H		Line Body
H	0	No Body
H	10T	Aluminum SAE 10
H	12T	Aluminum SAE 12
H	16T	Aluminum SAE 16
H	12TD	Ductile Iron SAE 12
H	16TD	Ductile Iron SAE 16
H	8B	Aluminum BSPP 1" (8)
H	8BD	Ductile Iron BSPP 1" (8)
J		Seal
J	N	Buna-N
J	V	Fluorocarbon
J	P	Polyurethane
J	U	PPDI Urethane

NV12-20 - - -

