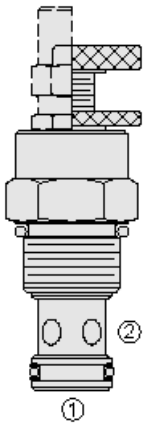




Overview



Description

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

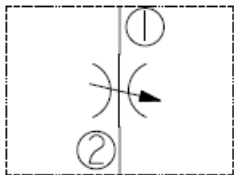
Operation

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

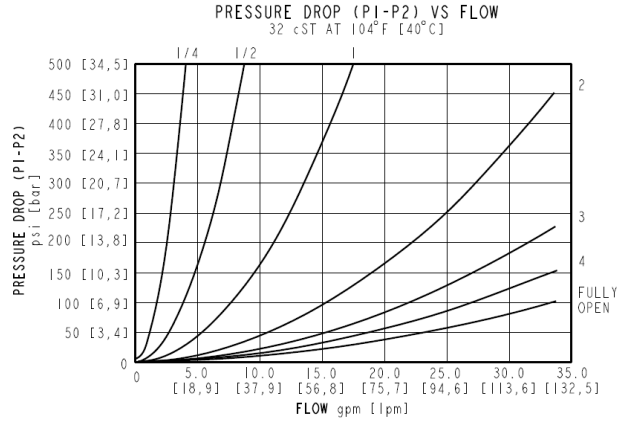
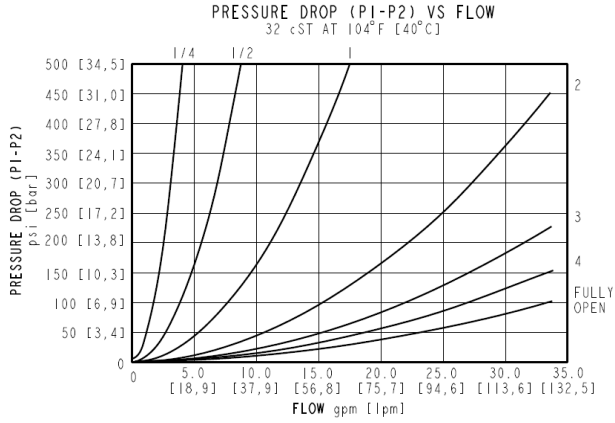
| | |
|---------------------------------------|--|
| Fluids | Mineral based or synthetic hydraulic fluid with lubricating properties |
| Fluid viscosity range | 7.4 to 420 cSt |
| Maximum operating contamination level | 18/16/13 per iso4406 |

Properties

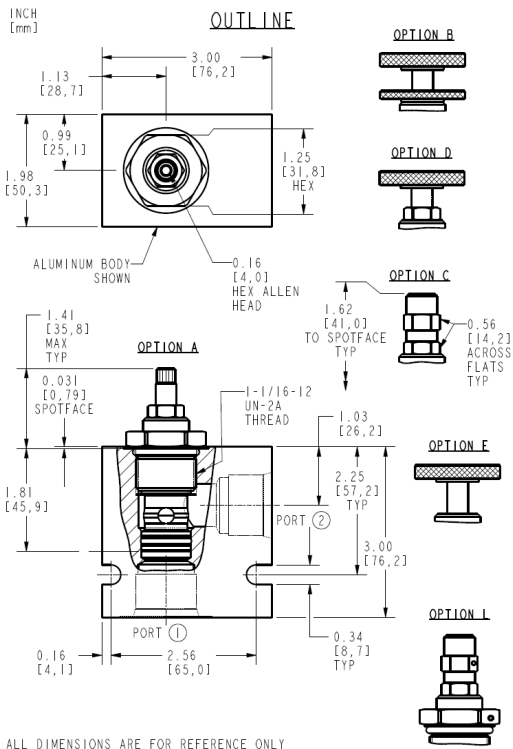
| | |
|------------------------------|---|
| Adjustment torque | 0.3 to 0.6 N-m (3to 5 in-lb) - Note: At 241 bar (3500 psi) |
| Unit weight | 0.23 kg (0.50 lb) - Note: Option A |
| Internal wetted surface area | 94 cm ² (14.6 in ²) |



Performance



Dimensions



Installation Specifications

| | |
|-------------------------------|----------------------------------|
| Cavity | VC12-2 or HNV12-2 |
| Cartridge installation torque | 122 to 136 N-m (90 to 100 ft-lb) |
| Orientation restriction | None |

Accessories

| | |
|----------|---|
| Seal kit | SK12-2X-M-115 - Note: Buna N, Fluorocarbon, HNBR |
| | SK12-2P-0 - Note: Polyurethane |

Order Code



ORDERING INFORMATION:

NV12-20 X - X - X

BASE MODEL NUMBER

ADJUSTMENT OPTIONS

- 1/4 HEX ALLEN HEAD - A
- Ø1-1/2 ALUMINUM KNOB - B
- OPTION A WITH COVER CAP - C
- TOP KNOB WITH LOCK NUT - D
- TOP KNOB ONLY - E
- OPTION C WITH LOCKWIRE HOLES - L

PORTING

CARTRIDGE ONLY - 0

SEAL OPTIONS

- BUNA N - N
- FLUOROCARBON - V
- POLYURETHANE - P
- HNBR - G

Model Options

NV12-20F-H-J

F Adjustment Option

| CODE | DESCRIPTION |
|------|---|
| A | 1/4" Hex Allen Head |
| B | 1-1/2" Diameter Aluminum Knob with Aluminum Lock Knob |
| C | 1/4" Hex Allen Head with Cover Cap |
| D | 1-1/2" Diameter Aluminum Knob with Lock Nut |
| E | 1-1/2" Diameter Aluminum Knob Only |
| L | 1/4" Hex Allen Head with Cover Cap and Lockwire Holes |

H Line Body

| CODE | DESCRIPTION |
|------|--------------------------|
| 0 | No Body |
| 10T | Aluminum SAE 10 |
| 12T | Aluminum SAE 12 |
| 16T | Aluminum SAE 16 |
| 12TD | Ductile Iron SAE 12 |
| 16TD | Ductile Iron SAE 16 |
| 8B | Aluminum BSPP 1" (8) |
| 8BD | Ductile Iron BSPP 1" (8) |

J Seal

| CODE | DESCRIPTION |
|------|---------------|
| N | Buna-N |
| V | Fluorocarbon |
| P | Polyurethane |
| U | PPDI Urethane |