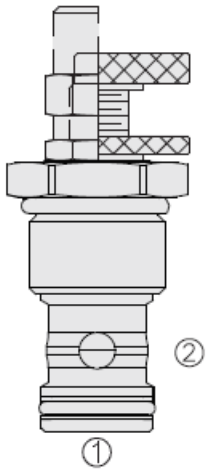




Overview



Description

HNV12-20 is a screw-in, cartridge style, variable orifice, hydraulic flow restrictor valve.

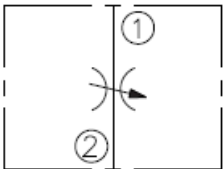
Operation

The valve increases its orifice size from fully closed to fully open with counter-clockwise adjustment rotation.

Features

- Rated for high pressure operation.
- Compact size.
- Can be used with HyPerformance[®] ductile iron body or standard ductile iron body.
- Adjustments cannot be backed out of the valve.
- Desired settings may be locked down.
- Hardened parts for long life.
- Variety of adjustment options available.
- Positive shut-off.
- Linear adjustment.

Symbol



Ratings

Pressure Ratings

| | |
|-----------------|----------------------|
| Pressure rating | 350 bar (5075 psi) |
| Proof pressure | 689 bar (10000 psi) |
| Burst pressure | 1379 bar (20000 psi) |

Flow Ratings

| | |
|--------------------------|--|
| Flow rating | See pressure drop vs. Flow chart |
| Maximum internal leakage | 0.15 ml/min (3 drops/min) - Note: Max 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 urethane seals |
| Storage temperature | 40 to 70 °C (-40 to 160 °F) | |
| Ambient temperature | 40 to 70 °C (-40 to 160 °F) | |

Other Ratings

| | |
|----------------------|---------------------------------|
| Corrosion protection | 960 hr salt spray per ASTM b117 |
|----------------------|---------------------------------|

Operating Parameters

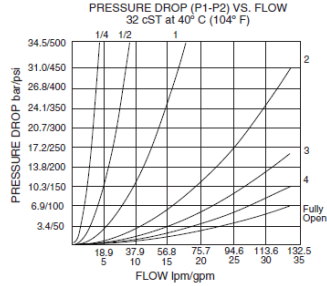
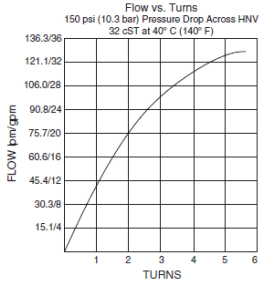
| | |
|---------------------------------------|--|
| Fluids | Mineral based or synthetic hydraulic fluid with lubricating properties |
| Fluid viscosity range | 7.4 to 420 cSt |
| Maximum operating contamination level | 18/16/13 per iso4406 |



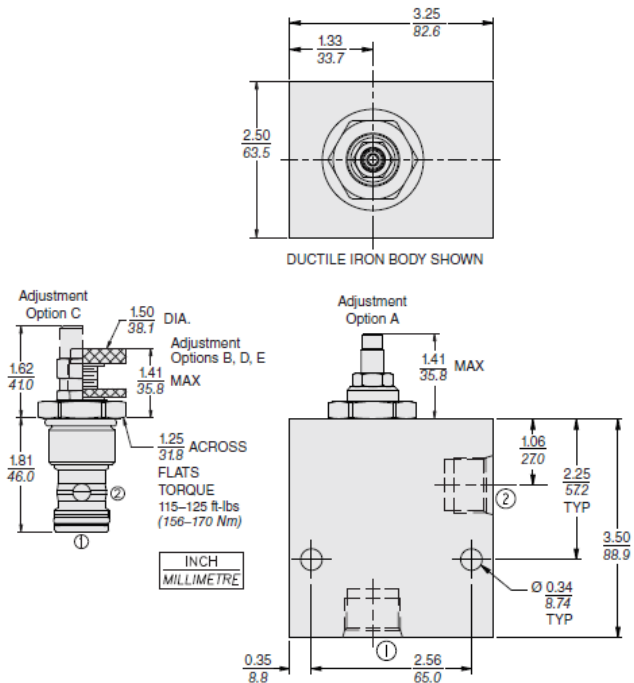
Properties

| | | |
|------------------------------|--|--------------------------------------|
| Adjustment torque | 0.3 to 0.6 N-m (3 to 5 in-lb) | - Note: At 345 bar (5000 psi) |
| Unit weight | 0.32 kg (0.50 lb) | - Note: Option A |
| Internal wetted surface area | 94.2 cm ² (14.6 in ²) | |

Performance



Dimensions



Installation Specifications

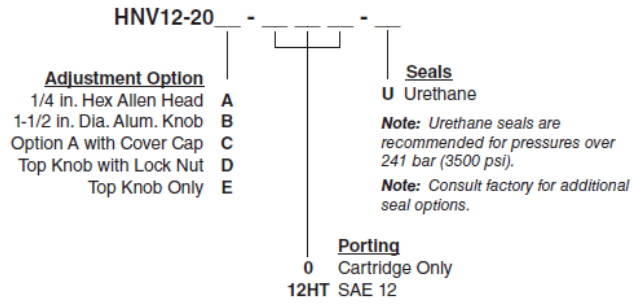
| | |
|-------------------------------|-----------------------------------|
| Cavity | VC12-2 HVC12-2 |
| Cartridge installation torque | 156 to 170 N-m (115 to 125 ft-lb) |
| Orientation restriction | None |

Accessories

| | |
|----------|---|
| Seal kit | SK12-2N-M-115 - Note: Buna N |
| | SK12-2V-M-115 - Note: Fluorocarbon |
| | SK12-2U-0 - Note: Urethane |



Order Code



Model Options

HNV12-20F-H-J

F Adjustment Option

| CODE | DESCRIPTION |
|------|---|
| A | 5/32" Hex Allen Head |
| B | 1-1/2" Diameter Aluminum Knob with Aluminum Lock Knob |
| C | 5/32" Hex Allen Head with Cover Cap |
| D | 1-1/2" Diameter Aluminum Knob with Lock Nut |
| E | 1-1/2" Diameter Aluminum Knob Only |

H Line Body

| CODE | DESCRIPTION |
|------|---------------------|
| 0 | No Body |
| 12HT | Ductile Iron SAE 12 |

J Seal

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