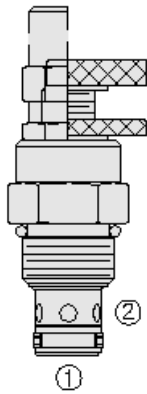




Overview



Description

A screw-in, cartridge style, variable orifice, hydraulic flow control valve with reverse flow check.

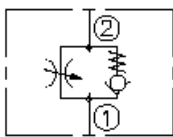
Operation

The FC10-20 valve increases its orifice value 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.
- Industry-common 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 | 45.5 lpm (12 gpm) | - Note: At fully open, 3 turns 6.89 bar (100 psi) |
| Maximum internal leakage | 0.5 ml/min (10 drops/min) | |

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 |
| 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 (model number - gfc10-20) |
|----------------------|---|

Operating Parameters

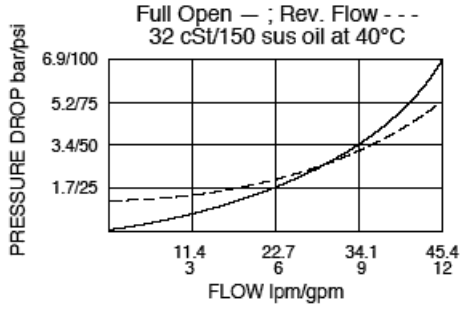
| | | |
|---------------------------------------|--|--|
| Fluids | Mineral based or synthetic hydraulic fluid with lubricating properties | |
| Fluid viscosity range | 7.4 to 420 cSt | |
| Maximum operating contamination level | 18/16/13 per iso4406 | |

Properties

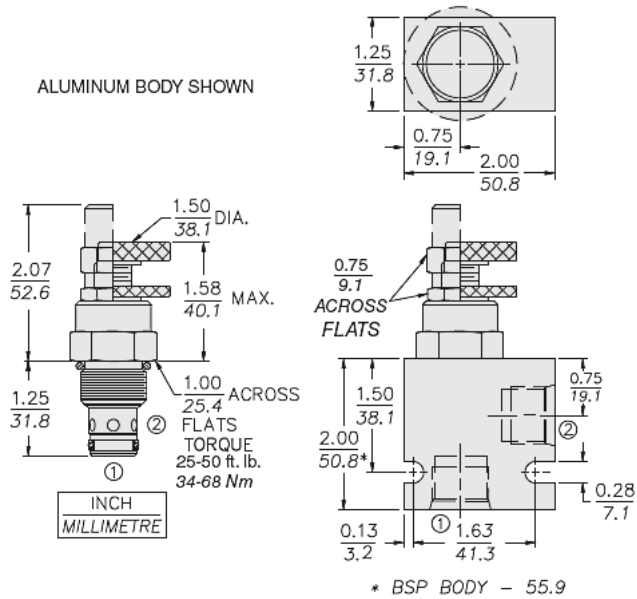
| | | |
|------------------------------|--|--------------------------------------|
| Adjustment torque | 0.34 N-m (3 in-lb) | - Note: At 207 bar (3000 psi) |
| Unit weight | 0.15 kg (0.33 lb) | - Note: Option A |
| Internal wetted surface area | 96 cm ² (14.9 in ²) | |



Performance



Dimensions



Installation Specifications

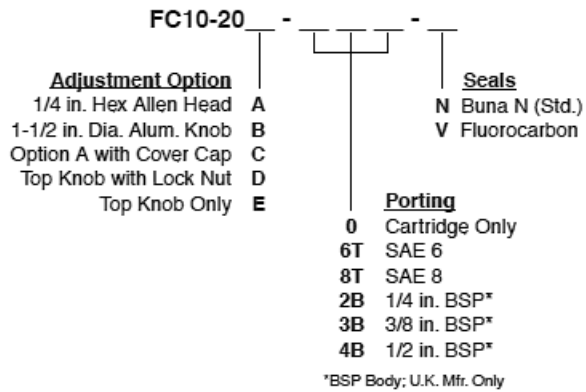
| | |
|---|---|
| <p>Cavity</p> <p>Cartridge installation torque</p> <p>Orientation restriction</p> | <p>VC10-2</p> <p>34 to 36.7 N-m (25 to 27 ft-lb)</p> <p>None (reference all sheets) description and specifications all dimensions are for reference only. Outline option "d" option "e" d:3.2 m:3.2 1.00 25,4 [] across flats 7/8-14 unf-2a thread option "a" option "b" option "c" aluminum body shown 0.25 6,4 [] hex allen head inch [mm] 2 1 port 1 port 2 x FC10-20 x-x-x base model number porting cartridge only - 0 seal options buna N - N fluorocarbon - V polyurethane - P (consult factory or catalog for other available options) adjustment option(s) 1/4 hex allen head - A b option A with cover cap - c top knob with lock nut - d top knob only - e</p> |
|---|---|

Accessories

| | |
|-----------------|---|
| <p>Seal kit</p> | <p>SK10-2X-M (x = seal option) - Note: X = seal option</p> |
|-----------------|---|



Order Code



Model Options

FC10-20F-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 |

H Line Body

| CODE | DESCRIPTION |
|------|----------------------------|
| 0 | No Body |
| 6T | Aluminum SAE 6 |
| 8T | Aluminum SAE 8 |
| 6TD | Ductile Iron SAE 6 |
| 8TD | Ductile Iron SAE 8 |
| 2B | Aluminum BSPP 1/4" (2) |
| 3B | Aluminum BSPP 3/8" (3) |
| 4B | Aluminum BSPP 1/2" (4) |
| 4BD | Ductile Iron BSPP 1/2" (4) |

J Seal

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