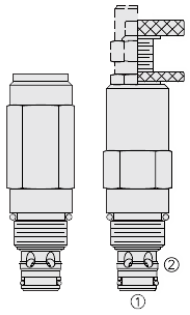
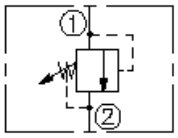
PILOT OPERATED RELIEF VALVE U.S. PATENT # 7,137,406

Overview



SYMBOL



Description

RV10-26X is a screw in, cartridge style, pilot operated (two stage), spool type hydraulic relief valve, intended for use as a pressure limiting device in demanding hydraulic circuits which require fast response and low hysteresis.

Operation

The RV10-26X blocks flow from port 1 to port 2 until sufficient pressure is present at port 1 to force the piloting relief off its seat, allowing the main (second stage) spool to shift, opening port 1 to port 2.

note: this valve cannot be used in cross-over relief applications.

Features

- Adjustments cannot be backed out of the valve.
- Adjustment options A, B and C: positive stops prevent springs from going solid.
- Hardened spool and cage for long life.
- Optional spring ranges to 207 bar (3000 psi).
- Fast, smooth response to pressure surges.
- Industry common cavity.

Ratings

Pressure Ratings

Pressure rating: 241 bar (3500 psi)

Proof pressure: 517.1 bar (7500 psi)

Burst pressure: 1037.7 bar (15000 psi)

Relief pressure defined: Pressure evident at

7.57 lpm (2 gpm)

Reseat pressure: Nominal 90% of crack

Relief pressure range: 6.9 to 206.8 bar (100 to 3000 psi)

Flow Ratings

Flow rating: 113.6 lpm (30 gpm)

Maximum internal leakage: 114.7 ml/min (7 in^3/min) note: At port 2 at 85% of crack pressure. Pressure setting below 137.9 bar (2000 psi)

491.6 ml/min (30 in^3/min) note: At port 2 at 85% of crack pressure. Pressure setting above 137.9 bar (2000 psi)

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 and 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: Grv10-26x 960 hour salt spray per ASTM b117 cartridge weight

Operating Parameters

Fluids: Mineral based or synthetic with lubricating properties

Fluid viscosity range: 7.4 to 420 cSt

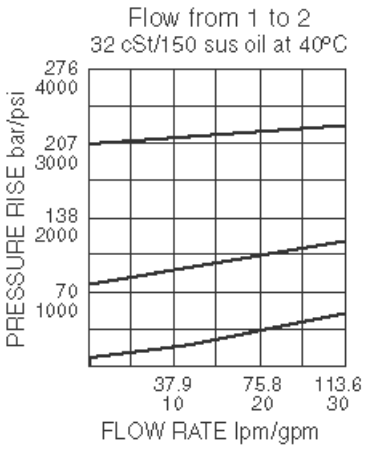
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Maximum operating contamination level: 18/16/13 per ISO 4406

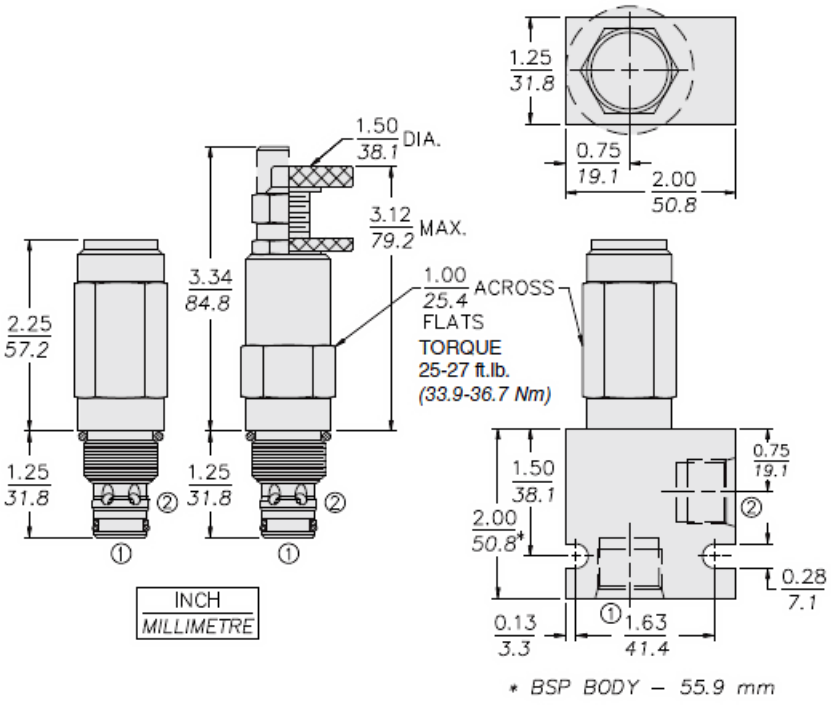
Properties

Unit weight: 0.25 kg (0.55 lb) note: A
0.27 kg (0.60 lb) note: B
0.29 kg (0.65 lb) note: C l
0.24 kg (0.53 lb) note: F h
Internal wetted surface area: 141 cm^2 (21.8 in^2) note: A b c l
161 cm^2 (24.9 in^2) note: F h

Performance



Dimensions



PILOT OPERATED RELIEF VALVE U.S. PATENT # 7,137,406

Installation Specifications

Cavity: VC10-2

10-size-2-way Cavities

Cartridge installation torque: 33.9 to 36.7 N-m (25 to 27 ft-lb)

66.7 N-m (50 ft-lb) note: Maximum allowable

Adjuster cap torque: 32.5 to 35.3 N-m (24 to 26 ft-lb)

Orientation restriction: None

Accessories

Seal kit: SK10-2X-B note: X = n, v, P

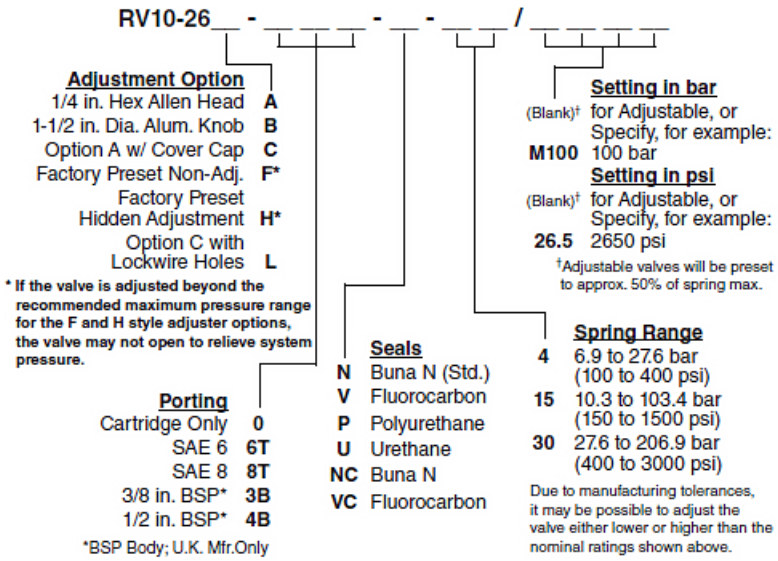
SK10-2X-M note: X = NC, VC

SK10-2X-O note: X = U

Seal kit installation instructions

Housings: Available 10-2w valve bodies

Order Code



Model Options

RV10-26F-H-J-R/S

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
F	Factory Preset Non-Adjustable
H	Factory Preset Hidden Adjustment
L	1/4" Hex Allen Head with Cover Cap and Lockwire Holes

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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

R Spring

CODE	DESCRIPTION
04	6.9 to 27.6 bar (100 to 400 psi) Spring Range
15	10.3 to 103.4 bar (150 to 1500 psi) Spring Range
30	27.6 to 206.8 bar (400 to 3000 psi) Spring Range

S Setting

CODE	DESCRIPTION
MXXX	Spring Setting in XXX bar
XX	Spring Setting in XX psi (x 100)