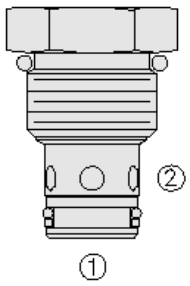
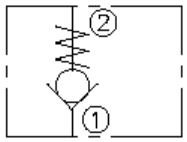
CHECK VALVE

Overview



SYMBOL



Description

The CV10-20X is a screw-in, cartridge style, hydraulic check valve for use as a blocking or load-holding device.

Operation

The CV10-20X allows flow passage from port 1 to port 2, while normally blocking oil flow in the opposite direction. The cartridge has a fully guided check which is spring-biased closed until sufficient pressure is applied at port 1 to open to port 2.

Features

- Hardened seat for long life and low leakage.
- Optional bias springs for back-pressure application flexibility.
- 300 psi bias spring option with tall cap available.
- Fully guided check assembly.
- Industry-common cavity.

Ratings

Pressure Ratings

Pressure rating: 240 bar (3500 psi)

Proof pressure: 350 bar (5075 psi)

Flow Ratings

Flow rating: 75.8 lpm (20 gpm)

Maximum internal leakage: 2 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

-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 90 °C (-40 to 194 °F)

Other Ratings

Corrosion protection: Gcv10-20 - 960 hour 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: 20/18/14 per ISO 4406

Properties

Unit weight: 0.08 kg (0.18 lb)

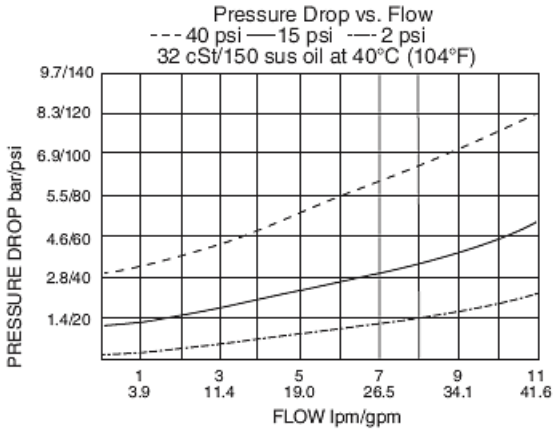
0.12 kg (0.26 lb) note: "t" option

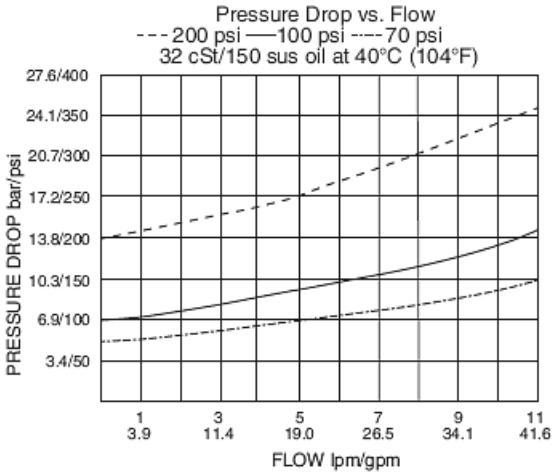
Internal wetted surface area: 71 cm^2 (11 in^2)

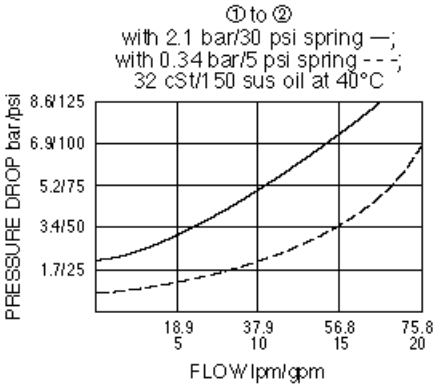
90 cm^2 (14 in^2) note: "t" option

CHECK VALVE

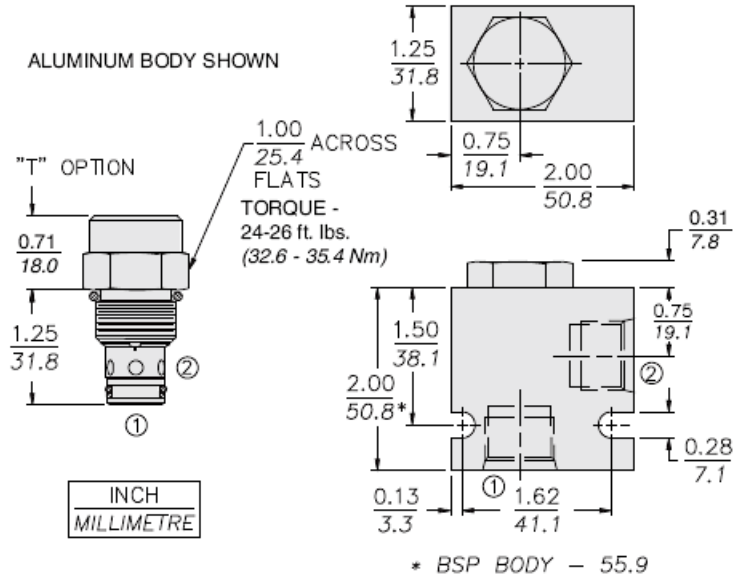
Performance







Dimensions



CHECK VALVE

Installation Specifications

Cavity: VC10-2

10-size-2-way Cavities

Cartridge installation torque: 32.6 to 35.4 N-m (24 to 26 ft-lb)

Maximum allowable torque: 67.8 N-m (50 ft-lb)

Orientation restriction: None

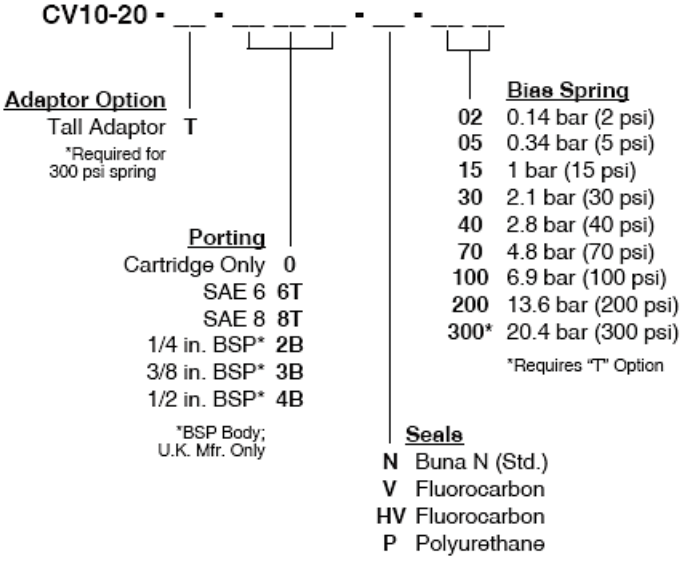
Accessories

Seal kit: SK10-2X-T

Seal kit installation instructions

Housings: Available 10-2w valve bodies

Order Code



Model Options

CV10-20C-H-J-R

C Tall Cap

CODE	DESCRIPTION
BLANK	Standard Cap
T	Tall Cap

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)

CHECK VALVE

J Seal

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

R Spring

CODE	DESCRIPTION
2	2 psi Bias Spring
5	5 psi Bias Spring
15	15 psi Bias Spring
30	30 psi Bias Spring
40	40 psi Bias Spring
70	70 psi Bias Spring
100	100 psi Bias Spring
200	200 psi Bias Spring
300	300 psi Bias Spring