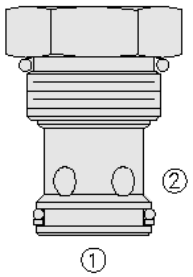
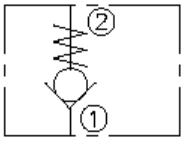
CHECK VALVE CARTRIDGE

Overview



SYMBOL



Description

The CV16-20X is a screw-in, cartridge style, hydraulic check valve for use as a blocking or load-holding device.

Operation

The CV16-20X allows flow passage from port 1 to port 2, while normally blocking oil flow in the opposite direction. The cartridge valve has a fully guided poppet 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.
- Industry-common cavity.

Ratings

Pressure Ratings

Pressure rating: 241 bar (3500 psi)

Flow Ratings

Flow rating: 151 lpm (40 gpm)

Maximum internal leakage: 0.25 ml/min (5 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 viton 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)

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: 0.28 kg (0.61 lb) note: (regular)

0.39 kg (0.87 lb) note: (tall adaptor for 100 psi and 150 psi springs)

0.57 kg (1.25 lb) note: (tall adaptor for 225 psi spring)

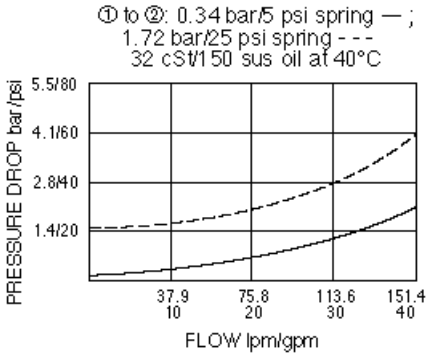
Internal wetted surface area: 170 cm^2 (26.3 in^2) note: (regular)

229 cm^2 (35.5 in^2) note: (tall adaptor for 100 psi and 150 psi springs)

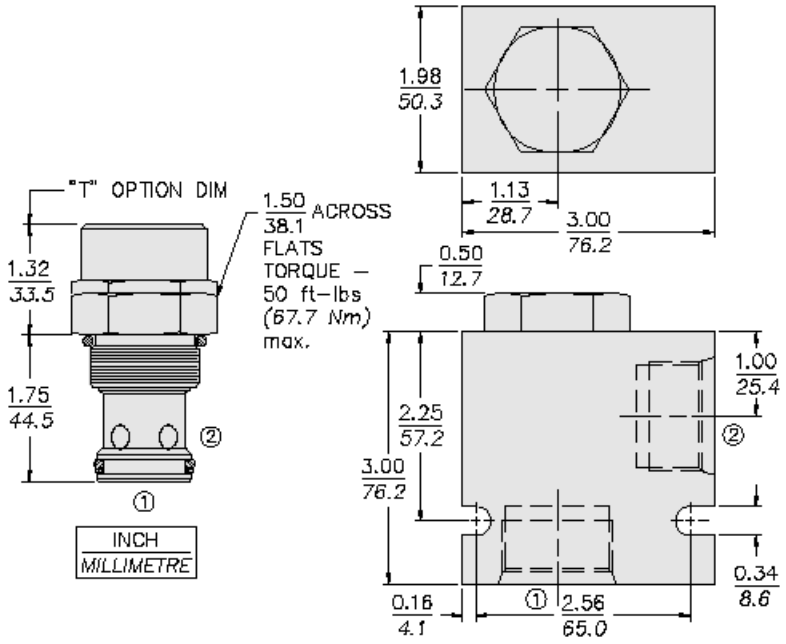
286 cm^2 (44.4 in^2) note: (tall adaptor for 225 psi spring)

CHECK VALVE CARTRIDGE

Performance



Dimensions



Installation Specifications

Cavity: VC16-2

16-size-2-way Cavities

Cartridge installation torque: 62.4 to 73.2 N-m (46 to 54 ft-lb)

Orientation restriction: None

Accessories

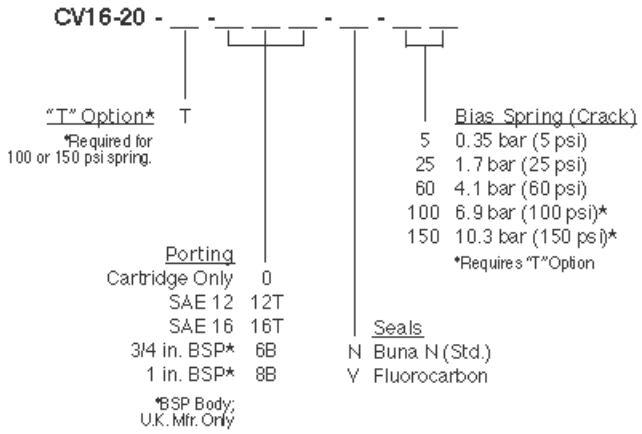
Seal kit: SK16-2X-T

Seal kit installation instructions

Housings: Available 16-2w valve bodies

CHECK VALVE CARTRIDGE

Order Code



Model Options

CV16-20C-H-J-R

C Tall Cap

CODE	DESCRIPTION
BLANK	Standard Cap
T	Tall Cap

H Line Body

CODE	DESCRIPTION
0	No Body
12T	Aluminum SAE 12
16T	Aluminum SAE 16
12TD	Ductile Iron SAE 12
6B	Aluminum BSPP 3/4" (6)
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

R Spring

CODE	DESCRIPTION
5	5 psi Bias Spring
8	8 psi Bias Spring
15	15 psi Bias Spring
25	25 psi Bias Spring
45	45 psi Bias Spring
60	60 psi Bias Spring
100	100 psi Bias Spring
150	150 psi Bias Spring
225	225 psi Bias Spring