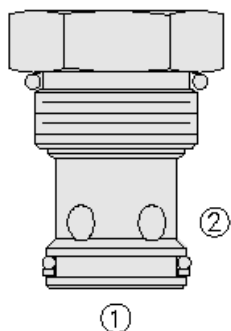




Overview



Description

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

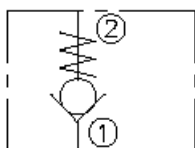
Operation

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.

Symbol



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) - **Note:** At 241 bar (3500 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 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

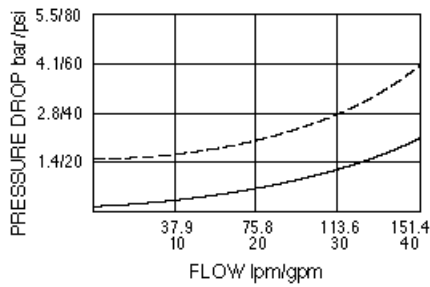
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	20/18/14 per ISO 4406

Properties

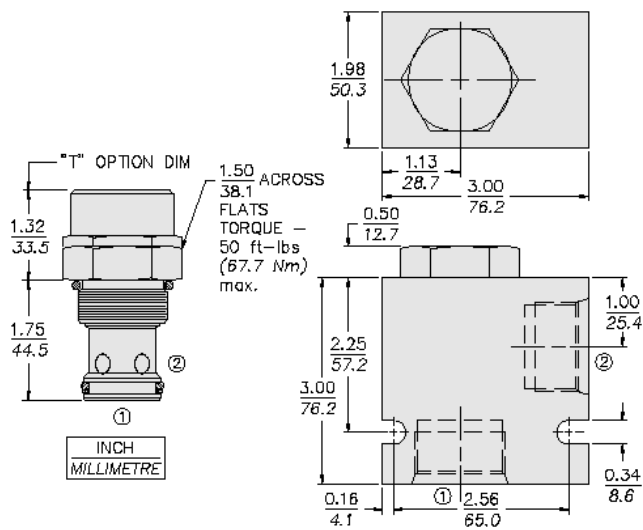
Unit weight	0.28 kg (0.61 lb)	- Note: (regular)
	0.39 kg (0.87 lb)	- Note: (tall adaptor for 100 psi and 150 psi springs)
	0.57 kg (1.25 lb)	- Note: (tall adaptor for 225 psi spring)
Internal wetted surface area	170 cm ² (26.3 in ²)	- Note: (regular)
	229 cm ² (35.5 in ²)	- Note: (tall adaptor for 100 psi and 150 psi springs)
	286 cm ² (44.4 in ²)	- Note: (tall adaptor for 225 psi spring)

Performance

① to ②: 0.34 bar/5 psi spring — ;
1.72 bar/25 psi spring - - -
32 cSt/150 sus oil at 40°C



Dimensions



Installation Specifications

Cavity	VC16-2
Cartridge installation torque	62.4 to 73.2 N-m (46 to 54 ft-lb)
Orientation restriction	None

Accessories

Seal kit SK16-2X-T - **Note:** X = seal option

Order Code

CV16-20	-	-	-	-	-
	T				
"T" Option*					Bias Spring (Crack)
Required for 100 or 150 psi spring.					5 0.35 bar (5 psi) 25 1.7 bar (25 psi) 60 4.1 bar (60 psi) 100 6.9 bar (100 psi) 150 10.3 bar (150 psi)*
					*Requires "T" Option
Porting					
Cartridge Only	0				
SAE 12	12T				
SAE 16	16T				
3/4 in. BSP*	6B			N	Buna N (Std.)
1 in. BSP*	8B			V	Fluorocarbon
*BSP Body; U.K. Mfr. Only					

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