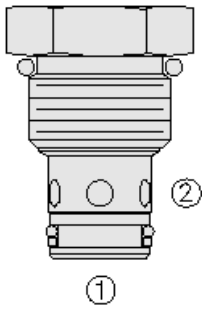




Overview



Description

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

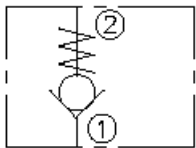
Operation

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.

Symbol



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 - Note: At 240 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 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
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Operating Parameters

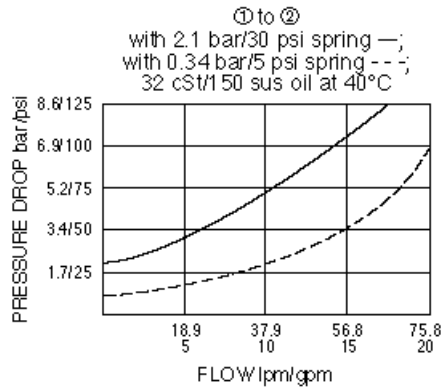
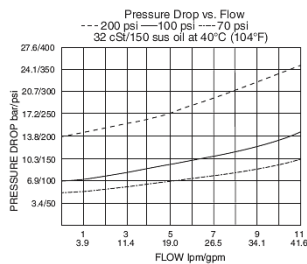
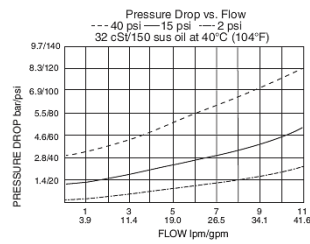
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	20/18/14 per ISO 4406

Properties

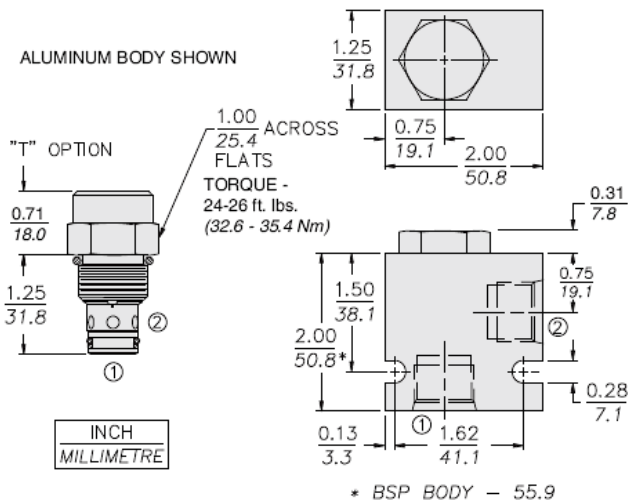
Unit weight	0.08 kg (0.18 lb)	
	0.12 kg (0.26 lb)	- Note: "t" option
Internal wetted surface area	71 cm ² (11 in ²)	
	90 cm ² (14 in ²)	- Note: "t" option



Performance



Dimensions



Materials

Materials

Cartridge: Weight: 0.08 kg. (0.17 lbs.); Steel with hardened work surfaces. Zinc-plated exposed surfaces; Buna N O-rings and back-ups standard.

Standard Ported Body: Weight: 0.16 kg. (0.35 lbs.); Anodized high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi); Ductile iron bodies available; dimensions may differ.

Installation Specifications

Cavity	VC10-2
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	- Note: X = seal option
Housings		



Order Code

CV10-20 -			
Adaptor Option	T		
Tall Adaptor			
*Required for 300 psi spring			
Porting			
Cartridge Only	0		
SAE 6	6T		
SAE 8	8T		
1/4 in. BSP*	2B		
3/8 in. BSP*	3B		
1/2 in. BSP*	4B		
*BSP Body; U.K. Mfr. Only			
		Bias Spring	
		02	0.14 bar (2 psi)
		05	0.34 bar (5 psi)
		15	1 bar (15 psi)
		30	2.1 bar (30 psi)
		40	2.8 bar (40 psi)
		70	4.8 bar (70 psi)
		100	6.9 bar (100 psi)
		200	13.6 bar (200 psi)
		300*	20.4 bar (300 psi)
		*Requires "T" Option	
		Seals	
		N	Buna N (Std.)
		V	Fluorocarbon
		HV	Fluorocarbon
		P	Polyurethane

POSITION	CODE	DESCRIPTION
		CV10-20C-H-J-R
C		Tall Cap
C	BLANK	Standard Cap
C	T	Tall Cap
H		Line Body
H	0	No Body
H	6T	Aluminum SAE 6
H	8T	Aluminum SAE 8
H	6TD	Ductile Iron SAE 6
H	8TD	Ductile Iron SAE 8
H	2B	Aluminum BSPP 1/4" (2)
H	3B	Aluminum BSPP 3/8" (3)
H	4B	Aluminum BSPP 1/2" (4)
H	4BD	Ductile Iron BSPP 1/2" (4)
J		Seal
J	N	Buna-N
J	V	Fluorocarbon
J	P	Polyurethane
J	U	PPDI Urethane
R		Spring
R	2	2 psi Bias Spring
R	5	5 psi Bias Spring
R	15	15 psi Bias Spring
R	30	30 psi Bias Spring
R	40	40 psi Bias Spring
R	70	70 psi Bias Spring
R	100	100 psi Bias Spring
R	200	200 psi Bias Spring
R	300	300 psi Bias Spring