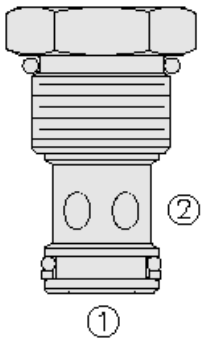




## Overview



### Description

The CV12-20 is a screw-in, cartridge style, hydraulic check valve for use as a blocking or load-holding device.

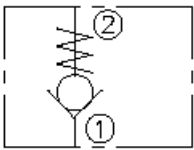
### Operation

The CV12-20 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.
- Fully guided check assembly.
- Cost-effective cavity.

### Symbol



## Ratings

### Pressure Ratings

Pressure rating 240 bar (3500 psi)

### Flow Ratings

Flow rating - **Note:** See performance graph  
 Maximum internal leakage 5 drops/min - **Note:** At 240 bar (3500 psi)

### Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F)	- <b>Note:</b> With buna N seals
	-26 to 204 °C (-15 to 400 °F)	- <b>Note:</b> With fluorocarbon seals
	-54 to 107 °C (-65 to 225 °F)	- <b>Note:</b> With polyurethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 90 °C (-40 to 194 °F)	

## Operating Parameters

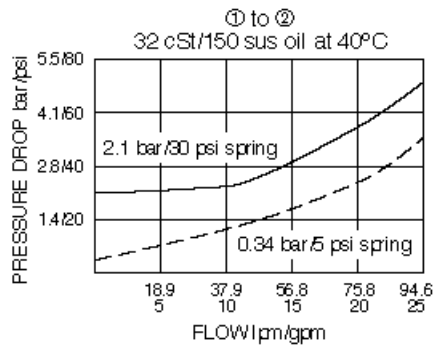
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	20/18/14 per ISO 4406

## Properties

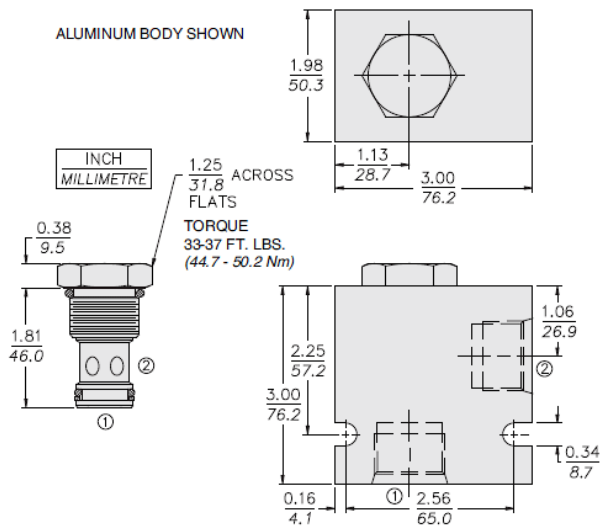
Unit weight	0.17 kg (0.38 lb)
Internal wetted surface area	126 cm <sup>2</sup> (19.6 in <sup>2</sup> )



## Performance



## Dimensions



## Installation Specifications

Cavity	VC12-2
Cartridge installation torque	44.7 to 50.2 N-m (33 to 37 ft-lb)
Maximum allowable torque	101.7 N-m (75 ft-lb)
Orientation restriction	None

## Accessories

Seal kit	SK12-2X-T	- Note: X = seal option
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## Order Code

CV12-20 -

<p><b>Porting</b></p> <p>Cartridge Only 0</p> <p>SAE 10 10T</p> <p>SAE 12 12T</p> <p>SAE 16 16T</p>	<p><b>Bias Spring*</b></p> <p>05 0.34 bar (5 psi)</p> <p>25 1.7 bar (25 psi)</p> <p>30 2.1 bar (30 psi)</p> <p>40 2.8 bar (40 psi)</p> <p>50 3.4 bar (50 psi)</p> <p>60 4.1 bar (60 psi)</p> <p>80 5.5 bar (80 psi)</p>
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<b>Seals</b>	
N	Buna N (Std.)
V	Fluorocarbon
HV	Fluorocarbon
P	Polyurethane

### Model Options

#### CV12-20-H-J-R

##### H Line Body

CODE	DESCRIPTION
0	No Body
10T	Aluminum SAE 10
12T	Aluminum SAE 12
16T	Aluminum SAE 16
12TD	Ductile Iron SAE 12
16TD	Ductile Iron SAE 16
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
25	25 psi Bias Spring
30	30 psi Bias Spring
40	40 psi Bias Spring
50	50 psi Bias Spring
60	60 psi Bias Spring
80	80 psi Bias Spring