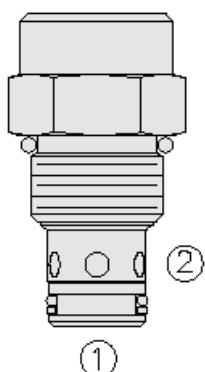
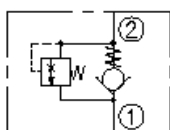


Overview



Symbol



Description

CV10-28 is a screw-in, cartridge-style hydraulic check valve for use as a blocking or load-holding device. The cartridge incorporates a low flow thermal relief valve intended to prevent cylinder damage resulting from temperature-induced pressure intensification.

NOTE: The thermal relief feature is not intended for use in dynamic pressure limiting applications.

Operation

The CV10-28 allows flow from port 1 to port 2, while blocking oil flow in the opposite direction. If the pressure at port 2 exceeds the thermal relief setting, a small amount of oil will be allowed to pass from port 2 to port 1, preventing cylinder damage from pressure intensification.

Features

- Hardened seat for long life and low leakage.
- Industry-common cavity.

Ratings

Pressure Ratings

Pressure rating	241 bar (3500 psi)
Proof pressure	390 bar (5700 psi)

Flow Ratings

Flow rating	45 lpm (12 gpm)	- Note: At 241 bar (3500 psi)
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
Storage temperature	-54 to 107 °C (-65 to 225 °F)	- Note: With polyurethane seals
	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 70 °C (-40 to 160 °F)	

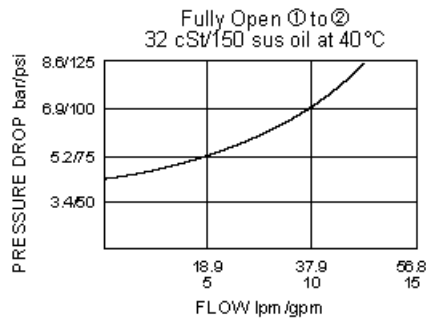
Operating Parameters

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

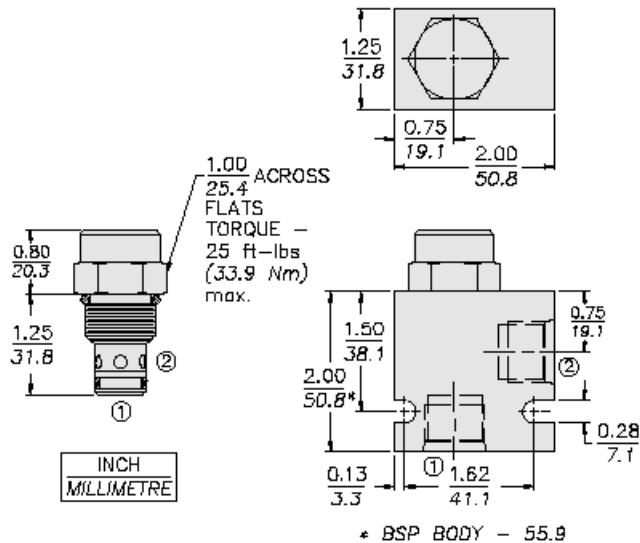
Properties

Unit weight	0.13 kg (0.28 lb)
Internal wetted surface area	287 cm ² (17.5 in ²)

Performance



Dimensions



Installation Specifications

Cavity	VC10-2
Cartridge installation torque	32.6 to 35.4 N-m (24 to 26 ft-lb)
Orientation restriction	None

Accessories

Seal kit	SK10-2X-T	- Note: X = seal option
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Order Code

CV10-28 -	-	-	-	/	-
Porting					Thermal Relief Setting
Cartridge Only 0					05 34.5 – 48.3 bar (500 – 700 psi)
SAE 6 6T					10 69.0 – 93.1 bar (1000 – 1350 psi)
SAE 8 8T					20 137.9 – 172.4 bar (2000 – 2500 psi)
1/4 in. BSP* 2B					25 172.4 – 217.2 bar (2500 – 3150 psi)
3/8 in. BSP* 3B					30 206.9 – 262.1 bar (3000 – 3800 psi)
1/2 in. BSP* 4B					40 275.9 – 344.8 bar (4000 – 5000 psi)
*BSP Body U.K. Mfr. Only					45 310.3 – 386.2 bar (4500 – 5600 psi)
Seals					Check Bias Spring Setting
Buna N (Std.) N					65 4.5 bar (65 psi) Std.**
Fluorocarbon V					

**Non-standard check bias spring settings and thermal relief settings available for OEM applications. Consult factory.

Model Options

CV10-28-H-J-R/S

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)

J Seal

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

R Spring

CODE	DESCRIPTION
65	65 psi Bias Spring

S Thermal Relief Setting

CODE	DESCRIPTION
5	500 psi Thermal Relief
10	1000 psi Thermal Relief
20	2000 psi Thermal Relief
25	2500 psi Thermal Relief
30	3000 psi Thermal Relief
40	4000 psi Thermal Relief
45	4500 psi Thermal Relief