



Counterbalance Valves Technical Information

Dual Counterbalance - Hydraulic Vent DCB10-HV

OPERATION

DCB10-HV: Dual counterbalance HIC, 10-size, hydraulic vent. This is an internally piloted, low leakage assembly. The DCB10-HV uses 2 CB10-HV 10-size cartridges and allows free flow from the V port to the C ports and blocks flow in the reverse direction until the relief setting is reached, or until adequate pilot pressure has been applied to the opposite V port.



APPLICATIONS

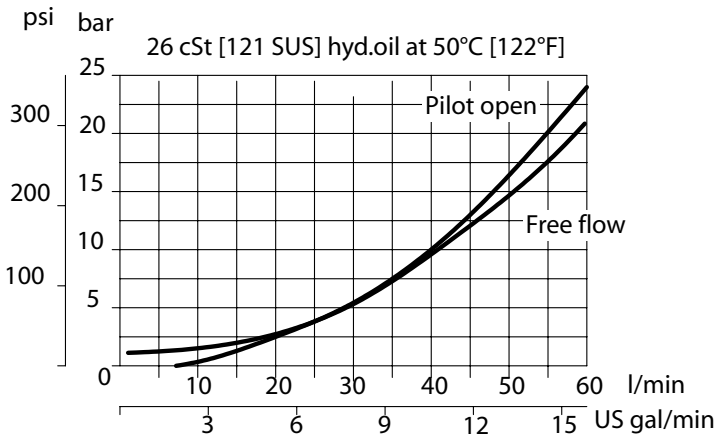
Dual counterbalance HIC's are used for controlling loads in bidirectional motion such as wheel motor applications or for cylinders going over center. They are also suitable for use on the boom and dipper cylinder on an excavator.

SPECIFICATIONS

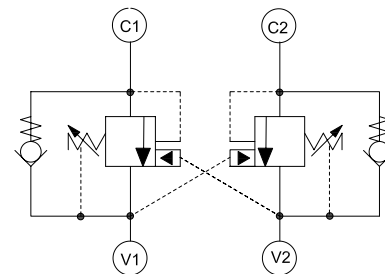
Rated pressure	350 bar [5075 psi]*
Rated flow at 22 bar (319 psi)	60 l/min [16 US gal/min]
Leakage	10 drops/min @ at 70% of crack pressure
Weight	0.90 kg [1.98 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cavity	CIB

* 350 bar with steel housing
210 bar with aluminum housing

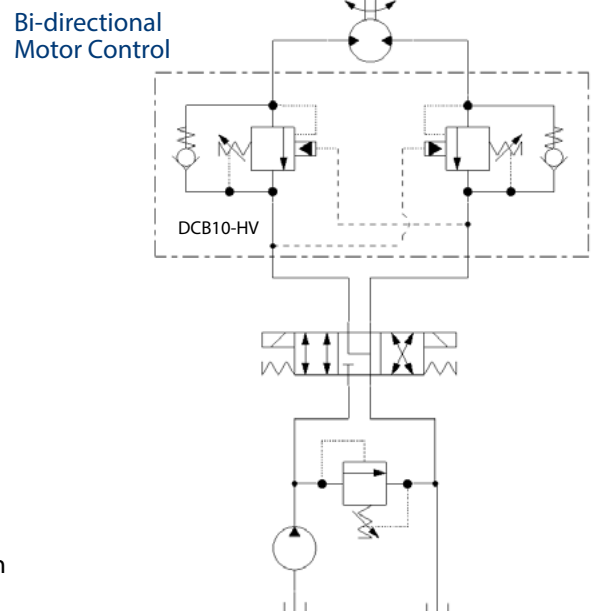
PERFORMANCE



SCHEMATIC



EXAMPLE CIRCUIT



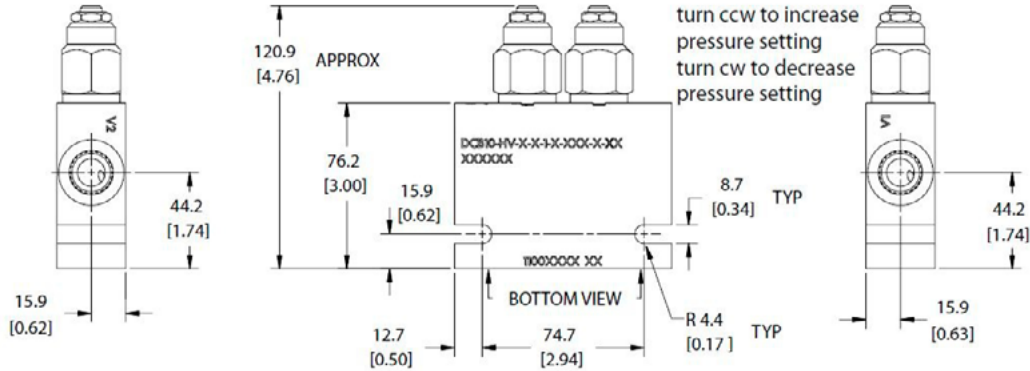


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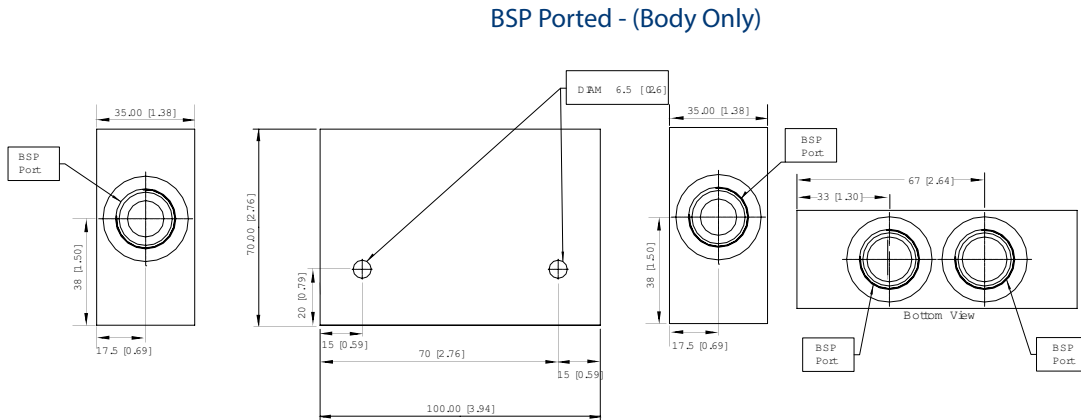
DIMENSIONS

mm [in]



SAE - Ported

mm [in]



BSP Ported - (Body Only)

ORDERING INFORMATION

DCB10 - HV - 1 - A - 1 - E - XXX - B - 00

DCB10- HV:
Dual counterbalance valve,
10-size, hydraulic vent

Code	Pilot Ratio
A	3 to 1
B	4.5 to 1
C	10 to 1

1: Check crack pressure in bar
1 bar [14.5 psi]

Pressure Range

Code	Pilot Ratio A (3:1) bar (psi)	Pilot Ratio B (4.5:1) bar (psi)	Pilot Ratio C (10:1) bar (psi)
1	35-110 [507-1595]	55-180 [797-2610]	90-350 [1305-5075]
2	60-150 [870 - 2175]	75-240 [1087-3480]	
3	80-230 [1160 - 3334]	90-350 [1305-5075]	

Code	Seal	Seal Kit
B	Buna-N	11002672
V	Viton	11002673

Pressure Setting [in bar]
XXX - No factory setting / no stamping

For customer specified settings, enter value in bar (Example 70 bar = 70; 125 bar = 125, etc.)

Adjustment type
E external adjustment
F tamper resistant

Housing & Ports	Housing P/N
SE3B AL, 3/8 BSP	922518510
SE4B AL, 1/2 BSP	922518610
SES4B Steel, 1/2 BSP	11034327
6S AL, #6 SAE	11002669
S6S Steel, #6 SAE	11009170
8S AL, #8 SAE	11001779
S8S Steel, #8 SAE	11009171