



Counterbalance Valves Technical Information

Dual Counterbalance - Atmospheric Vent DCB10-AV

OPERATION

DCB10-AV : Dual counterbalance HIC, 10-size, atmospheric vent.
This HIC is low leakage and internally piloted. The DCB10-AV uses 2 CB10-AV 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

Atmospheric vented valves are applied when it is not practical to connect a separate vent line to the tank. Use dual counterbalance HIC's 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.

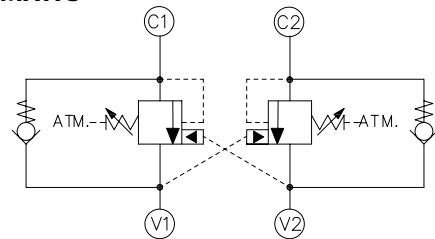


SPECIFICATIONS

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

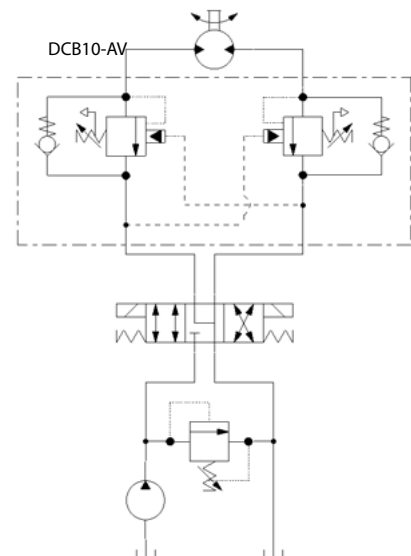
* 350 bar with steel housing
210 bar with aluminum housing

SCHEMATIC

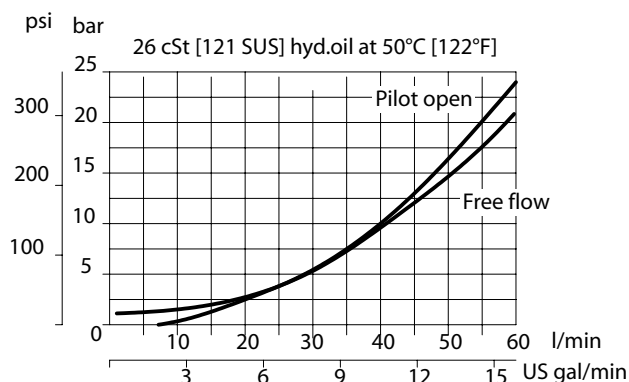


EXAMPLE CIRCUITS

Bi-directional Motor Control



PERFORMANCE





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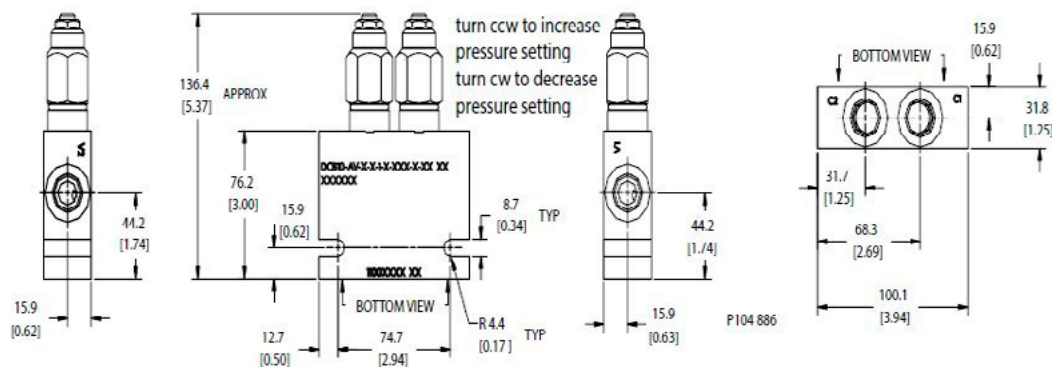
Dual Counterbalance - Atmospheric Vent

DCB10-AV

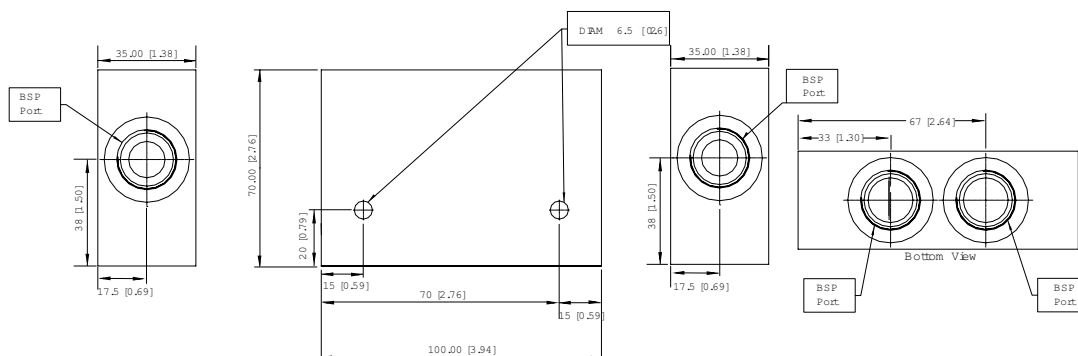
DIMENSIONS

mm [in]

Cross-sectional view SAE - Ported



BSP Ported - (Body Only)



ORDERING INFORMATION

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

DCB10-AV:
Dual counterbalance valve,
10-size, atmospheric vent

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

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]	

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

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