Counterbalance Valves Technical Information

Dual Counterbalance - Atmospheric Vent

VCB12-CN-DL

OPERATION

The VCB12-CN-DL is a dual counterbalance HIC, 12-size metric, nose to nose design with atmoshperic vent. This catalog HIC allows free flow from the V ports 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

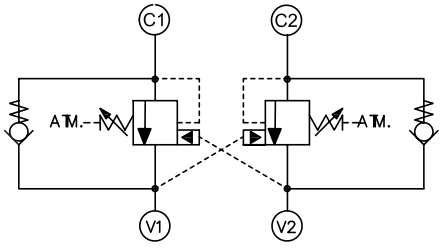
Atmospherically vented valves are applied when it is not practical to connect a separate vent line to the tank. Use dual counterbalance HIC's for controlling loads in bidirectional motion such as wheel motor applications or for cylinders going over center.

SPECIFICATIONS

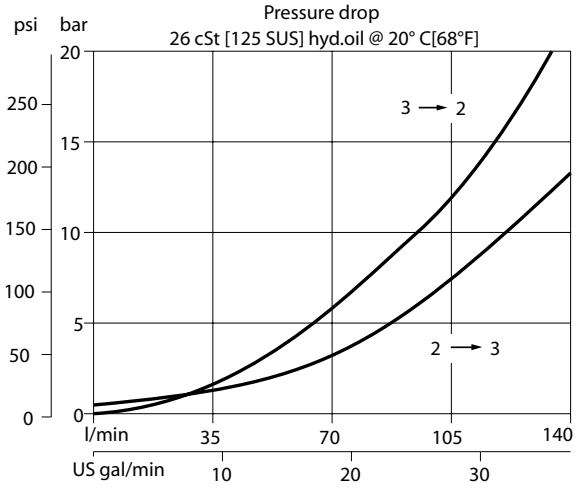
Rated pressure	350 bar [5075 psi]*
Rated flow at 22 bar (319 psi)	140 l/min [37 US gal/min]
Weight	2.92 kg [6.45 lb]
Pilot ratio	4.7:1, 5.9:1, 6.9:1
Cavity	CIB

* 350 bar with steel housing
210 bar with aluminum housing

SCHEMATIC



PERFORMANCE



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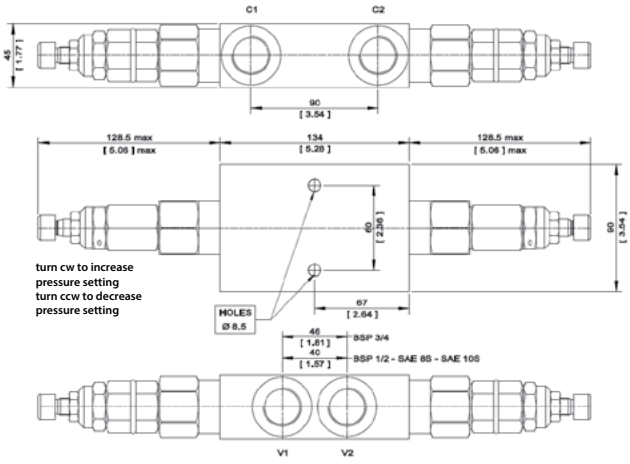
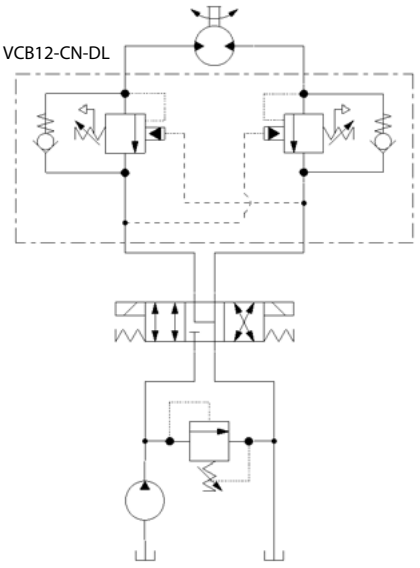
DIMENSIONS

mm [in]

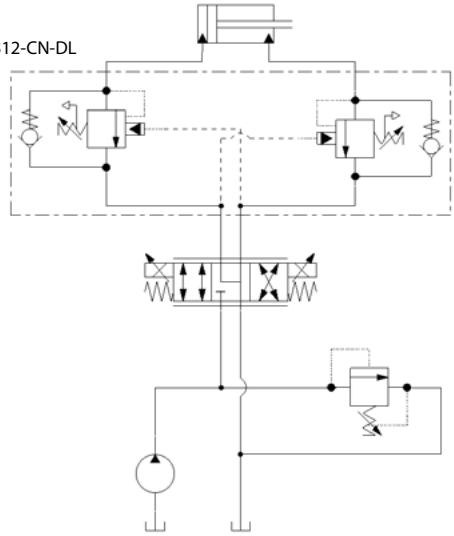


EXAMPLE CIRCUITS

Bi-directional Motion Control



Counterbalance - Double Actuator



ORDERING INFORMATION

VCB12 - CN - 2 - A - 00 - B - XXX

VCB12-CN:
Counterbalance Valve, Pilot Port 1, 12 size (metric), internal adjustment, atmospheric vent

Code	Pilot Ratio
A	6.9:1
B	4.7:1
C	5.9:1

Code	Seal Material
B	Buna-N
V	Viton

Crack 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.)

Pressure Range

Code	Pilot Ratio A,C bar [psi]	Pilot Ratio B bar [psi]
1	25-140 [363-2031]	25-120 [363-1740]
2	70 – 250 [1015-3625]	60-200 [870-2900]
3	105 – 350 [1523-5075]	90-280 [1305-4060]

Housing & Ports	Housing Nomenclature
00: Cartridge Only	No Body
SE4B: AL, 1/2 BSP	NCS12-3-SE4B
SE6B: AL, 3/4 BSP	NCS12-3-SE6B
SES6B: Steel, 3/4 BSP	NCS12-3-SES6B
SE8S: AL, #8 SAE	NCS12-3-SE8S
SE12S: AL, #12 SAE	NCS12-3-SE12S