

Motion Control Valves

1CEB120

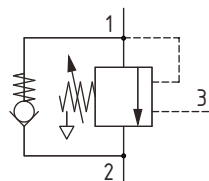
Overcenter Valve, Fully Balanced, Differential Area, Atmospheric Vent, Port 3 Pilot

350 bar [5000 psi] • 120 l/min [32 US gpm]

DESCRIPTION AND OPERATION

This is a differential area overcenter valve, which is a pilot assisted relief valve with a free flow check. With the relief valve set at around 1.3 times the maximum load induced pressure, the valve will prevent flow from taking place between ports 1 and 2. When pilot pressure is applied to port 3, the valve will meter the flow from port 1 to 2 compensating for any change in pilot pressure due to over-running or unstable loads. Free flow from port 2 to port 1 can take place freely through the check portion of the valve. These valves are ideal in most applications bringing stability, load holding, and hose failure protection when the valve is mounted onto or into the actuator. The spring chamber is connected to atmosphere so any back pressure will have no effect on the opening of the valve. At some point there will be leakage past the seals to atmosphere so the 4 ported valve should be considered as the best option. This is also available in a dual housing for bi-directional control.

SCHEMATIC

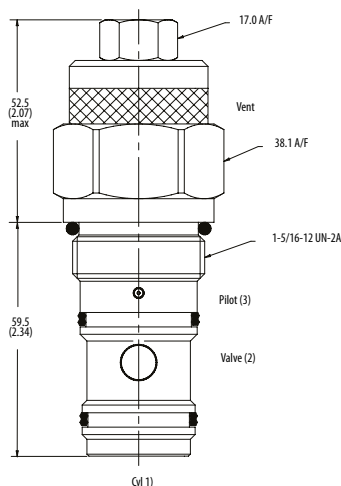


PERFORMANCE DATA

Rated pressure	350 bar [5000 psi]
Rated flow	120 l/min [32 US gpm]
Max total relief pressure	350 bar [5000 psi]
Max recommended load pressure at max setting	270 bar [3900 psi]
Pilot Ratio	3:1, 8:1
Leakage	0.3 ml/min nominal [5 drops/min]
Weight	0.59 kg [1.30 lb]
Cavity	A877

DIMENSIONS

mm [in]

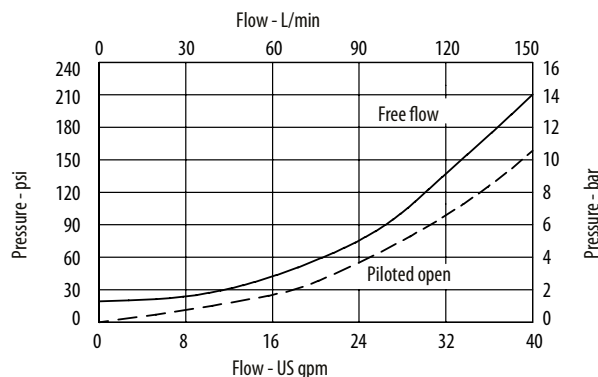


Turn CW to increase pressure setting and CCW to decrease pressure setting
Torque lock nut to 20-25 Nm [15-18 ft lbs]

Installation Torque
100 Nm [74 ft. lbs]

PERFORMANCE CURVES

Pressure Drop



Motion Control Valves

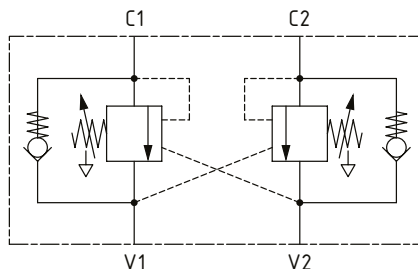
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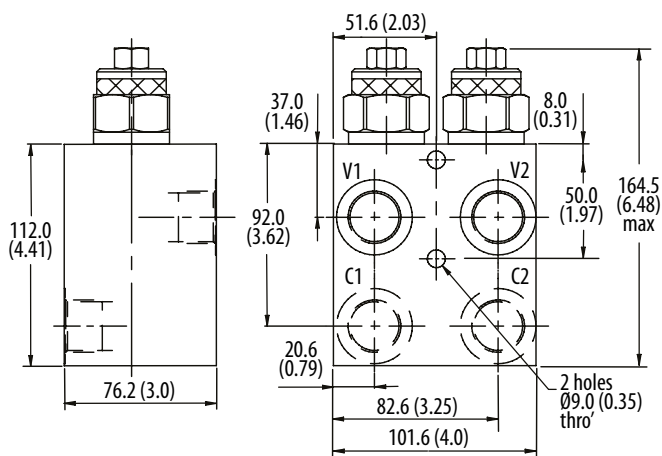
■ SCHEMATIC

1CEEB150 (dual)



■ DIMENSIONS

mm [in]



■ MODEL CODE

1CEB150 - P - 6W - 35 - S - 3 - 377 - 210

Basic Code

1CEB120 - No housing
1CEB150 - Cartridge and housing
1CEEB150 - Cartridges and dual housing

Adjustment Option

P - External

Housing

Code	Ports	Aluminum single	Steel single	Aluminum dual	Steel dual
Omit	No Housing				
6W	3/4" BSP Valve & Cyl Port. 1/4" BSP Pilot Port	B6898	B5544	C2543	C1200
12T	3/4" SAE Valve & Cyl Port. 1/4" SAE Pilot Port	B8200		C10629	C16434
16T	1" SAE Valve & Cyl Port. 1/4" SAE Pilot Port	B10708	B11814		

* Aluminum bodies are to be used for pressures less than 210 bar [3000 psi].

* Additional housings available

Pressure Range

Code	Bar	Psi
35	70-350	[1015-5000]
Standard Setting	210	[3000]

Std setting made at 4.5 l/min

Pressure Setting

Code Pressure setting in bar (10 bar increments within specified Pressure Range)
XXX-Standard setting (see Pressure Range for value). Example:

Code	Bar	Psi
210	210	[3000]

Housing Material

Omit - Aluminum/No housing
377 - Steel

Pilot Ratio

3 - 3:1
8 - 8:1

Seal Option

Code	Seal kit
S-Buna-N	SK417
SV-Viton	SK417V
P-Polyurethane/Buna-N	SK417-P