

# Motion Control Valves

## VCB 06-EN

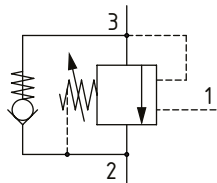
Overcenter Valve, Standard, Differential Area, Internal Drain, Port 1 Pilot

350 bar [5000 psi] • 60 l/min [16 US gpm]

### DESCRIPTION AND OPERATION

This is a differential area overcenter valve, which is a pilot assisted relief 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 3 and 2. When pilot pressure is applied to port 1, the valve will meter the flow from port 3 to 2 compensating for any change in pilot pressure due to over-running or unstable loads. Free flow takes place from port 2 to port 3 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 the valve port 2, so any back pressure will increase the pilot pressure required to keep the valve open and the pressure at which the valve will open as a relief valve.

### SCHEMATIC

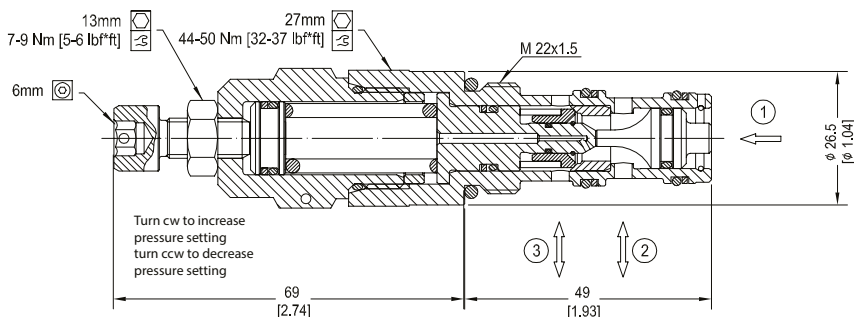


### PERFORMANCE DATA

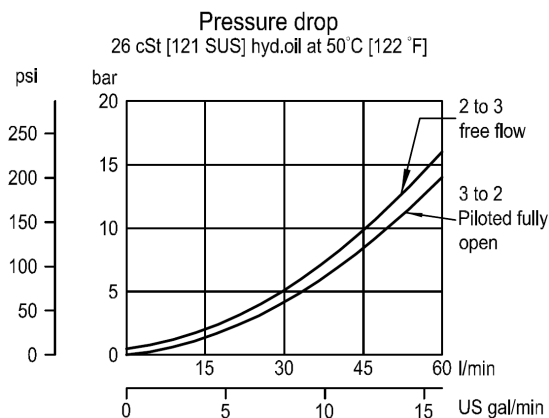
Rated pressure	350 bar [5000 psi]
Rated flow	60 l/min [16 US gpm]
Max total relief pressure	350 bar [5000 psi]
Max recommended load pressure at maximum setting	270 bar [3900 psi]
Pilot ratio	4:1, 7:1
Leakage	10 drops/min @ at 70% of crack pressure
Weight	0.21 kg [0.47 lb]
Cavity	NCS06/3

### DIMENSIONS

mm [in]



### PERFORMANCE CURVES



# Motion Control Valves

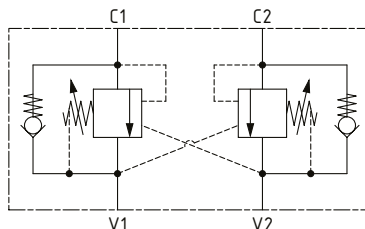
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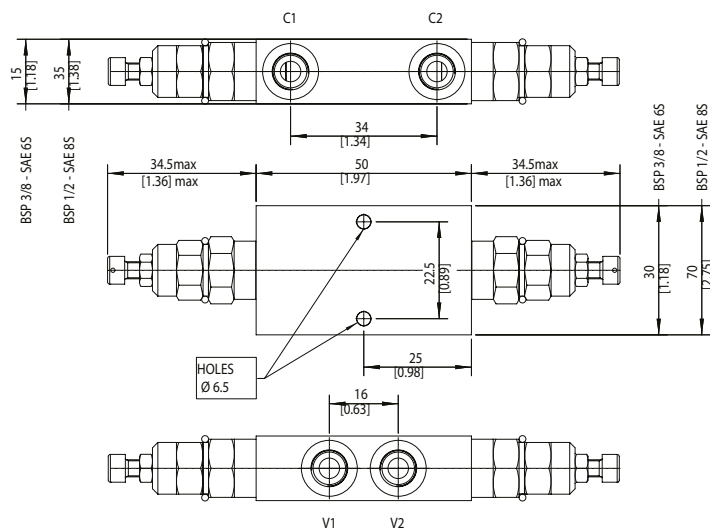
### SCHEMATIC

VCB 06-EN-DL (dual)



### DIMENSIONS

mm [in]



### MODEL CODE

**VCB06 - EN - 2 - A - 00 - B - 70**

#### Pressure Range

Code	Bar	Psi
1	25-140	[360-2030]
2	70-210	[1015-3000]
3	105-350	[1520-5000]

#### Pilot Ratio

A - 7.1:1  
B - 4.1:1

#### Pressure Setting

Code Pressure setting in bar (10 bar increments within specified Pressure Range)  
XXX-No factory setting  
Example:

Code	Bar	Psi
70	70	[1015]

#### Housing

Code	Ports & Material	Housing Number	Dual Housing Code	Dual Housing Number
00	No housing			
SE3B	AL, 3/8 BSP	NCS06-3-SE3B	DL3B	NCS06/3-DL3/8
SE4B	AL, 1/2 BSP	NCS06-3-SE4B	DL4B	NCS06/3-DL1/2
SE6S	AL, #6 SAE	NCS06-3-SE6S	DL6S	NCS06/3-DL6S
SE6S5	ST, #6SAE	NCS06-3-SE6S5		
SE8S	AL, #6 SAE	NCS06-3-SE8S	DL8S	NCS06/3-DL8S

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

\* Additional housings available

#### Seal Option

Code	Seal kit
B-Buna-N	230000070
V-Viton	230000110