

Motion Control Valves

1CEBD90

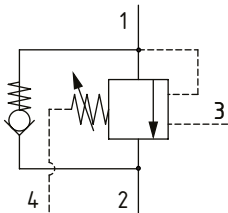
Overcenter Valve, Fully Balanced, Direct Acting, External Drain, Port 3 Pilot

350 bar [5000 psi] • 90 l/min [24 US gpm]

DESCRIPTION AND OPERATION

This is a direct acting 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 a drain port 4, so any back pressure in port 2 will have no effect on the pilot pressure required to open the valve.

SCHEMATIC



PERFORMANCE DATA

Rated pressure	350 bar [5000 psi]
Rated flow	90 l/min [24 US gpm]
Max total relief pressure	350 bar [5000 psi]
Max recommended load pressure at max setting	270 bar [3900 psi]
Pilot Ratio	4:1
Leakage	0.3 ml/min [5 drops/min]
Weight	0.29 kg [0.63 lb]
Cavity	A12196

MODEL CODE

1CEBD90 - F - 4W - 20 - P - 4 - 377 - 210

Basic Code

1CEBD90 - No housing
1CEBD95 - Cartridge and housing

Adjustment Option

F - External

Housing

Code	Ports	Aluminum Steel	
Omit	No housing		
4W	1/2" BSP Valve & Cyl. Port, 1/4" BSP Pilot and Vent Port	B16357	B23615
8T	#8 SAE Valve & Cyl. Port, #4 SAE Pilot and Vent Port	12007706	12007708

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

Pressure Range

Code	Bar	Psi
20	70-225	[1015-3260]
Standard Setting	100	[1450]
35	200-350	[2900-5000]
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

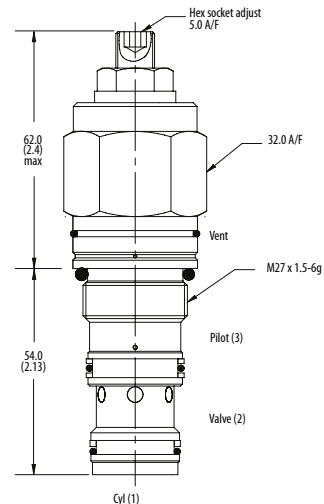
4 - 4:1

Seal Option

Code	Seal kit
S - Buna-N	SK634
SV - Viton	SK634V
P - Polyurethane/Buna-N	SK634P

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
60 Nm [44 ft. lbs]

PERFORMANCE CURVES

Pressure Drop

