

# Motion Control Valves

## 1CPBD90

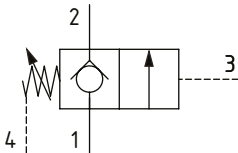
Overcenter Valve, Zero Differential, Poppet Type, External Drain, Port 3 Pilot

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

### DESCRIPTION AND OPERATION

This is a zero differential overcenter valve, which is a pilot assisted, metered poppet valve with an integral free flow check. The check section allows free flow from port 2 to 1 into the actuator then holds and locks the load in position. By applying pilot pressure on port 3, the valve will open allowing the load to be lowered with oil passing from port 1 to 2. With port 4 connected to tank back pressure will not affect the pilot pressure required to open the valve. These valves are usually used in conjunction with a remote pilot source to maintain control in the event of hose failure. They should always be mounted onto or into the actuator and they do not have a relief function.

### SCHEMATIC



### PERFORMANCE DATA

Rated pressure	350 bar [5000 psi]
Rated flow	90 l/min [24 US gpm]
Leakage	0.3 ml/min nominal [5 drops/min]
Weight	0.29 kg [0.63 lb]
Cavity	A12196

### MODEL CODE

**1CPBD90 - F - 4W - 2 - P - 377 - 10**

**Basic Code**

1CPBD90 - No housing  
1CPBD95 - 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].  
\* Additional housings available

**Pilot Pressure Range**

Code	Bar	Psi
2	5-20	[73-290]
Standard Setting	10	[145]

Std setting made at 4.5 l/min

**Pilot 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
10	10	[145]

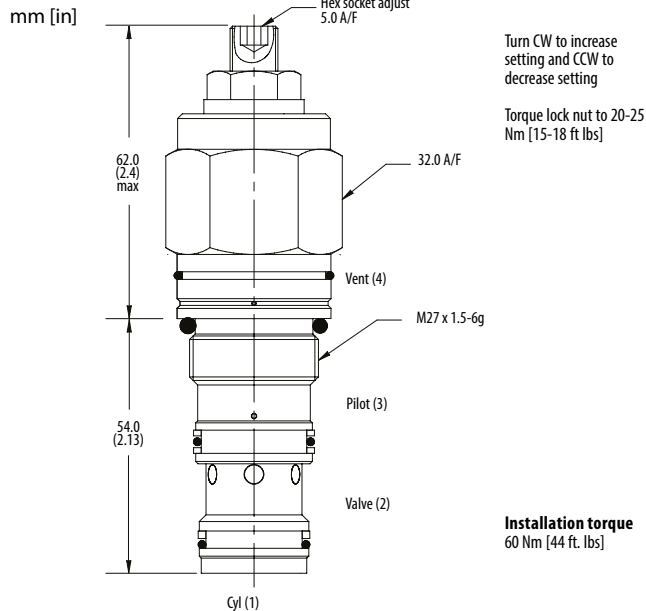
**Housing Material**

Omit - Aluminum/No Housing  
377 - Steel

**Seal Option**

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

### DIMENSIONS



### PERFORMANCE CURVES

