

Motion Control Valves

1CPBD300

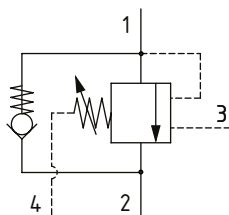
Overcenter Valve, Zero Differential, Poppet Type, External Drain, Port 3 Pilot

400 bar [5800 psi] • 300 l/min [80 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	400 bar [5800 psi]
Rated flow	300 l/min [80 US gpm]
Leakage	4 ml/min nominal [60 drops/min]
Weight	0.91 kg [2.00 lb]
Cavity	A13098

MODEL CODE

1CPBD300 - F - 10W - 2 - P - 377 - 10

Basic Code

1CPBD300 - No housing
1CPBD350 - Cartridge and housing

Adjustment Option

F - External

Housing

Code	Ports	Aluminum Steel	
Omit	No housing		
10W	1 1/4" BSP Valve & Cyl. Port, 1/4" BSP Pilot and Vent Port	12007720	12007722
20T	#20 SAE Valve & Cyl. Port, #4 SAE Pilot and Vent Port	12007719	12007721

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

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]

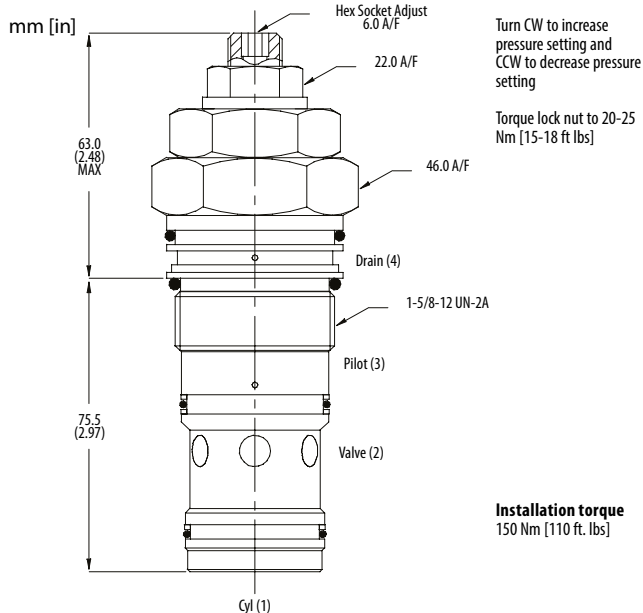
Housing Material

Omit - Aluminum/No Housing
377 - Steel

Seal Option

Code	Seal kit
S-Buna-N	SK971
SV-Viton	SK971V
P-Polyurethane/Buna-N	SK971P

DIMENSIONS



PERFORMANCE CURVES

Pressure Drop

