

Motion Control Valves

1CPBD120

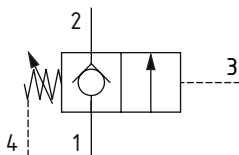
Overcenter Valve, Zero Differential, Poppet Type, External Drain, Port 3 Pilot

400 bar [5800 psi] • 180 l/min [47 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	180 l/min [47 US gpm]
Leakage	0.3 ml/min max [5 drops/min]
Weight	0.59 kg [1.30 lb]
Cavity	A6726

MODEL CODE

1CPBD120 - F - 6W - 2 - P - 377 - 10

Basic Code

1CPBD120 - No housing
1CPBD150 - Cartridge and housing

Adjustment Option

F - External

Housing

Code	Ports	Aluminum	Steel
Omit	No housing		
6W	3/4" BSP Valve & Cyl. Port, 1/4" BSP Pilot and Vent Port	12007710	12007715
12T	#12 SAE Valve & Cyl. Port, #4 SAE Pilot and Vent Port	12007709	12007712

* 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 (2 bar increments within specified Pressure Range)

XXX - Standard setting (see Pressure Range for value). Example:

Code	Bar	Psi
10	10	[145]

Housing Material

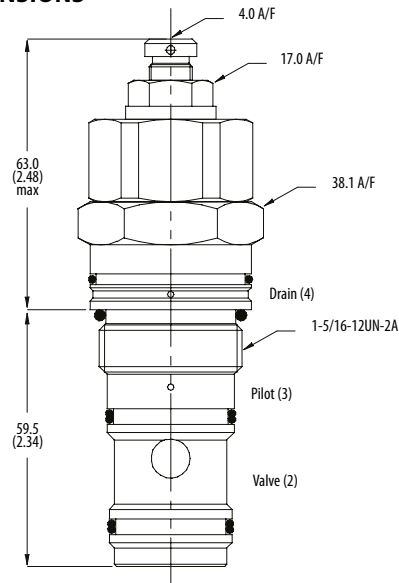
Omit - Aluminum/No Housing
377 - Steel

Seal Option

Code	Seal kit
S-Buna-N	SK830
SV-Viton	SK830V
P-Polyurethane/Buna-N	SK830P

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

