Motion Control Valves

1CEBD300

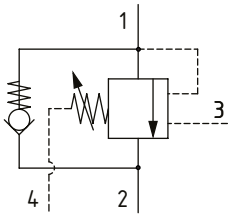
Overcenter Valve, Fully Balanced, Differential Area, External Drain, Port 3 Pilot

350 bar [5000 psi] • 300 l/min [80 US gpm]

DESCRIPTION AND OPERATION

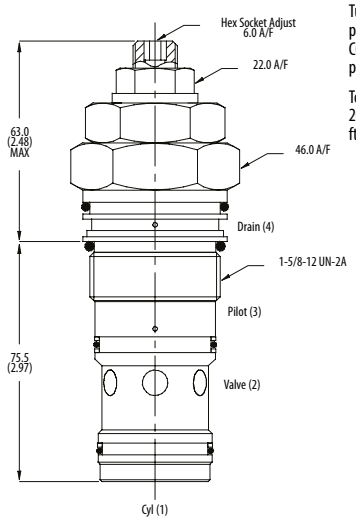
This is a differential area overcenter valve, which is a pilot assisted relief valve with a free flow check. With the relief valve set at around 1.3 times the maximum load induced pressure, the valve will prevent flow from taking place between ports 1 and 2. When pilot pressure is applied to port 3, 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



DIMENSIONS

mm [in]



Turn CW to increase pressure setting and CCW to decrease pressure setting

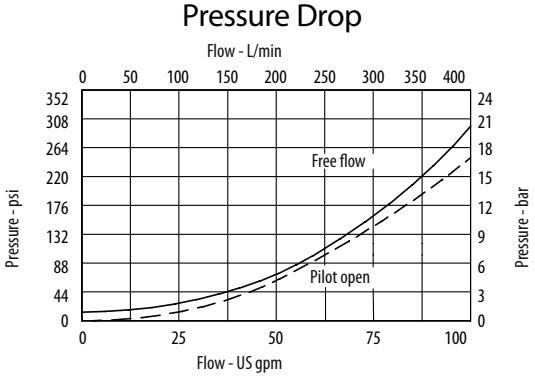
Torque lock nut to 20-25 Nm [15-18 ft lbs]"

Installation Torque
150 Nm [110 ft. lbs]

PERFORMANCE DATA

Rated pressure	**350 bar [5000 psi]**
Rated flow	**300 l/min [80 US gpm]**
Max total relief pressure	350 bar [5000 psi]
Max recommended load pressure at max setting	270 bar [3900 psi]
Pilot Ratio	3:1, 8:1
Leakage	4 ml/min [60 drops/min]
Weight	0.59 kg [1.30 lb]
Cavity	A13098

PERFORMANCE CURVES



MODEL CODE

1CEBD300 - F - 10W - 35 - S - 3 - 377 - 210

Basic Code

1CEBD300 - No housing
1CEBD350 - 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].

Pressure Range

Code	Bar	Psi
35	70-350	[1015-5000]
Standard Setting	210	[3000]

Std setting made at 4.5 l/min

Seal Option

Code	Seal kit
S-Buna-N	SK686
SV-Viton	SK686V
P-Polyurethane/Buna-N	SK686P

Housing Material

Omit - Aluminum/No Housing
377 - Steel

Pilot Ratio

3 - 3:1
8 - 8:1

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]