

# Motion Control Valves

## 1CEH90

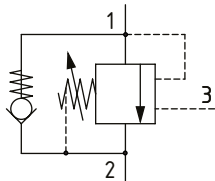
Overcenter Valve, Standard, Direct Acting, Internal Drain, Port 3 Pilot

430 bar [6200 psi] • 90 l/min [24 US gpm]

### DESCRIPTION AND OPERATION

This is a direct acting overcenter valve, which is a pilot assisted relief with a free flow check. With the relief valve set at approximately 1.3 times the maximum load induced pressure, the valve will prevent flow from port 1 to 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 takes place from port 2 to port 1 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 the valve port 2, so any back pressure will increase the pilot pressure required to keep the valve open and the pressure at which the valve will open as a relief valve. This is also available in a dual housing for bi-directional control.

### SCHEMATIC

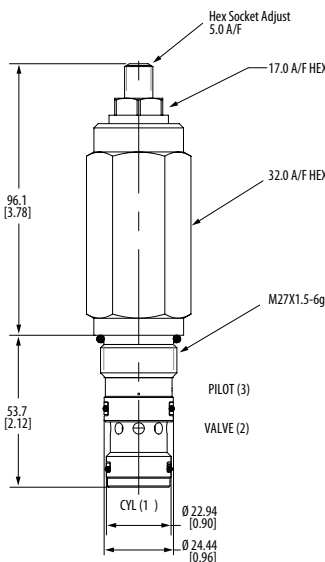


### PERFORMANCE DATA

<b>Rated pressure</b>	<b>430 bar [6200 psi]</b>
<b>Rated flow</b>	<b>90 l/min [24 US gpm]</b>
Max total relief pressure	430 bar [6200 psi]
Max recommended load pressure at max setting	350 bar [5000 psi]
Pilot Ratio	4:1
Leakage	5 drops/min @ 85% of crack pressure
Weight	0.6 kg [1.32 lb]
Cavity	A12336

### DIMENSIONS

mm [in]

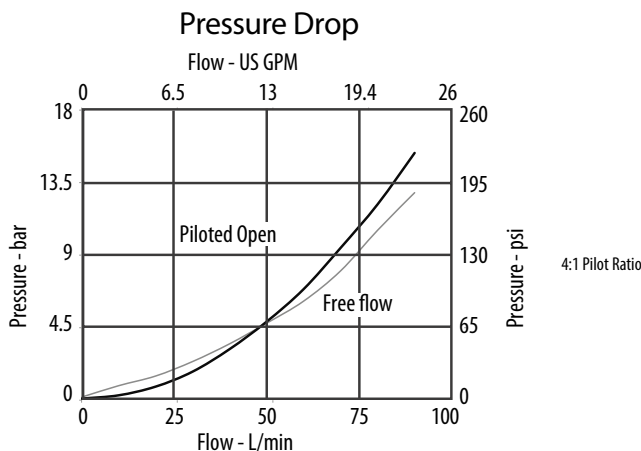


Turn CW to increase pressure setting and CCW to decrease pressure setting.

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

**Installation torque**  
100-110 Nm [73-81 ft. lbs]

### PERFORMANCE CURVES



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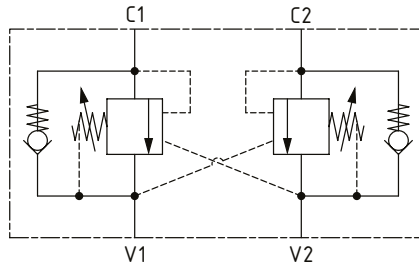
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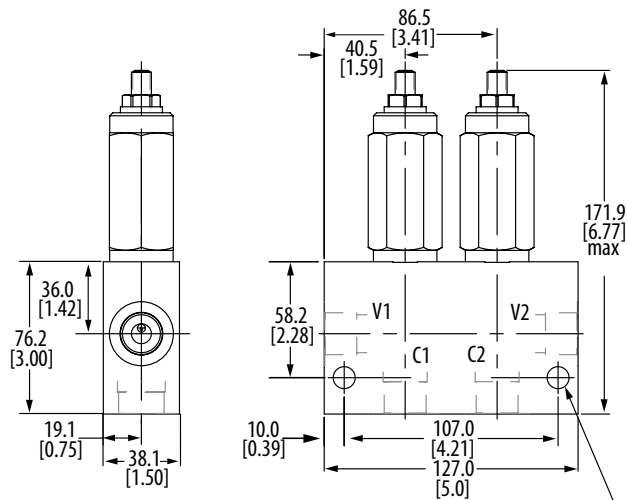
### ■ SCHEMATIC

1CEEH95 (dual)



### ■ DIMENSIONS

mm [in]



### ■ MODEL CODE

**1CEH95 - F - 4W - 43 - S - 4 - 377 - 350**

#### Basic Code

1CEH90 - No housing  
1CEH95 - Cartridge and housing  
1CEEH95 - Cartridges and dual housing

#### Adjustment Option

F - External

#### Housing

Code	Ports	Steel single	Steel dual
Omit	No housing		
4W	1/2" BSP Valve & Cyl Port 1/4" BSP Pilot Port	B13626	C13628
8T	1/2" SAE Valve & Cyl Port 1/4" SAE Pilot Port	B10922	C11561

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

#### 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
350	350	[5000]

#### Housing Material

Omit - No housing  
377 - Steel

#### Pilot Ratio

4 - 4:1

#### Seal Option

Code	Seal kit
S-Buna-N	9900927-000
SV-Viton	9900928-000

#### Pressure Range

Code	Bar	Psi
43	275-430	[3990-6200]
Standard Setting	350	[5000]

Std. setting made at 4.5 l/min