

Motion Control Valves

1CER90

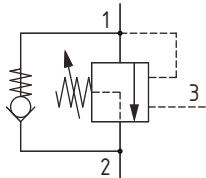
Overcenter Valve, Part Balanced, Direct Acting, Internal Drain, Port 3 Pilot

350 bar [5000 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 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 the valve port 2 so any back pressure will increase the pilot pressure required to keep the valve open. However, the balanced poppet design allows the relief valve to remain open provided the inlet pressure is higher than the setting. This is also available in a dual housing for bi-directional control.

SCHEMATIC

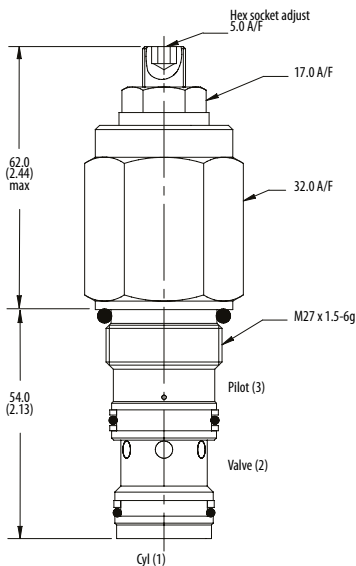


PERFORMANCE DATA

Rated pressure	350 bar [5000 psi]
Rated flow	90 l/min [24 US gpm]
Max total relief pressure	350 bar [5000 psi]
Max recommended load pressure at max setting	270 bar [3900 psi]
Pilot Ratio	4:1
Leakage	0.3 ml/min [5 drops/min]
Weight	0.29 kg [0.63 lb]
Cavity	A12336

DIMENSIONS

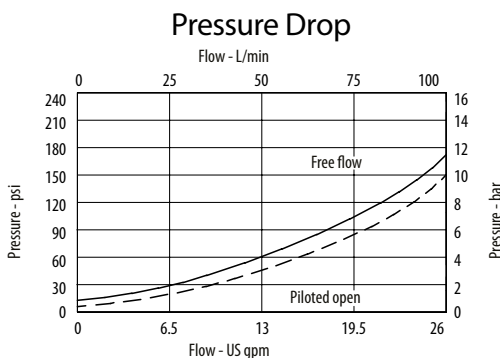
mm [in]



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
60 Nm [44 ft. lbs]

PERFORMANCE CURVES



Motion Control Valves

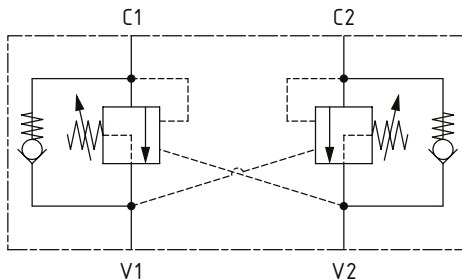
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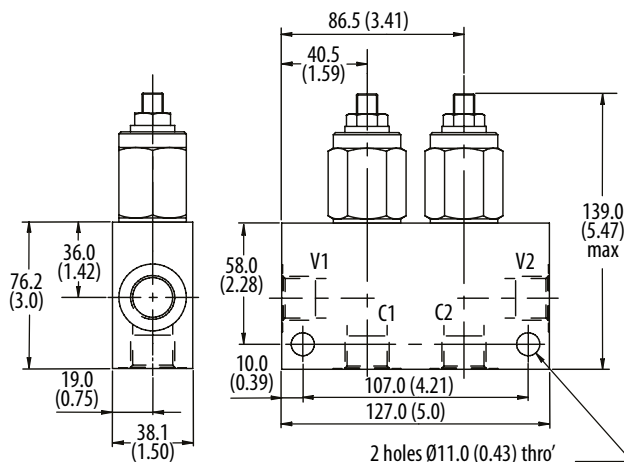
■ SCHEMATIC

1CEER95 (dual)



■ DIMENSIONS

mm [in]



■ MODEL CODE

1CER95 - F - 4W - 35 - S - 4 - 377 - 210

Basic Code

1CER90 - No housing
1CER95 - Cartridge and housing
1CEER95 - Cartridges and dual housing

Adjustment Option

F - External
N - Non-adjustable option, contact technical support

Housing

Code	Ports	Aluminum single	Steel single	Aluminum dual	Steel dual
Omit	No housing				
4W	1/2" BSP Valve & Cyl Port 1/4" BSP Pilot Port	B13625	B13626	C13627	C13628
8T	1/2" SAE Valve & Cyl Port 1/4" SAE Pilot Port	B10806	B10922	C10807	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
210	210	[3000]

Housing Material

Omit - Aluminum/No housing
377 - Steel

Pilot Ratio

4 - 4:1

Seal Option

Code	Seal kit
S-Buna-N	SK6333
SV-Viton	SK633V

Pressure Range

Code	Bar	Psi
20	70-225	[1015-3260]
Standard Setting	100	[1450]
35	200-350	[2900-5000]
Standard Setting	210	[3000]

Std setting made at 4.5 l/min