

Motion Control Valves

1CER30

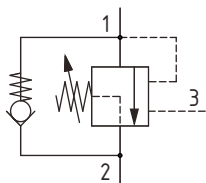
Overcenter Valve, Part Balanced, Direct Acting, Internal Drain, Port 3 Pilot

350 bar [5000 psi] • 30 l/min [8 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

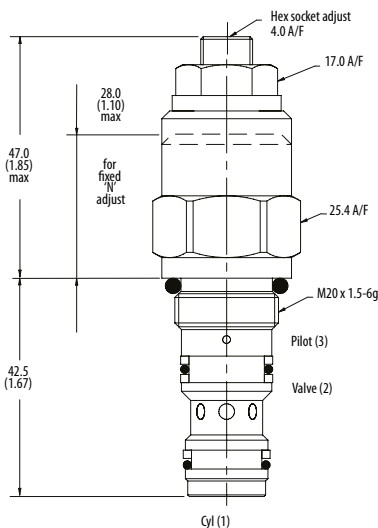


PERFORMANCE DATA

Rated pressure	350 bar [5000 psi]
Rated flow	30 l/min [8 US gpm]
Max total relief pressure	350 bar [5000 psi]
Max recommended load pressure at max setting	270 bar [3900 psi]
Pilot Ratio	2.5:1, 4:1
Leakage	0.3 ml/min nominal [5 drops/min]
Weight	0.15 kg [0.33 lb]
Cavity	A6610

DIMENSIONS

mm [in]



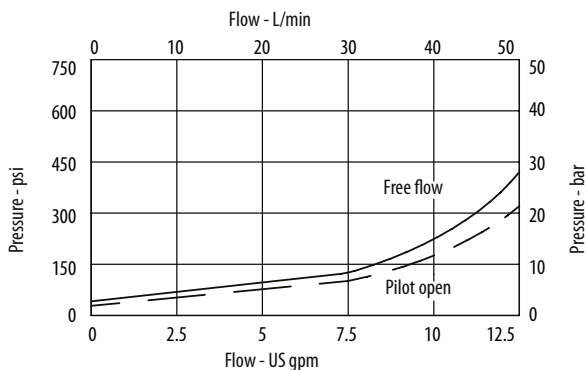
Turn CW to increase pressure setting and CCW to decrease pressure setting.

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

Installation torque 45 Nm [33 ft. lbs]

PERFORMANCE CURVES

Pressure Drop



Motion Control Valves

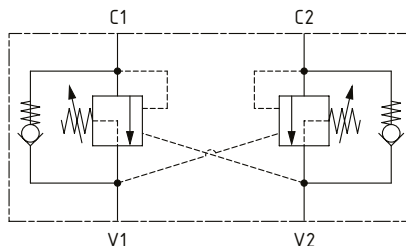
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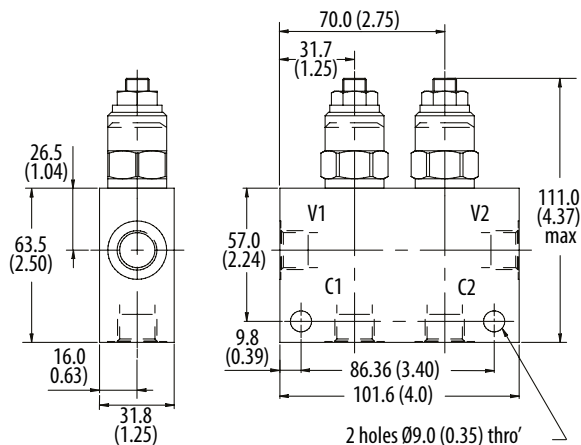
SCHEMATIC

1CEER34 (dual)



DIMENSIONS

mm [in]



MODEL CODE

1CER35 - F - 3W - 35 - S - 4 - 377 - 210

Basic Code

1CER30 - No housing
1CER35 - Cartridge and housing
1CEER34 - 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				
3W	3/8" BSP Valve & Cyl Port 1/4" BSP Pilot Port	B6743	B12823	B6836	B13803
6T	3/8" SAE Valve & Cyl Port 1/4" SAE Pilot Port	B10536		B10805	
8T	1/2" SAE Valve & Cyl Port 1/4" SAE Pilot Port	B7884	B11811	B30237	B11812

* 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

2 - 2.5:1
4 - 4:1

Seal Option

Code	Seal kit
Buna-N	SK395
SV-Viton	SK395V

Pressure Range

Code	Bar	Psi
35	100-350	[1450-5000]
Standard Setting	210	[3000]

Std setting made at 4.5 l/min