

Motion Control Valves

1CE140

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

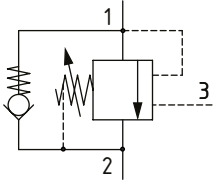
420 bar [6100 psi] • 140 l/min [37 US gpm]



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

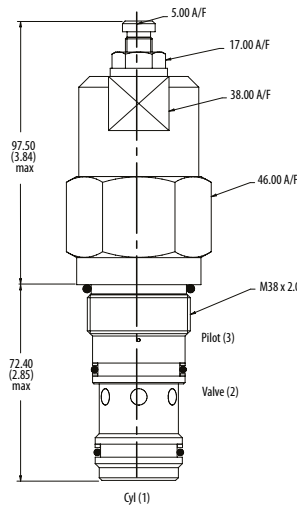


PERFORMANCE DATA

Rated pressure	420 bar [6100 psi]
Rated flow	140 l/min [37 US gpm]
Max total relief pressure	420 bar [6100 psi]
Max recommended load pressure at max setting	340 bar [4900psi]
Pilot Ratio	4:1.6:1
Leakage	0.3 ml/min nominal [5 drops/min]
Weight	1.2 kg [2.5 lb]
Cavity	A20081

DIMENSIONS

mm [in]



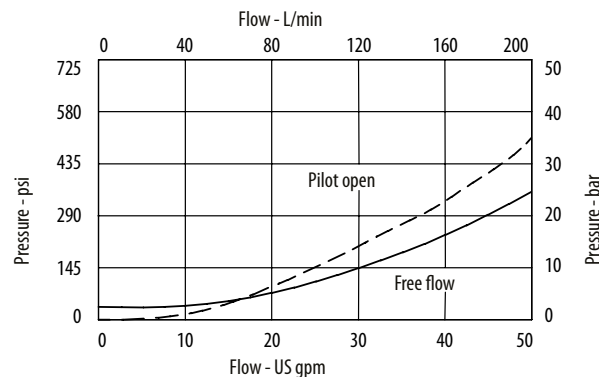
Turn CW to increase pressure setting and CCW to decrease pressure setting.

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

Installation Torque
150 Nm [110 ft. lbs]

PERFORMANCE CURVES

Pressure Drop



Motion Control Valves

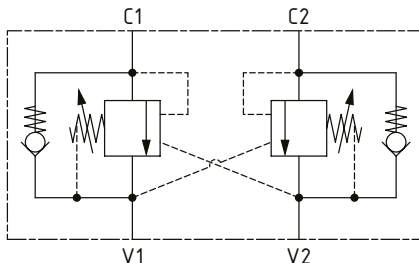
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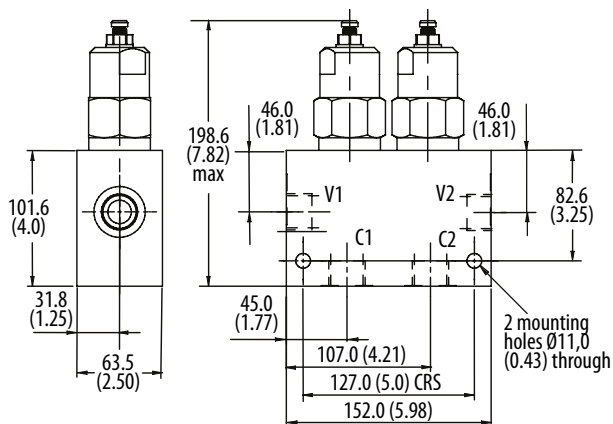
■ SCHEMATIC

1CEE145 (dual)



■ DIMENSIONS

mm [in]



■ MODEL CODE

1CE145 - F - 6W - 40 - S - 4 - 377 - 350

Basic Code

1CE140 - No housing
1CE145 - Cartridge and housing
1CEE145 - Cartridges and dual housing

Adjustment Option

F - External

Housing

Code	Ports	Aluminum single	Steel single	Aluminum dual	Steel dual
Omit	No housing				
6W	3/4" BSP Valve & Cyl Port. 1/4" BSP Pilot Port	B20105	B20106		
8W	1" BSP Va lve & Cyl Port. 1/4" BSP Pilot Port	B20107	B20108	C20285	C20287
16T	1" SAE Valve & Cyl Port. 1/4" SAE Pilot Port	B11946	B11947	C30105	C30106

* 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 - Aluminum/No housing
377 - Steel

Pilot Ratio

4 - 4:1
6 - 6:1

Seal Option

Code	Seal Kit
S-Buna-N	SK1108
SV-Viton	SK1108V

Pressure Range

Code	Bar	Psi
20	140-250	[2000-3600]
Standard Setting	190	[2750]
30	220-330	[3200-4800]
Standard Setting	270	[3900]
40	310-420	[4500-6100]
Standard Setting	370	[5400]

Std setting made at 4.5 l/min