

# Motion Control Valves

## 1SER140

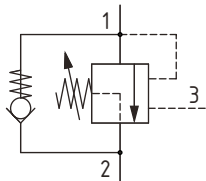
Overcenter Valve, Part Balanced, Direct Acting, Internal Drain, Port 3 Pilot

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

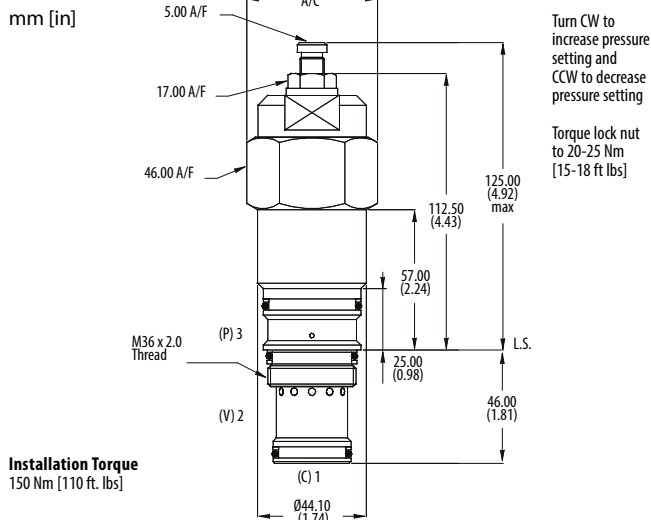
### DESCRIPTION AND OPERATION

This is a direct acting overcenter valve, which is a pilot assisted relief with a free flow check. With the relief valve set at 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.

### SCHEMATIC



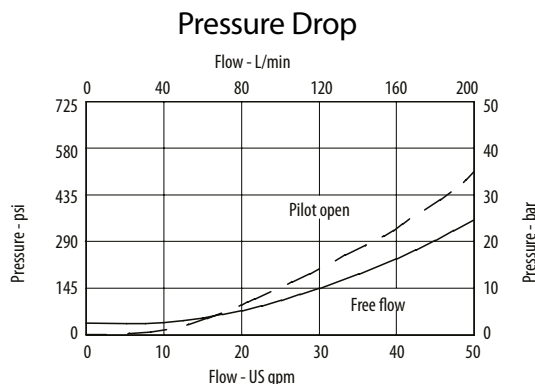
### DIMENSIONS



### 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 [4900 psi]
Pilot Ratio	4:1, 6:1
Leakage	0.3 ml/min nominal [5 drops/min]
Weight	1.2 kg [2.5 lb]
Cavity	A20094-T17A

### PERFORMANCE CURVES



### MODEL CODE

**1SER140 - F - 40 - S - 4 - 350**

#### Adjustment Option

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

#### Pressure Range

Code	Bar	Psi
20	140-250	[2030-3600]
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

#### 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]

#### Pilot Ratio

4 - 4:1  
6 - 6:1

#### Seal Option

Code	Seal kits
S-Buna-N	SK1116
SV-Viton	SK1116V