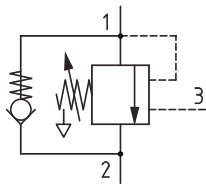# Motion Control Valves
1CEB30

406AA00010A, 1CEB30-F-35S5

Overcenter Valve, Fully Balanced, Direct Acting, Atmospheric Vent, 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 valve 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 atmosphere, so any back pressure will have no effect on the opening of the valve. Over time, there may be leakage past the seals to atmosphere. For valves with a separate drain port, reference the 1CEBD products. This is also available in a dual housing for bi-directional control.
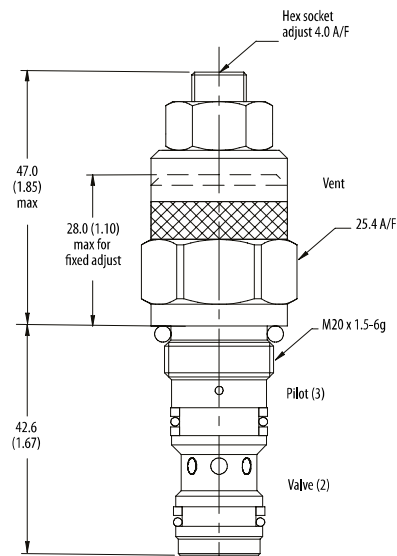
■ SCHEMATIC

■ PERFORMANCE DATA

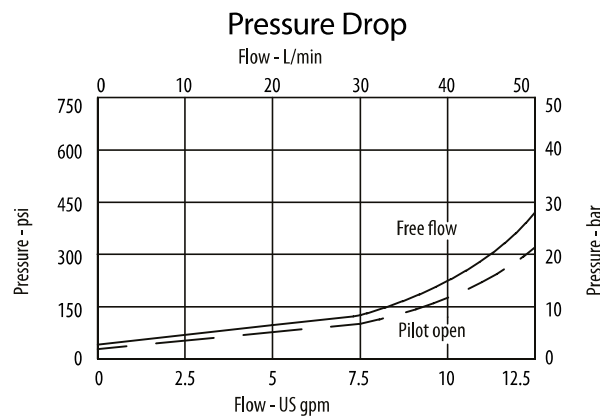| Rated pressure	350 bar [5000 psi]
Rated flow	30 l/min [8 US gpm]
Max total relief pressure	350 bar [5000 psi]
Max recommended load pressure at max setting	270 bar [3900 psi]
Pilot Ratio	5:1
Leakage	0.3 ml/min nominal [5 drops/min]
Weight	0.14 kg [0.30 lb]
Cavity	A6610

■ DIMENSIONS

mm [in]

Hex socket adjust 4.0 A/F

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

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

47.0 (1.85) max

28.0 (1.10) max for fixed adjust

Vent

25.4 A/F

M20 x 1.5-6g

42.6 (1.67)

Pilot (3)

Valve (2)

Installation Torque
45 Nm [33 ft. lbs]

■ PERFORMANCE CURVES

Pressure Drop

Flow - L/min

Free flow

Pilot open

Pressure - psi

Pressure - bar

Flow - US gpm

Motion Control Valves
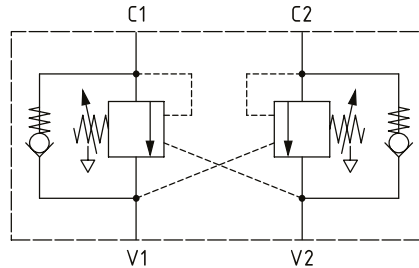# 1CEB30

Overcenter Valve, Fully Balanced, Direct Acting, Atmospheric Vent, Port 3 Pilot
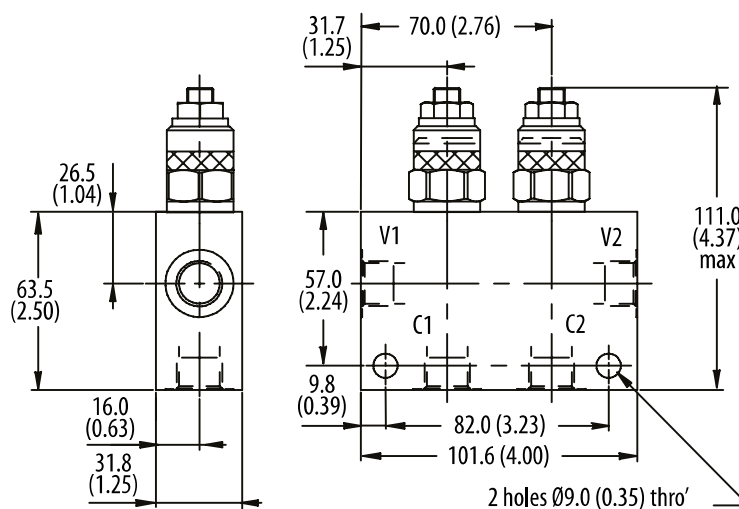
350 bar [5000 psi] • 30 l/min [8 US gpm]

Danfoss

■ SCHEMATIC

1CEEB34 (dual)

■ DIMENSIONS

mm [in]

31.7 (1.25) 70.0 (2.76) 26.5 (1.04) 63.5 (2.50) 16.0 (0.63) 31.8 (1.25)

111.0 (4.37) max 57.0 (2.24) 9.8 (0.39) 82.0 (3.23) 101.6 (4.00)

2 holes Ø9.0 (0.35) thro'

■ MODEL CODE

1CEB30 - F - 3W - 35 - S - 5 - 377 - 210

Basic Code
1CEB30 - No housing
1CEB35- Cartridge and housing
1CEEB34- 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
5 - 5:1

Seal Option

Code	Seal kit
S- 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