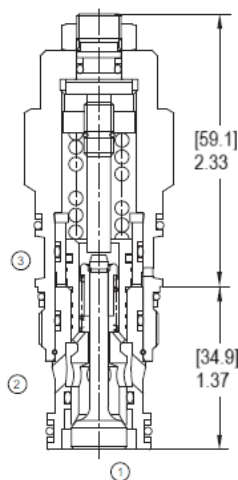
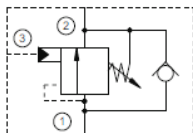


Counterbalance Valve, Hydraulic Cartridge

Functional Symbol



Description:

A screw-in, cartridge counterbalance valve with internal Check Valve. For use as a blocking or load-holding device in your Hydraulic system.

Operation:

The DCBD Counterbalance Valve with pilot assist are meant to control an overrunning load. The check valve allows free flow from the directional valve (port 2) to the load (port 1) while a direct-acting, pilot-assisted relief valve controls flow from port 1 to port 2. Pilot assist at port 3 lowers the effective setting of the relief valve at a rate determined by the pilot ratio. Other names for this valve include motion control valve and over-center valve.

Features:

- The setting of the balance valve should be at least 1.3 times of the load pressure value.
- Backpressure at port 2 adds to the effective relief setting at a ratio of 1 plus the pilot ratio times the backpressure.
- Reseat exceeds 85% of set pressure when the valve is standard set. Settings lower than the standard set pressure may result in lower reseal percentages.
- Compact size for space requirement consideration.
- Cartridge design for ease of installation and maintenance.
- Cavity T-2A

Ratings:

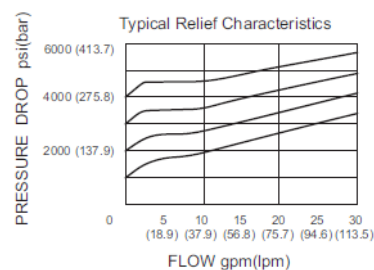
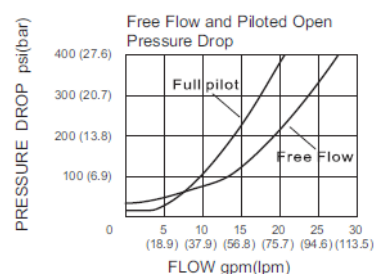
Rated Flow: 30 GPM (120 LPM)

Max. Inlet Pressure: 5,000 PSI (350 bar)

Operating Temperature: -22° to 250°f (-30° to 120°c)

Leak Rate: 5 drops/min. max. to 85% of nominal setting

Performance Curve Pressure Drop vs. Flow



Ordering Information:

DCBD A T2 - B N

Model	Pilot Ratio	Cavity	Adjustment Range	Seal Material
DCBD	A 3:1 Pilot Ratio	T2 T-2A Cavity	A 1000-4000 psi (70-280 bar) Preset: 3000 psi (210 bar) Check: 4 psi (0.3 bar)	N Buna-N
	B 4.5:1 Pilot Ratio		B 400-1500 psi (28-105 bar) Preset: 1000 psi (70 bar) Check: 4 psi (0.3 bar)	V Viton
	C 10:1 Pilot Ratio		C 1000-4000 psi (70-280 bar) Preset: 3000 psi (210 bar) Check: 25 psi (1.7 bar)	
			D 400-1500 psi (28-105 bar) Preset: 1000 psi (70 bar) Check: 25 psi (1.7 bar)	

Additional set pressures available by request