

LCWCG

Counterbalance Valve

DESCRIPTION

A cartridge-style vented counterbalance valve

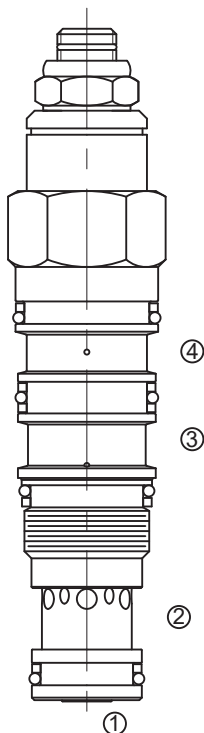
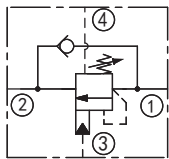
OPERATION

Vented counterbalance valves with pilot assist are meant to control an overrunning load. The check valve allows free flow from port ② to 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. Backpressure at port ② does not affect the valve setting because the spring chamber references the vent (port ④).

FEATURES

- Counterbalance valves should be set at least 1.3 times the maximum load induced pressure.
- Pressure at port ④ is added to the effective relief setting at a rate of 1 plus the pilot ratio times the pressure.
- 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.
- Factory pressure setting established at 30cc/min(2in3/min)

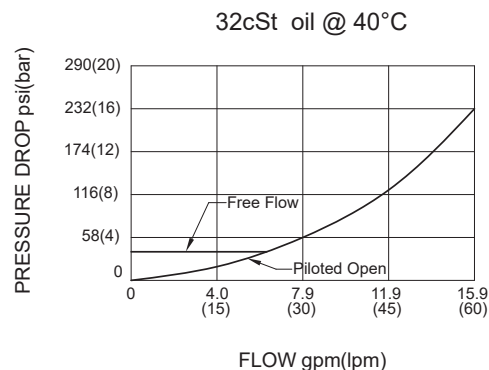
SYMBOL



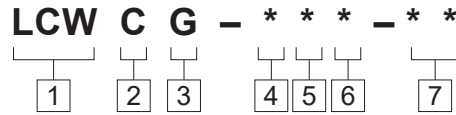
SPECIFICATIONS

MAX. Setting	420bar
Max. Recommended Load Pressure at Max. Setting	320bar
Flow	See PRESSURE DROP VS. FLOW graph.
Internal Leakage	5 drops/min
Pilot Ratio	5:1
Check Cracking Pressure	2.8bar
Temperature	-40°F to +250°F (-40 °C to +120 °C)
Filtration	See page N-1
Fluids	Mineral-based fluids with viscosities of 7.4 to 420 cSt.
Cavity	T-21A, See page M-32
Housing Material	6061-T6 aluminum alloy rated to 207Bar, Steel & Ductile iron rated to 350Bar

PRESSURE DROP VS.FLOW



TO ORDER



- 1 Function**
LCW=Counterbalance Cartridge Valve

- 2 Flow**
C=60L/min

- 3 Pilot Ratio**
G=5:1

- 4 Control**
L=Standard Screw Adjustment

- 5 Spring Ranges**
G=2000-6000psi(140-420bar)
Preset:4000psi(280bar)
F=1000-2500psi(70-175bar)
Preset:2000psi(140bar)

- 6 Seal Kits**
N=Buna N
V=Viton

- 7 Port Size**
Omit=None
6T=SAE6
8T=SAE8
3G=G 3/8
4G=G 1/2

- ※Other port sizes are available



INSTALLATION DIMENSIONS

Unit=Millimeters

Number of Counter-clockwise Turns : 5 Turns

