

LCBGA/LCBGG/LCBGH

Counterbalance Valve
Standard

DESCRIPTION

A cartridge-style standard capacity counterbalance valve

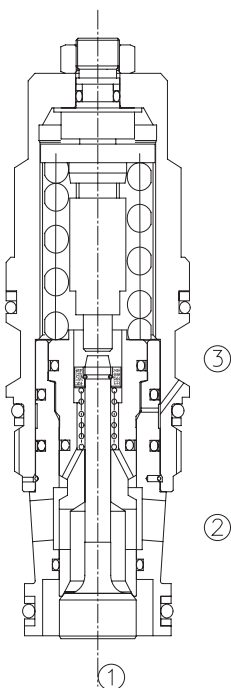
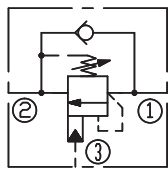
OPERATION

Counterbalance valves with pilot assist are meant for control on 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.

FEATURES

- Counterbalance valves should be set at least 1.3 times the maximum load induced pressure.
- Full clockwise setting is less than 14 bar.
- 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. Setting lower than the standard set pressure may result in lower reseal percentages.
- Factory pressure setting established at 30cc/min(2 in³/min).

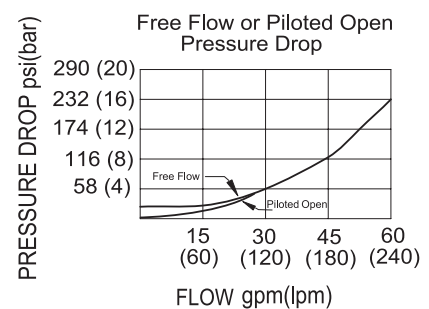
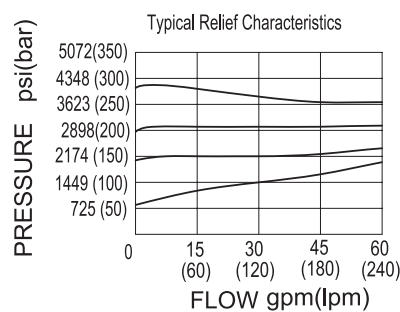
SYMBOL



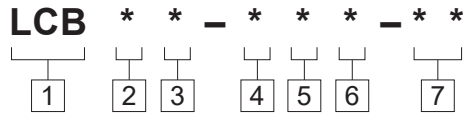
SPECIFICATIONS

Max. Setting	280 bar(LCBGA) 350 bar(LCBGG/LCBGH)
Max. Recommended Load Pressure at Max. Setting	215 bar(LCBGA) 270 bar(LCBGG/LCBGH)
Flow	See PRESSURE DROP VS.FLOW graph.
Internal Leakage	5 drops/min.
Pilot Ratio	(LCBGA) 3:1; (LCBGG) 4.5:1; (LCBGH) 10:1
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	SUN T-17A, See page M-7
Housing Material	6061-T6 aluminum alloy rated to 207bar, Steel & Ductile iron rated to 350bar

PRESSURE DROP VS.FLOW



TO ORDER



- 1 Function**
LCB=Counterbalance Cartridge Valve

- 2 Flow**
G=240L/min

- 3 Pilot Ratio**
A=3:1; G=4.5:1; H=10:1

- 4 Control**
L=Standard Screw Adjustment

- 5 Spring Ranges**

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

- 7 Port Size**
Omit=None
12T=SAE12
16T=SAE16
6G=G 3/4
8G=G 1

※ See page K-25—K-26 for detail of housing
 ※ Other port sizes are available

Spring Ranges LCBGA
 H=1000-4000psi(70-280bar)
 Preset:3000psi(210bar)(Check:1.7bar)
 I=400-1500psi(28-105bar)
 Preset:1000psi(70bar)(Check:1.7bar)
 A=1000-4000psi(70-280bar)
 Preset:3000psi(210bar)(Check:0.3bar)
 B=400-1500psi(28-105bar)
 Preset:1000psi(70bar)(Check:0.3bar)

Spring Ranges LCBGG/LCBGH
 J=2000-5000psi(140-350bar)
 Preset:3000psi(210bar)(Check:1.7bar)
 K=1000-2500psi(70-175bar)
 Preset:2000psi(140bar)(Check:1.7bar)
 C=2000-5000psi(140-350bar)
 Preset:3000psi(210bar)(Check:0.3bar)
 D=1000-2500psi(70-175bar)
 Preset:2000psi(140bar)(Check:0.3bar)

INSTALLATION DIMENSIONS

Unit=Millimeters

