

standard

DESCRIPTION

A cartridge-style standard capacity counterbalance valve

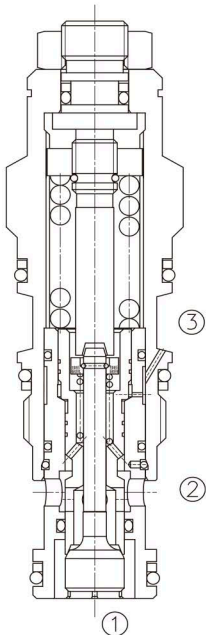
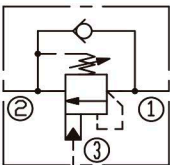
OPERATION

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.
- 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).

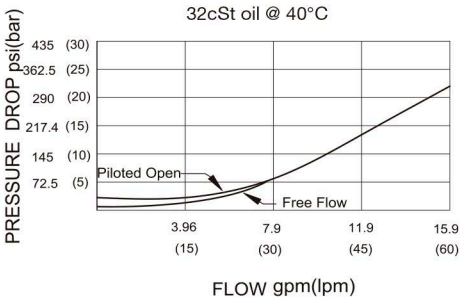
SYMBOL



SPECIFICATIONS

(Max. Setting):	280 bar (LCBCA) 350 bar (LCBCG/LCBCH)
(Max. Recommended Load Pressure at Max. Setting):	215bar(LCBCA) 270bar(LCBCG/LCBCH)
(Flow):	See PRESSURE DROP VS.FLOW graph.
(Internal Leakage):	5 drops/min .
(Pilot Ratio):	(LCBCA) 3: 1; (LCBCG) 4.5: 1;(LCBCH) 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-11A, See page M-6
(Body Material):	6061-T6 aluminum alloy rated to 207bar, Steel & Ductile iron rated to 350bar

PRESSURE DROP VS.FLOW



LCB * * - * * * - * *

1 2 3 4 5 6 7

1 LCB=
Counterbalance Cartridge Valve

2 Flow
C=60L/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 Body Porting
Blank=None
6T=SAE6 3G=G 3/8
8T=SAE8 4G=G 1/2
Other Porting is Available

LCBCA:

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)

LCBCG:

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)

LCBCH:

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

INSTALLATION DIMENSIONS

Unit=Millimeters

Number of Counter-clockwise Turns

