

standard

DESCRIPTION

A cartridge-style standard capacity counterbalance valve

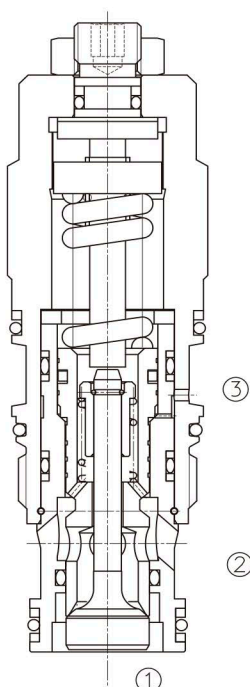
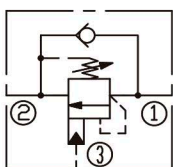
OPERATION

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).

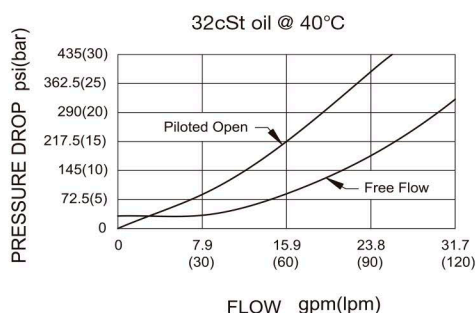
SYMBOL



SPECIFICATIONS

(Max. Setting):	280 bar
(Max. Recommended Load Pressure at Max. Setting):	215bar
(Flow):	See PRESSURE DROP VS.FLOW graph.
(Internal Leakage):	5 drops/min
(Pilot Ratio):	3: 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-2A, 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

- | | | |
|---|--|---|
| <p>1 LCB=
Counterbalance Cartridge Valve</p> <hr/> <p>2 Flow
E=120L/min</p> <hr/> <p>3 Pilot Ratio
A=3:1</p> <hr/> <p>4 Control
L=Standard Screw Adjustment</p> <hr/> | <p>5 Spring Ranges
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)</p> <hr/> <p>6 Seal Kits
N= Buna N
V= Viton</p> <hr/> | <p>7 Body Porting
Blank=None
8T=SAE8
10T=SAE10
3G=G 3/8
4G=G 1/2</p> <hr/> <p>Other Porting is Available</p> |
|---|--|---|

G

INSTALLATION DIMENSIONS

Unit=Millimeters

