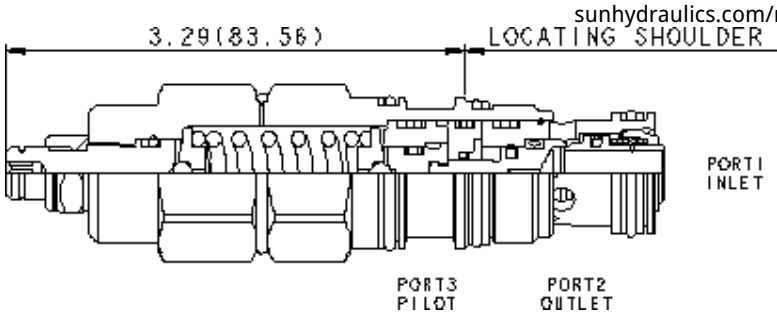3-Port Atmospherically Referenced

Atmospherically vented counterbalance valves 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. Backpressure at port 2 does not affect the valve setting because the spring chamber is atmospherically referenced.

Other names for this valve include motion control valve and over-center valve.

CONFIGURATION

L	Control	Standard Screw Adjustment
I	Functional Setting Range	400 - 1500 psi (28 - 105 bar), 1000 psi (70 bar) Standard Setting
N	Seal Material	Buna-N
(none)	Material/Coating	

TECHNICAL DATA
NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	3:1
Maximum Recommended Load Pressure at Maximum Setting	3075 psi
Maximum Setting	4000 psi
Factory Pressure Settings Established at	2 in³/min.
Maximum Valve Leakage at Reseat	5 drops/min.
Check Cracking Pressure	25 psi
Adjustment - No. of CCW Turns from Min. to Max. Setting	5
Reseat	>85% of setting
Locknut Hex Size	9/16 in.
Locknut Torque	80 - 90 lbf in.
Seal kit - Cartridge	Buna: 990302007
Seal kit - Cartridge	Viton: 990302006

CONFIGURATION OPTIONS

Model Code Example: CAEALIN

CONTROL (L)	FUNCTIONAL SETTING RANGE (I)	SEAL MATERIAL (N)	MATERIAL/COATING
L Standard Screw Adjustment	**I** 400 - 1500 psi (28 - 105 bar), 1000 psi (70 bar) Standard Setting	**N** Buna-N	Standard Material/Coating
C Tamper Resistant - Factory Set	**H** 1000 - 4000 psi (70 - 280 bar), 3000 psi (210 bar) Standard Setting	**V** Viton	**/AP** Stainless Steel, Passivated
			/LH Mild Steel, Zinc-Nickel