



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.

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

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|---|-------------------------|
| Pilot Ratio | 3:1 |
| Maximum Recommended Load Pressure at Maximum Setting | 3075 psi |
| Maximum Setting | 4000 psi |
| Adjustment - No. of CCW Turns from Min. to Max. Setting | 5 |
| Check Cracking Pressure | 25 psi |
| Factory Pressure Settings Established at | 2 in ³ /min. |
| Maximum Valve Leakage at Reseat | 5 drops/min. |
| Reseat | >85% of setting |
| Locknut Hex Size | 9/16 in. |
| Locknut Torque | 80 - 90 lbf in. |
| Seal kit - Cartridge | Buna: 990-302-007 |
| Seal kit - Cartridge | Viton: 990-302-006 |

CONFIGURATION OPTIONS

- CONTROL** (L)
- L** Standard Screw Adjustment
 - C** Tamper Resistant - Factory Set

Model Code Example: CAEALHNV

- FUNCTIONAL SETTING RANGE** (H)
- H** 1000 - 4000 psi (70 - 280 bar), 3000 psi (210 bar) Standard Setting
 - I** 400 - 1500 psi (28 - 105 bar), 1000 psi (70 bar) Standard Setting

- SEAL MATERIAL** (N)
- N** Buna-N
 - V** Viton

- MATERIAL/COATING**
- Standard Material/Coating**
 - JAP** Stainless Steel, Passivated
 - /LH** Mild Steel, Zinc-Nickel