



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.

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

CONFIGURATION

L	Control	Standard Screw Adjustment
K	Functional Setting Range	1000 - 2500 psi w/25 psi Check (70 - 175 bar w/ 1,7 bar Check), 2000 psi (140 bar) Standard Setting
V	Seal Material	Viton
(none)	Material/Coating	Standard Material/Coating

TECHNICAL DATA

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

Pilot Ratio	10:1
Maximum Recommended Load Pressure at Maximum Setting	3850 psi
Maximum Setting	5000 psi
Factory Pressure Settings Established at	2 in ³ /min.
Maximum Valve Leakage at Reseat	5 drops/min.
Adjustment - No. of CCW Turns from Min. to Max. Setting	3.75
Reseat	>85% of setting
Locknut Hex Size	9/16 in.
Locknut Torque	80 - 90 lbf in.
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	EPDM: 990011014
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

CONFIGURATION OPTIONS

Model Code Example: CBCHLKV

CONTROL	(L) FUNCTIONAL SETTING RANGE	(K) SEAL MATERIAL	(V) MATERIAL/COATING
L Standard Screw Adjustment	K 1000 - 2500 psi w/25 psi Check (70 - 175 bar w/ 1,7 bar Check), 2000 psi (140 bar) Standard Setting	V Viton	Standard Material/Coating
C Tamper Resistant - Factory Set	C 2000 - 5000 psi w/4 psi Check (140 - 350 bar w/ 0,3 bar Check), 3000 psi (210 bar) Standard Setting	E EPDM	/AP Stainless Steel, Passivated
	D 1000 - 2500 psi w/4 psi Check (70 - 175 bar w/ 0,3 bar Check), 2000 psi (140 bar) Standard Setting	N Buna-N	/LH Mild Steel, Zinc-Nickel
	J 2000 - 5000 psi w/25 psi Check (140 - 350 bar w/ 1,7 bar Check), 3000 psi (210 bar) Standard Setting		