



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

<b>L</b>	Control	Standard Screw Adjustment
<b>H</b>	Functional Setting Range	1000 - 4000 psi w/25 psi Check (70 - 280 bar w/ 1,7 bar Check), 3000 psi (210 bar) Standard Setting
<b>N</b>	Seal Material	Buna-N
<b>(none)</b> Material/Coating		

### TECHNICAL DATA

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

Pilot Ratio	1.5:1
Maximum Recommended Load Pressure at Maximum Setting	215 bar
Maximum Setting	280 bar
Factory Pressure Settings Established at	30 cc/min.
Maximum Valve Leakage at Reseat	0,3 cc/min.
Adjustment - No. of CCW Turns from Min. to Max. Setting	3.75
Reseat	>85% of setting
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

### CONFIGURATION OPTIONS

Model Code Example: **CBDBLHN**

CONTROL	(L) FUNCTIONAL SETTING RANGE	(H) SEAL MATERIAL	(N) MATERIAL/COATING
<b>L</b> Standard Screw Adjustment <b>C</b> Tamper Resistant - Factory Set	<b>H</b> 1000 - 4000 psi w/25 psi Check (70 - 280 bar w/ 1,7 bar Check), 3000 psi (210 bar) Standard Setting <b>A</b> 1000 - 4000 psi w/4 psi Check (70 - 280 bar w/ 0,3 bar Check), 3000 psi (210 bar) Standard Setting <b>B</b> 400 - 1500 psi w/4 psi Check (28 - 105 bar w/ 0,3 bar Check), 1000 psi (70 bar) Standard Setting <b>I</b> 400 - 1500 psi w/25 psi Check (28 - 105 bar w/ 1,7 bar Check), 1000 psi (70 bar) Standard Setting	<b>N</b> Buna-N <b>V</b> Viton	Standard Material/Coating /AP Stainless Steel, Passivated /LH Mild Steel, Zinc-Nickel