

4.5:1 pilot ratio, vented counterbalance valve - atmospherically referenced

Capacity:
7.5 gpm (30
L/min.)

Functional Group:

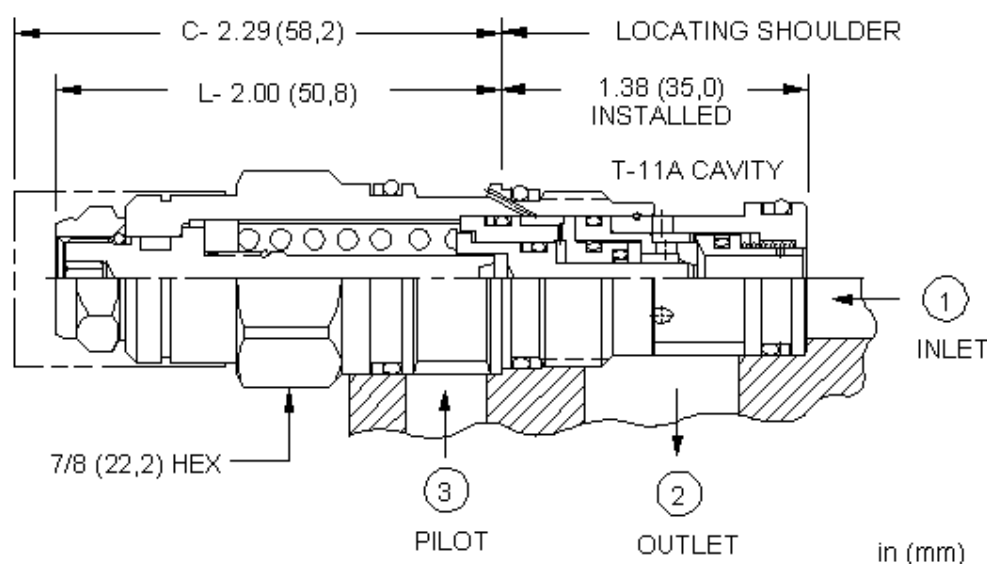
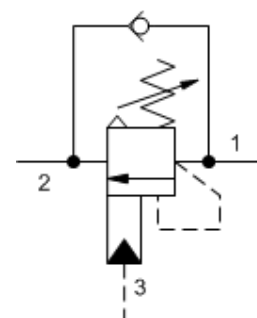
Products : Cartridges : Counterbalance : 3-Port Atmospherically Referenced : Atmospherically Referenced, 4.5:1 Pilot Ratio

Model:
CABG

Product Description

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.

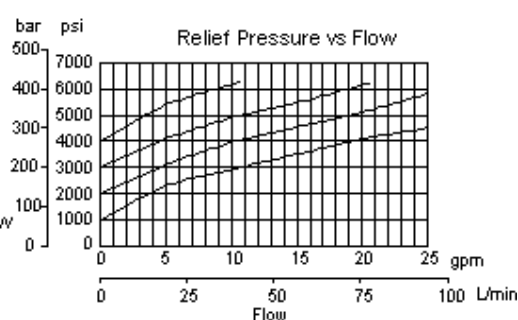
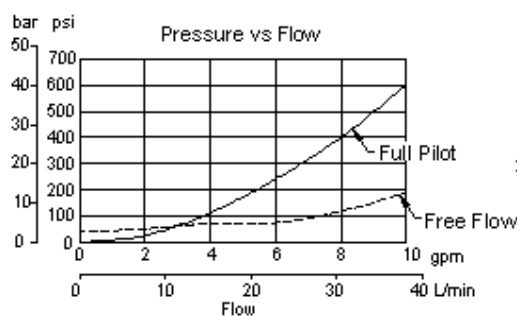


Technical Features

- Counterbalance valves should be set at least 1.3 times the maximum load induced pressure.
- Turn adjustment clockwise to decrease setting and release load.
- Full clockwise setting is 200 psi (14 bar).
- Sun counterbalance cartridges can be installed directly into a cavity machined in an actuator housing for added protection and improved stiffness in the circuit.
- This valve has positive seals between all ports.
- With vented valves, a lower pilot ratio may be required to achieve machine stability compared to non-vented valves.
- Free-flow check capacity (port 2 to port 1) is equivalent to the CAC* and CWC* models but the piloted-open flow capacity (port 1 to port 2) is reduced. See performance curve.
- All 3-port counterbalance and pilot-to-open check cartridges are physically interchangeable (i.e. same flow path, same cavity for a given frame size), however, the model CABG has a reduced overall length, allowing for easier packaging.
- Approximately 1 drop (0,07 cc) of fluid will pass from the pilot area to the vented spring chamber every 4000 cycles.
- Reseat exceeds 85% of set pressure when the valve is standard set. Settings lower than the standard set pressure may result in lower reseal percentages.
- Incorporates the Sun floating style construction to minimize the possibility of internal parts binding due to excessive installation torque and/or cavity/cartridge machining variations.

Technical Data

	U.S. Units	Metric Units
Cavity	T-11A	
Capacity	7.5 gpm	30 L/min.
Pilot Ratio	4.5:1	
Maximum Recommended Load Pressure at Maximum Setting	3075 psi	215 bar
Maximum Setting	4000 psi	280 bar
Adjustment - Number of Counterclockwise Turns to Increase Setting	3	
Check Cracking Pressure	25 psi	1,7 bar
Factory Pressure Settings Established at	2 in ³ /min.	30 cc/min.
Maximum Valve Leakage at Reseat	5 drops/min.	0,3 cc/min.
Series (from Cavity)	Series 1	
Reseat	>85% of Set Pressure	
Valve Hex Size	7/8 in.	22,2 mm
Valve Installation Torque	30 - 35 lbf ft	40 - 50 Nm
Adjustment Screw Internal Hex Size	5/32 in.	4 mm
Adjustment Locknut/Cap Hex Size	9/16 in.	15 mm
Adjustment Nut Torque	80 - 90 lbf in.	9 - 10 Nm
Seal Kits - Cartridge	Buna: 990-011-007	
Seal Kits - Cartridge	Viton: 990-011-006	
Model Weight	0.35 lb.	0.16 kg.

**CABG-LHN****Control****Standard Options**

- C*** Tamper Resistant - Factory Set
- L** Standard Screw Adjustment

Functional Setting Range**Standard Options**

- H** 1000 - 4000 psi w/25 psi Check (70 - 280 bar w/1,7 bar Check), 3000 psi (210 bar) Standard Setting

Seal Material**Standard Options**

- N** Buna-N
- V** Viton

* Special Setting required, specify at time of order
Customer specified setting stamped on hex.