



Standard capacity counterbalance valve without pilot assist

Capacity:
15 gpm (60 L/min.)

Functional Group:

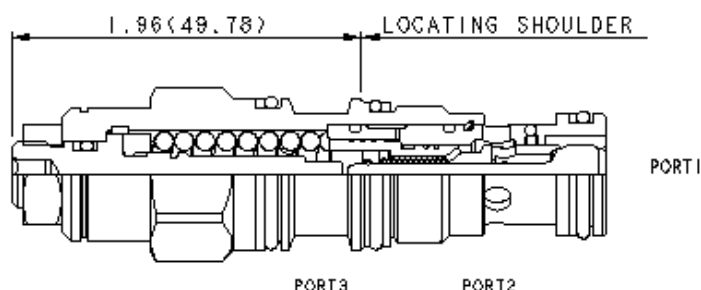
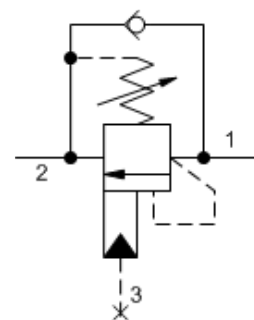
Products : Cartridges : Counterbalance : 3-Port Non-vented, Without Pilot Assist : Standard, Zero Pilot Ratio

Model:

CCCA

Product Description

Counterbalance valves without 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 relief valve controls flow from port 1 to port 2.



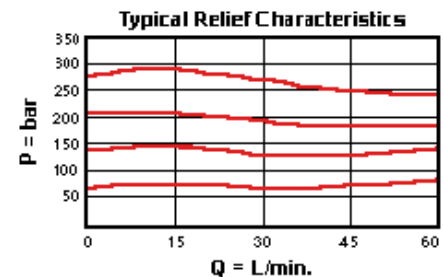
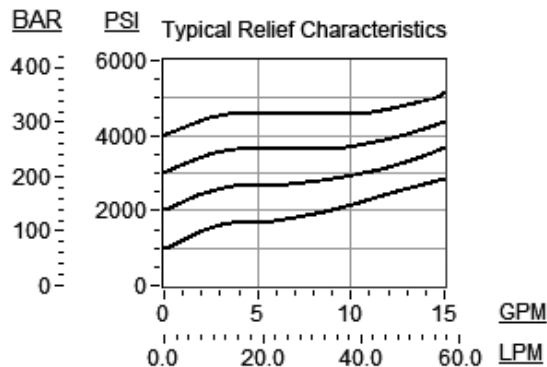
Technical Features

- 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 less than 200 psi (14 bar).
- All 3-port counterbalance, load control, and pilot-to-open check cartridges are physically interchangeable (i.e. same flow path, same cavity for a given frame size).
- Sun counterbalance cartridges can be installed directly into a cavity machined in an actuator housing for added protection and improved stiffness in the circuit.
- Two check valve cracking pressures are available. Use the 25 psi (1,7 bar) check unless actuator cavitation is a concern.
- These valves are modified versions of our pilot assisted counterbalance valves. The pilot assist area has been nullified internally. There is no connection to port 3.
- Backpressure at port 2 is directly additive to the relief setting of the valve.
- Lower pilot ratios (pilot gain) promote machine stability. This valve has a pilot ratio of zero. Stability is gained at the expense of efficiency.
- 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.
- Corrosion resistant cartridge valves are intended for use in corrosive environments and are identified by the model code suffix /AP (see Option Selection below). External parts are made from stainless steel with titanium or brass components, where applicable. Internal parts are made from carbon steel leaded alloy, the same as standard valves. For further details, please see the Materials of Construction page.
- 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

11.2011

	U.S. Units	Metric Units
Cavity	T-11A	
Capacity	15 gpm	60 L/min.
Pilot Ratio	Zero	
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	3.75	
Factory Pressure Settings Established at	2 in ³ /min.	30 cc/min.
Maximum Operating Pressure	5000 psi	350 bar
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	0.34 lb.	0.15 kg.



CCCA-LHN

Control	Functional Setting Range	Seal Material	Material/Coating Modifier
Standard Options	Standard Options	Standard Options	Preferred Options
C* Tamper Resistant - Factory Set	A 1000 - 4000 psi w/4 psi Check (70 - 280 bar w/0,3 bar Check), 3000 psi (210 bar) Standard Setting	N Buna-N	No modifier (standard material with no special coating)
J Capped Screw Adjustment	B 400 - 1500 psi w/4 psi Check (28 - 105 bar w/0,3 bar Check), 1000 psi (70 bar) Standard Setting	V Viton	Special Options
L Standard Screw Adjustment	H 1000 - 4000 psi w/25 psi Check (70 - 280 bar w/1,7 bar Check), 3000 psi (210 bar) Standard Setting		/AP Stainless Steel, Passivated
	I 400 - 1500 psi w/25 psi Check (28 - 105 bar w/1,7 bar Check), 1000 psi (70 bar) Standard Setting		Control: C
			Control: L
			Our corrosion resistant product line is growing! If you are interested in a corrosion resistant option for this model, please contact Sun.

Additional Options

Control

R* Lockwired Screw Adjustment

When the modifier is /AP, the control must be C or L

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

Functional Setting Range

Seal Material