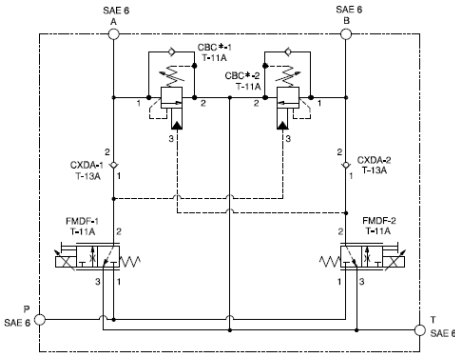




This valve assembly provides independent, proportional meter-in speed control for ports A and B, overrunning load control, and load-port relief protection. It also supplies make-up oil and flushes hot dirty oil out of the actuator. All oil coming out of the actuator returns to tank through port T.



TECHNICAL DATA

NOTE:

Body Type	Line mount	DATA MAY VARY BY
Capacity	9 gpm	

CONFIGURATION

NOTES: • When configured with the XMD driver, a wiring harness is required to connect the XMD to the system and must be purchased separately. Sun offers a selection of L Control harnesses **Standard | Available | Custom** | Electronics | I/O Modules | Accessories.

H Functional Range **Important:** Capacity is 9 gpm. Check maximum system pressure. The pressure rating of the manifold is dependent on the manifold material, with the port type/size a secondary consideration. Manifolds constructed of aluminum are not rated for pressures higher than 3000 psi (210 bar), regardless of the port type/size specified. For detailed information regarding the cartridges contained in this assembly, click on the models codes shown in the Included Components tab.

N Seal Material	Buna-N
A Pilot Ratio (4th Letter) of Primary Cartridge	3:1 (with CBCA primary cartridge, 3:1 pilot ratio, standard capacity counterbalance valve)
I Port and Material Designation	Ports A, B, P, T — SAE 6; Mtg Holes — .312 - 18UNC x .56 DP; Aluminum
Coil	

CONFIGURATION. SEE CONFIGURATION SECTION.

OPTION SELECTION EXAMPLE: XCCLLHNAI

CONTROL	(L) FUNCTIONAL SETTING RANGE	(H) SEAL MATERIAL	(N)
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	N Buna-N	
	A 1000 - 4000 psi w/4 psi Check (70 - 280 bar w/ 0,3 bar Check), 3000 psi (210 bar) Standard Setting	V Viton	
	B 400 - 1500 psi w/4 psi Check (28 - 105 bar w/ 0,3 bar Check), 1000 psi (70 bar) Standard Setting		
	I 400 - 1500 psi w/25 psi Check (28 - 105 bar w/ 1,7 bar Check), 1000 psi (70 bar) Standard Setting		

PRIMARY CARTRIDGE (A)

A	3:1 (with CBCA primary cartridge, 3:1 pilot ratio, standard capacity counterbalance valve)
B	1.5:1 (with CBCBX primary cartridge, Fixed setting, 1.5:1 pilot ratio, standard capacity counterbalance valve)
G	4.5:1 (with CBCGX primary cartridge, Fixed setting, 4.5:1 pilot ratio, standard capacity counterbalance valve)
A	3:1 (with CBCAX primary cartridge, Fixed setting, 3:1 pilot ratio, standard capacity counterbalance valve)
G	4.5:1 (with CBCG primary cartridge, 4.5:1 pilot ratio, standard capacity counterbalance valve)
B	1.5:1 (with CBCB primary cartridge, 1.5:1 pilot ratio, standard capacity counterbalance valve)

INCLUDED COMPONENTS

Part	Description	Quantity
CBCALHN	Cartridge - Primary	2
CXDAXCN	Cartridge	2
FMDFMDN	Cartridge	2

TECHNICAL FEATURES

- The counterbalance valves should be set at 1.3 times the maximum load induced pressure.
- The term cushion in the name Cushion Lock is a misnomer. Because the counterbalance valves play a dual role as load controls and work port reliefs they must be set too high to provide any real cushion. Deceleration can only be achieved by ramping down the input flow.
- This assembly is ideal for applications with long lines to the actuators. Mounting the assembly close to an actuator ensures that cool, clean oil will be supplied to the actuator and that the hot, dirty oil will go out the T port to the tank
- Low pilot ratio counterbalance valves (3:1 vrs 10:1) may be necessary to generate enough pressure to release a brake.
- Hydraulic motors leak. Therefore a mechanical brake is recommended to positively lock any stopped live load.
- Includes mounting threads 8-32 UNC-2B x .28 (7 mm) deep for optional XMD driver. When not configured with cartridge, the XMD driver must be purchased separately. A harness will be required.