



Balanced load control valve

Capacity:
120 gpm (480 L/min.)

Functional Group:

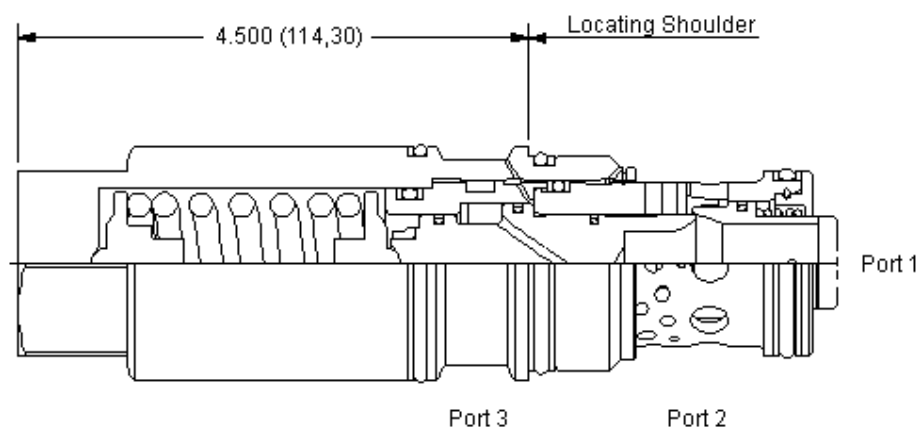
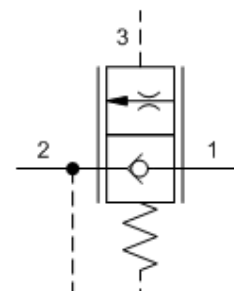
Products : Cartridges : Load Control, Balanced : 3 Port : Non-Vented

Model:

MBIM

Product Description

Balanced load control valves combine a balanced modulating element with a reverse flow check. The check valve allows free flow from the directional valve (port 2) to the load (port 1) while the pilot to open modulating element controls flow from port 1 to port 2. Pilot pressure at port 3 determines the flow setting.

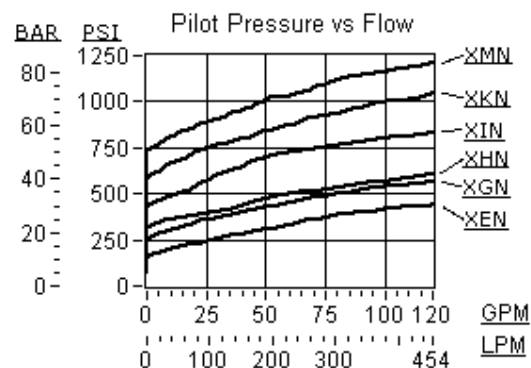
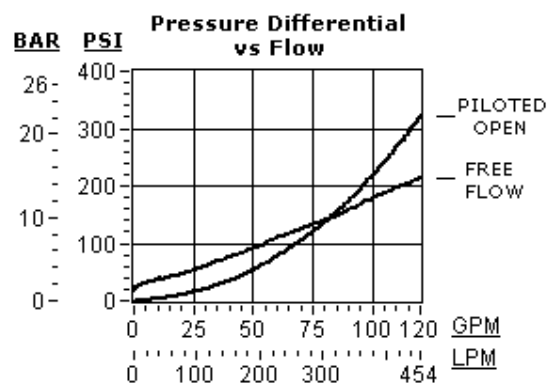


Technical Features

- This valve has no relief function. Not even thermal expansion relief.
- Maximum valve leakage at reseal for I, K, M ranges is 5 drops/min. (0,3 cc/min.) at 200 psi (14 bar) below cracking pressure; E, G, H ranges is 3 cubic in/min. (50 cc/min.) at 50 psi (3,5 bar) below cracking pressure.
- E, G, H ranges are not meant for zero leak type applications.
- This valve is balanced against load pressures and therefore exhibits self-compensation. Flow is controlled by the pilot pressure. Because of dynamic seals, performance is best in the meter out mode with port 1 being the load and port 2 being tank.
- 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).
- This valve has positive seals between all ports.
- Backpressure at port 2 directly opposes pilot pressure at port 3.
- This valve is a physical replacement for a counterbalance valve but probably won't work well in a cross-piloted cylinder application. A low pilot ratio is needed for machine stability and a balanced load control has an infinitely high pilot ratio.
- Applications that use a separate pressure source to the pilot have been successful in providing smooth and stable load control.
- Sun load control cartridges can be installed directly into a cavity machined in an actuator housing for added protection and improved stiffness in the circuit.
- 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-19A	
Capacity	120 gpm	480 L/min.
Check Cracking Pressure	25 psi	1,7 bar
Maximum Operating Pressure	5000 psi	350 bar
Maximum Valve Leakage at Reseat	See Technical Features	
Series (from Cavity)	Series 4	
Valve Hex Size	1 5/8 in.	41,3 mm
Valve Installation Torque	350 - 375 lbf ft	475 - 500 Nm
Model Weight	4.12 lb.	1.87 kg.

**MBIM-XIN****Control****Standard Options****X** Not Adjustable**Minimum Control Pressure****Standard Options**

E 75 psi (5 bar)
G 100 psi (7 bar)
H 200 psi (14 bar)
I 300 psi (20 bar)
K 450 psi (33 bar)
M 525 psi (36,7 bar)

Seal Material**Standard Options**

N Buna-N
V Viton