1.5:1 pilot ratio, load reactive load control valve

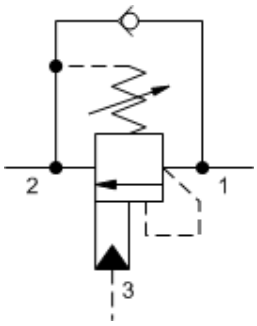
Capacity:
60 gpm (240 L/min.)

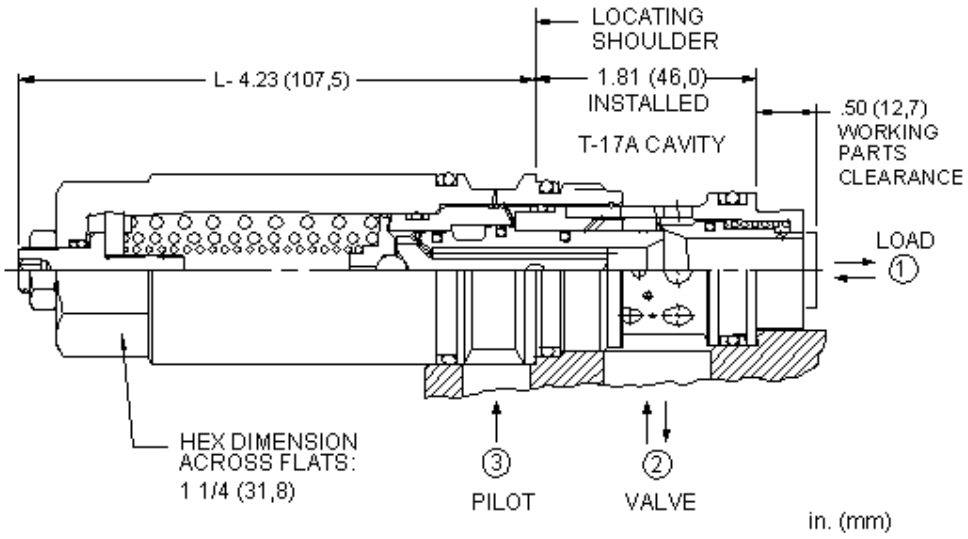
Functional Group:
Products : Cartridges : Load Control Valve, Load Reactive : 3 Port, Non-Vented : 1.5:1 Pilot Ratio

Model:
MBGB

Product Description

Load reactive, load control valves with pilot assist combine two valves; a check valve and a relief valve. 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.



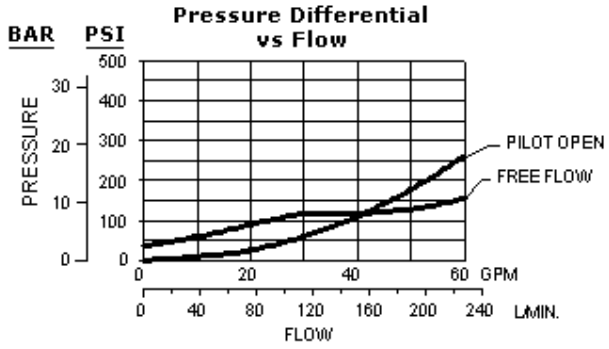


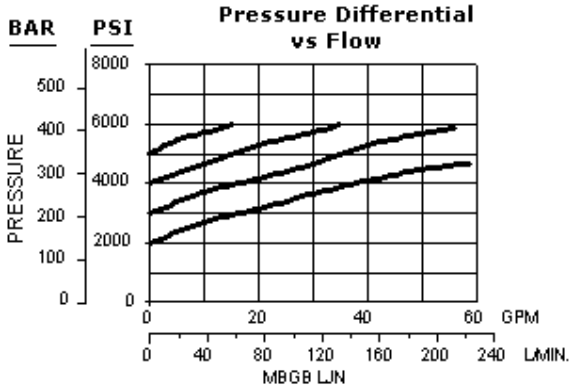
Technical Features

- Load reactive load control 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 1000 psi (70 bar) for the H range and 2000 psi (140 bar) for the J range.
- 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 adds to the effective relief setting at a ratio of 1 plus the pilot ratio times the backpressure.
- This valve is functionally a 3 port counterbalance valve. It seats as a poppet valve and modulates as a spool valve offering the best of both worlds.
- These valves are capable of modulating over a broader range of flows than the pure poppet designs. The longer stroke allows us to incorporate a uni-directional damping device that smooths the opening and lets the valve close quickly.
- This valve has full relief capacity.
- 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-17A	
Capacity	60 gpm	240 L/min.
Pilot Ratio	1.5:1	
Maximum Recommended Load Pressure at Maximum Setting	3760 psi	260 bar
Maximum Setting	5000 psi	350 bar
Adjustment - Number of Counterclockwise Turns to Increase Setting	5	
Check Cracking Pressure	25 psi	1,7 bar
Factory Pressure Settings Established at	2 in³/min.	30 cc/min.
Maximum Valve Leakage at Reseat	5 drops/min.	0,3 cc/min.
Series (from Cavity)	Series 3	
Reseat	>85% of Set Pressure	
Valve Hex Size	1 1/4 in.	31,8 mm
Valve Installation Torque	150 - 160 lbf ft	200 - 215 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: 990-017-007	
Seal Kits - Cartridge	Viton: 990-017-006	
Model Weight	2.09 lb.	0.95 kg.





MBGB-LHN

Control	Functional Setting Range	Seal Material
Standard Options	**Standard Options**	**Standard Options**
L Standard Screw Adjustment	**H** 1000 - 4000 psi (70 - 280 bar), 3000 psi (210 bar) Standard Setting	**N** Buna-N
	J 2000 - 5000 psi (140 - 350 bar), 3000 psi (210 bar) Standard Setting	**V** Viton

Customer specified setting stamped on hex.