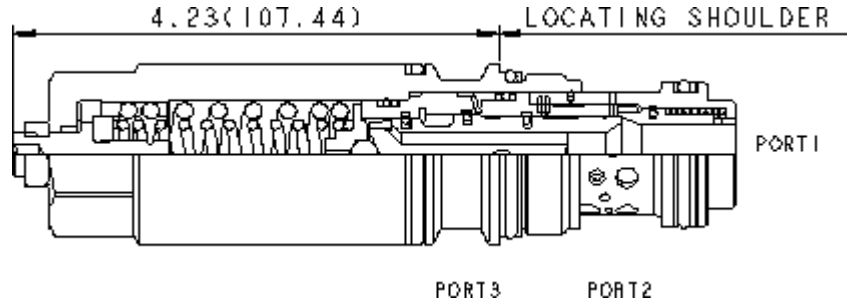




3-Port Non-vented



CONFIGURATION

| | |
|-----------------------------------|--|
| L Control | Standard Screw Adjustment |
| H Functional Setting Range | 1000 - 4000 psi (70 - 280 bar), 3000 psi (210 bar) Standard Setting |
| N Seal Material | Buna-N |
| Material/Coating | |

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 DATA

NOTE:
DATA MAY
VARY BY

| | |
|---|---------------------------|
| Cavity | T-17A |
| Series | 3 |
| Capacity | 60 gpm |
| Maximum Operating Pressure | 5000 psi |
| Pilot Ratio | 1.5:1 |
| Maximum Recommended Load Pressure | See Technical Features |
| Adjustment - No. of CCW Turns from Min. to Max. Setting | 9 |
| Check Cracking Pressure | 25 psi |
| Factory Pressure Settings Established at | 2 in ³ /min. |
| Maximum Valve Leakage at Reseat | 5 drops/min. |
| Reseat | ≥77% of setting |
| Valve Hex Size | 1 1/4 in. |
| Valve Installation Torque | 150 - 160 lbf ft |
| Adjustment Screw Internal Hex Size | 5/32 in. |
| Locknut Hex Size | 9/16 in. |
| Locknut Torque | 80 - 90 lbf in. |
| Seal kit - Cartridge | Buna: 990-017-007 |
| Seal kit - Cartridge | Polyurethane: 990-017-002 |
| Seal kit - Cartridge | Viton: 990-017-006 |

CONFIGURATION. SEE
CONFIGURATION SECTION.

OPTION SELECTION EXAMPLE: MBGBLHN

| CONTROL | (L) FUNCTIONAL SETTING RANGE | (H) SEAL MATERIAL | (N) MATERIAL/COATING |
|-----------------------------|---|-----------------------------------|---|
| L Standard Screw Adjustment | H 1000 - 4000 psi (70 - 280 bar), 3000 psi (210 bar) Standard Setting J 2000 - 5000 psi (140 - 350 bar), 3000 psi (210 bar) Standard Setting | N Buna-N V Viton | Standard Material/Coating /AP Stainless Steel, Passivated |

TECHNICAL FEATURES

- Set at least 1.3 times the maximum load induced pressure (1.5 times when the setting is less than 2000 psi or 140 bar).
- The maximum recommended load pressure for the H range is 3080 psi (212 bar).
- The maximum recommended load pressure for the J range is 3850 psi (265 bar).
- 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.
- 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 valve types.
- 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.
- Corrosion resistant cartridge valves are intended for use in corrosive environments and are identified by the model code suffix /AP for external stainless steel components, or /LH for external zinc-nickel plated components. See the CONFIGURATION section for all options. For further details, please see the Materials of Construction page located under TECH RESOURCES.
- 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 load control and 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.
- This valve has full relief capacity.
- 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.

PERFORMANCE CURVES

