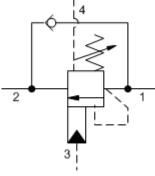


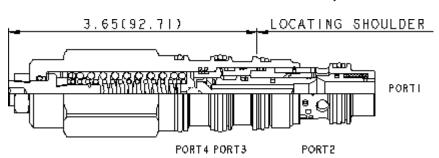
Vented, 3:1 pilot ratio, load reactive, load control valve CAPACITY: 30 gpm / CAVITY: T-22A



sunhydraulics.com/model/MWEA



4-Port Vented



Vented, 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, pilotassisted 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. Backpressure at port 2 does not affect the valve setting because the spring chamber references the vent (port 4).

## TECHNICAL DATA NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

| Cavity  | T-22A                     |  |  |  |
|---|---------------------------|--|--|--|
| Series  | 2                         |  |  |  |
| Capacity  | 30 gpm                    |  |  |  |
| Maximum Operating Pressure                              | 5000 psi                  |  |  |  |
| Pilot Ratio   | 3:1                       |  |  |  |
| 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 in³/min.                |  |  |  |
| Maximum Valve Leakage at Reseat                         | 5 drops/min.              |  |  |  |
| Reseat  | ≥77% of setting           |  |  |  |
| Valve Hex Size  | 1 1/8 in.                 |  |  |  |
| Valve Installation Torque                               | 45 - 50 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: 990-022-007         |  |  |  |
| Seal kit - Cartridge                                    | Polyurethane: 990-022-002 |  |  |  |
| Seal kit - Cartridge                                    | Viton: 990-022-006        |  |  |  |

## **OPTION SELECTION EXAMPLE: MWEALHN**

| CONTROL                          | (L) | FUI   | FUNCTIONAL SETTING RANGE (H) SEAL MATERIAL |   | (N)      | MATERIAL/COATING |                         |                             |
|----------------------------------|-----|---|--|---|----------|------------------|-------------------------|-----------------------------|
| L Standard Screw Adjustment      |     | H 1000 - 4000 psi (70 - 280 bar), 3000                                  |  | Ν | N Buna-N |                  |                         | Standard Material/Coating   |
| C Tamper Resistant - Factory Set |     |   | psi (210 bar) Standard Setting             | V | Viton    |                  | /AP                     | Stainless Steel, Passivated |
|                                  | J   | 2000 - 5000 psi (140 - 350 bar),<br>3000 psi (210 bar) Standard Setting | <b>,</b> .                                 |   |          | /LH              | Mild Steel, Zinc-Nickel |                             |

## **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.
- 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 guickly.
- This valve is functionally a 4-port counterbalance valve. It seats as a poppet valve and modulates as a spool valve, offering the best of both valve types.
- All 4-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).
- 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.
- 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

