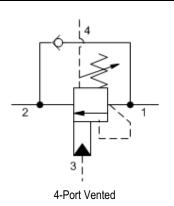


MODEL MWGG

Vented, 4.5:1 pilot ratio, load reactive, load control valve SERIES 3 / CAPACITY: 240 L/min. / CAVITY: T-23A





4. 23 (107. 44) LOCATING SHOULDER PORT4 PORT3 PORT4 PORT3 Sunhydraulics.com/model/MWGG SHOULDER

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

CONFIGURATION

L	Control	Standard Screw Adjustment
J	Functional Setting Range	2000 - 5000 psi (140 - 350 bar), 3000 psi (210 bar) Standard Setting
N	Seal Material	Buna-N

TECHNICAL DATA

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

Cavity	T-23A
Series	3
Capacity	240 L/min.
Pilot Ratio	4.5:1
Maximum Recommended Load Pressure at Maximum Setting	260 bar
Maximum Setting	350 bar
Factory Pressure Settings Established at	30 cc/min.
Maximum Valve Leakage at Reseat	0,3 cc/min.
Check Cracking Pressure	1,7 bar
Adjustment - No. of CCW Turns from Min. to Max. Setting	9
Reseat	>85% of setting
Valve Hex Size	31,8 mm
Valve Installation Torque	203 - 217 Nm
Seal kit - Cartridge	Buna: 990023007
Seal kit - Cartridge	Polyurethane: 990023002
Seal kit - Cartridge	Viton: 990023006
Model Weight	0.95 kg.

CONFIGURATION OPTIONS

Model Code Example: MWGGLJN

L Standard Screw Adjustment

CONTROL

(L) FUNCTIONAL SETTING RANGE

(J) SEAL MATERIAL

(N)

J 2000 - 5000 psi (140 - 350 bar), 3000 psi (210 bar) Standard Setting

N Buna-N V Viton

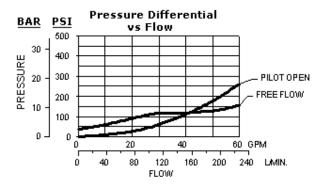
H 1000 - 4000 psi (70 - 280 bar), 3000 psi (210 bar) Standard Setting

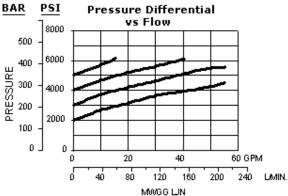
© 2020 Sun Hydraulics 1 of 2

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).
- 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 quickly.
- 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 worlds.
- 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).
- 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





RELATED MODELS

• MWGGX Fixed setting, vented, 4.5:1 pilot ratio, load reactive, load control valve

© 2020 Sun Hydraulics 2 of 2