

15 GPM PWM VALVE ASSEMBLY

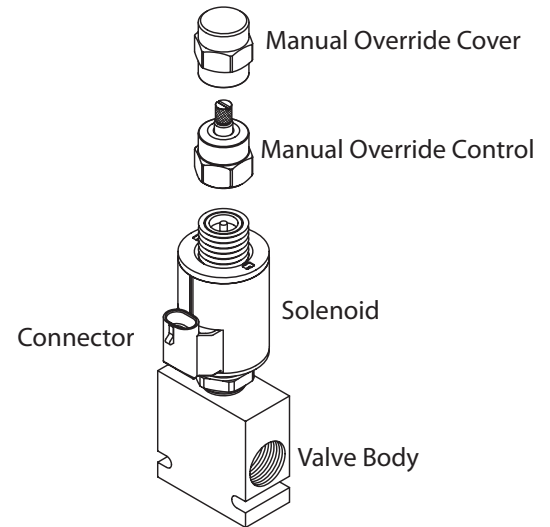
P/N 18766



A solenoid-operated, electrically-variable, three-port, pressure-compensated, spool type, normally closed when de-energized, proportional flow control valve. It can be used as a priority-type flow regulator with pressure-compensated, regulated and bypass flow. It can also be used as a restrictive-type 2-way, pressure-compensated flow regulator when the bypass line (port 2) is blocked.

The three SAE 10 sized ports are labeled by number:

- 1 - Inlet
- 2 - Bypass (can be plugged for closed center configuration)
- 3 - Regulated Flow



PERFORMANCE

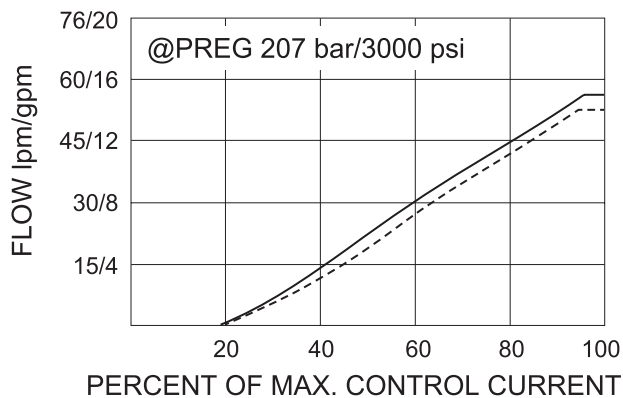
Flow vs. Current

Input Flow: 76 lpm/20 gpm

12V Coil; 110 Hz PWM

3-Ported — ; 2 Ported - - - -

32 cSt/150 ssu oil at 40°C



RATINGS

Operating Pressure	Inlet - 240 bar (3500 psi) Ports 2 and 3 - 207 bar (3000 psi)
Regulated Flow Rate	Bypass Blocked - 53 lpm (14 gpm) Bypass Open - 57 lpm (15 gpm)
Maximum Input Flow	Bypass Open - 114 lpm (30 gpm)
Internal Leakage	.38 lpm (0.1 gpm) fully closed at 207 bar (3000 psi)
Electrical	12 VDC Threshold Current 350 ± 100 mA Max. Current 1600 ± 200 mA

MANUAL OVERRIDE

To operate the valve manually, remove the cover on top of the cartridge assembly using a 1 1/16" wrench. The knurled stem on top should be turned counter-clockwise against the stop for normal operation of the PWM cartridge. To adjust the hydraulic oil flow, turn the stem clockwise until the desired motor RPM is achieved.

TROUBLESHOOTING

To test the electrically-variable shift of the spool, remove the manual override cover on top of the cartridge assembly using a 1 1/16" wrench. At the controller, set the system for maximum output. While holding your finger firmly on the top of the cartridge assembly, toggle the valve control signal on and off. You should feel the spool shift slightly, about .040". To test the solenoid resistance, remove the cable from the connector at the solenoid exposing the terminals. Measure the resistance across the terminals. The reading should be approximately 4.0 ohms.