V9500

2-Way Modulating Control Solenoid Valve

DESCRIPTION

The series 9500 are 2-way, direct acting modulating control valves featuring a proportional actuator assembly. They are available with plug-in or custom body designs, in normally closed and normally open configurations. The actuator component of the valves is electromagnetic and consists of an armature suspended on flexural members in the core of a coil winding. A current signal to the solenoid will move the armature in an axial direction, in proportion to the amplitude of the current signal. Any measuring device such as a pressure transducer or a position indicating LVDT can amplify the signal input. There is no mechanical hysteresis or friction present; the only hysteresis loop generated is the variable residual magnetic force of the iron path. The actuator is constructed to provide axial displacement of the armature in linear proportion to the current input. The valve can be initially open or closed. With constant inlet pressure on the poppet, the armature/ poppet element can be biased to compensate for the pressure force.

APPLICATION

The valves are applicable to all common liquid and gas systems requiring modulation of flow in response to a milliamp signal. They are used in aircraft engine, fuel control and electronic cooling systems, and function as pilot valves to control larger valves for environmental control systems.

FEATURES

- Variable orifice
- Initial flow externally adjustable with a manual screw
- Proportional linearity of flow versus current
- Materials contacting the fluids are 430 and 303 stainless steel and Viton
- Coil conforms to MIL-S-4040, magnetic wire meets FED STD J-W-1177
- Coils are vibration, shock and moisture resistant

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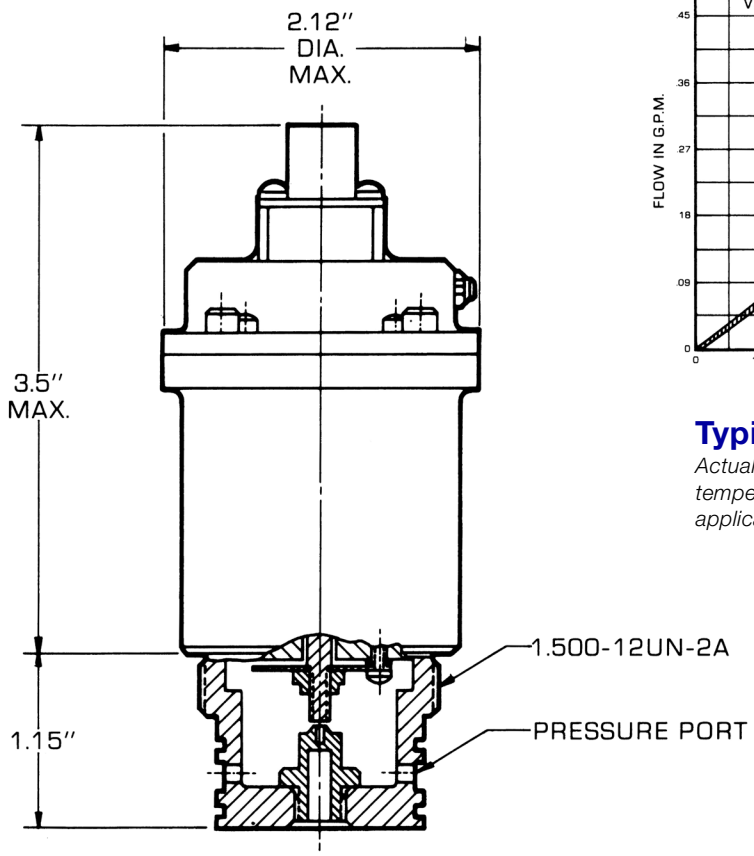

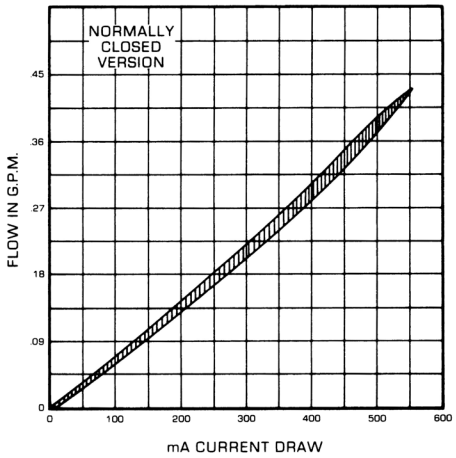

Typical Flow Graph

Actual Curves depend on pressure differential, ambient temperature, etc. For actual ratings relative to specific applications, contact factory.

Specifications

Temperature	-65°F to +165°F (Ambient) -65°F to +350°F (Fluid)
Flow	0 to 380 lbs./hr at 200 PSID (proportional to current input)
Operating Pressure	0 to 750 PSIG
Proof Pressure	1125 PSIG
Burst Pressure	1875 PSIG
Weight	1.6 lbs (approx.)

Electrical Data

Current	0 to 500 milliamps analog or pulse width digital modulation accuracy (±3% frequency) 2KHZ, typical