



ITT

Aerospace Controls

Fast Response Solenoid Valve



Features

- Lightweight and rugged
- Pneumatic and hydraulic operation
- Substantially less expensive and lighter than competing PWM servo systems
- Cartridge design allows easy mounting in pressure manifold -- threaded housing design also available
- Variety of flow and pressure ratings available
- Industry-standard endurance tolerance
- Two- and three-way versions available

The Fast Response Solenoid Valve from ITT Aerospace Controls offers precision rate control of fluids in a line at a lower cost than similar systems in the same service.

Featuring a poppet design, to be used in pulse width modulation (PWM), allows ITT to set valve operations up to 100 Hz per second. Since the normal (unenergized) position of the poppet is closed, increasing the proportion of time the valve spends open increases flow accordingly. Linear flow control can be achieved by varying the width of the electrical pulsing signal driving the valve if constant pressure drop is maintained across the valve's inlet and outlet ports.

The variable pulse rates up to 100 Hz provides immediate response to a change in flow requirements.

Regulation of pressure in a pilot space can be achieved by setting two fast response solenoid valves in series. An application of this inlet-outlet configuration for industrial pressure regulators or missile fin controls would result in maintaining extremely tight load tolerances.

Housed in a cartridge design, single piece casing, the ITT solenoid valve can be easily mounted into a flow manifold fitted with inlet and outlet ports. Other configurations allow threaded port connections