

3-WAY REDUNDANT SOLENOID VALVE

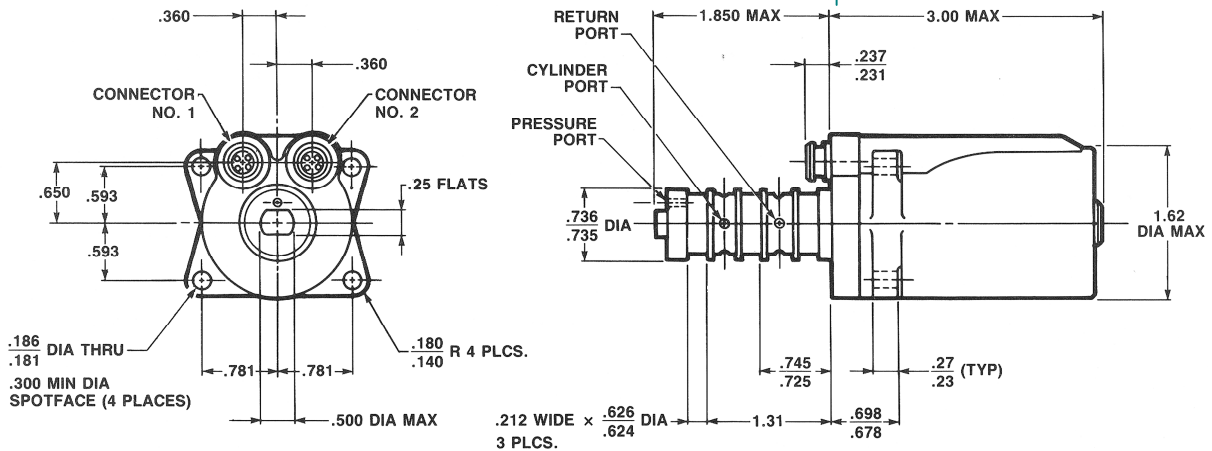
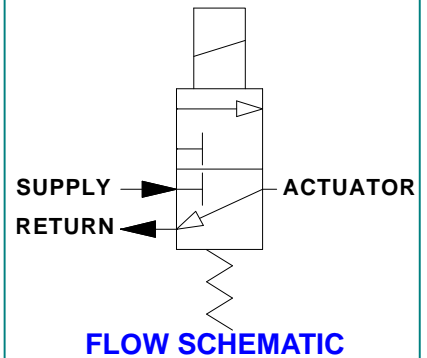
MULTI-COIL, DIRECT-OPERATED SOLENOID VALVE FOR FUEL CONTROL OR HYDRAULIC ACTUATION

COMPONENT FEATURES

- Flight qualified in multiple configurations
- Multiple coils provide for pilot & redundant electronic control
- Dual connectors for electrical isolation
- Ball & seat sealing for low leakage ~ 4 cc/minute
- Vacuum potted, continuous duty coils for long service life
- Constructed of corrosion & fuel resistant materials
- Specially configured to the requirements of each system
- Porting, manifold, and mounting flexibility

SPECIFICATIONS

- 1.0 Valve Type: Three Way, Four Coil Solenoid Valve
 2.0 Configuration: Direct Operated, Normally Closed
 3.0 Media: MIL-H-83282 Hydraulic Fluid
 4.0 Pressure
 4.1 Operating: 3,000 psig [208 bar]
 4.2 Proof: 4,500 psig [311 bar]
 4.3 Burst: 7,500 psig [518 bar] (min)
 5.0 Temperature
 5.1 Ambient: -65°F to +160°F [-54°C to 71°C]
 5.2 Media: -65°F to +275°F [-54°C to 135°C]
 6.0 Flow Rate: 0.36 gpm @ 150 psid [1.4 lpm @ 11.3 bar] (min)
 7.0 Seat Leakage: 4 cc/min (max)
 8.0 Electrical
 8.1 Pull-in: 13 vdc (min) @ 70°F [21°C] applied to any (2) coils
 8.2 Drop-Out: 2 vdc (max) @ 70°F [21°C] de-energizing all (4) coils
 8.3 Resistance: 120 Ohm (min) @ 70°F [21°C] for each coil
 8.4 Duty Cycle: Continuous
 9.0 Response Time: 12 msec (mechanical)
 10.0 Weight: 1.58 Lb (0.72 Kg)



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1237 NORTHSIDE BOULEVARD • SOUTH BEND, IN 46615

TEL+1.574.234.3157 • FAX+1.574.234.3948 • WEB WWW.SBCONTROLS.COM

BULLETIN SV-301

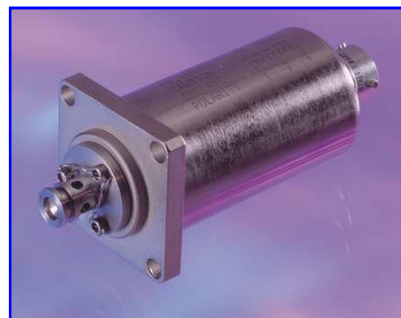
3-WAY REDUNDANT SOLENOID VALVE TECHNOLOGY

- Metal-to-metal poppet/seat orifices with only 4 cc/min leakage at 3000 psi
- Four coil redundancy – energize any two coils for operation
- Integral radio frequency noise suppression diodes
- Potted solenoid assembly
- Integral wire mesh filter screen to prevent larger particulate contamination
- Corrosion resistant wetted surfaces
- Static seals are compatible with MIL-H-83282 hydraulic oil

Supply pressure is applied to the end of the valve housing. In the de-energized mode, supply pressure is blocked and the cylinder port is connected to return. When energized, the return port is blocked and pressure is ported to the cylinder.

The above unit is used in a Turbine Engine Fuel Control Manifold to divert pressure to a two position, spring-biased, piston type actuator. Common applications include thrust reverser actuation, overspeed protection, main fuel shutoff, and emergency shutdown. Other types of porting are possible and normally closed versions (control open to return, de-energized).

Related products: 3-way Solenoid Valve (left – SV-313) for flight actuation and 2-Way Latching Solenoid Valve (right – SV-316) for primary fuel shutoff.



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