



Valcor Nuclear

High Flow Air Pilot Valve

3-Way, Pilot Assisted, Compact Size Solenoid
Model V70900-99



DESCRIPTION

Valcor Nuclear has created this compact size and low weight 3-way, internally piloted, nuclear-qualified solenoid valve, to be used primarily as a pilot operator on large control valves in nuclear power plants.

It has been designed specifically to prevent the chronic operational problems, associated with conventional solenoid valves currently installed in many PWR, BWR and CANDU plants.

Valcor Model V70900-99 is ideal for use in a host of safety-related, high flow solenoid valve applications. The principal function is pressurizing and venting pneumatic diaphragm actuators, air cylinders under extremely harsh environmental conditions.

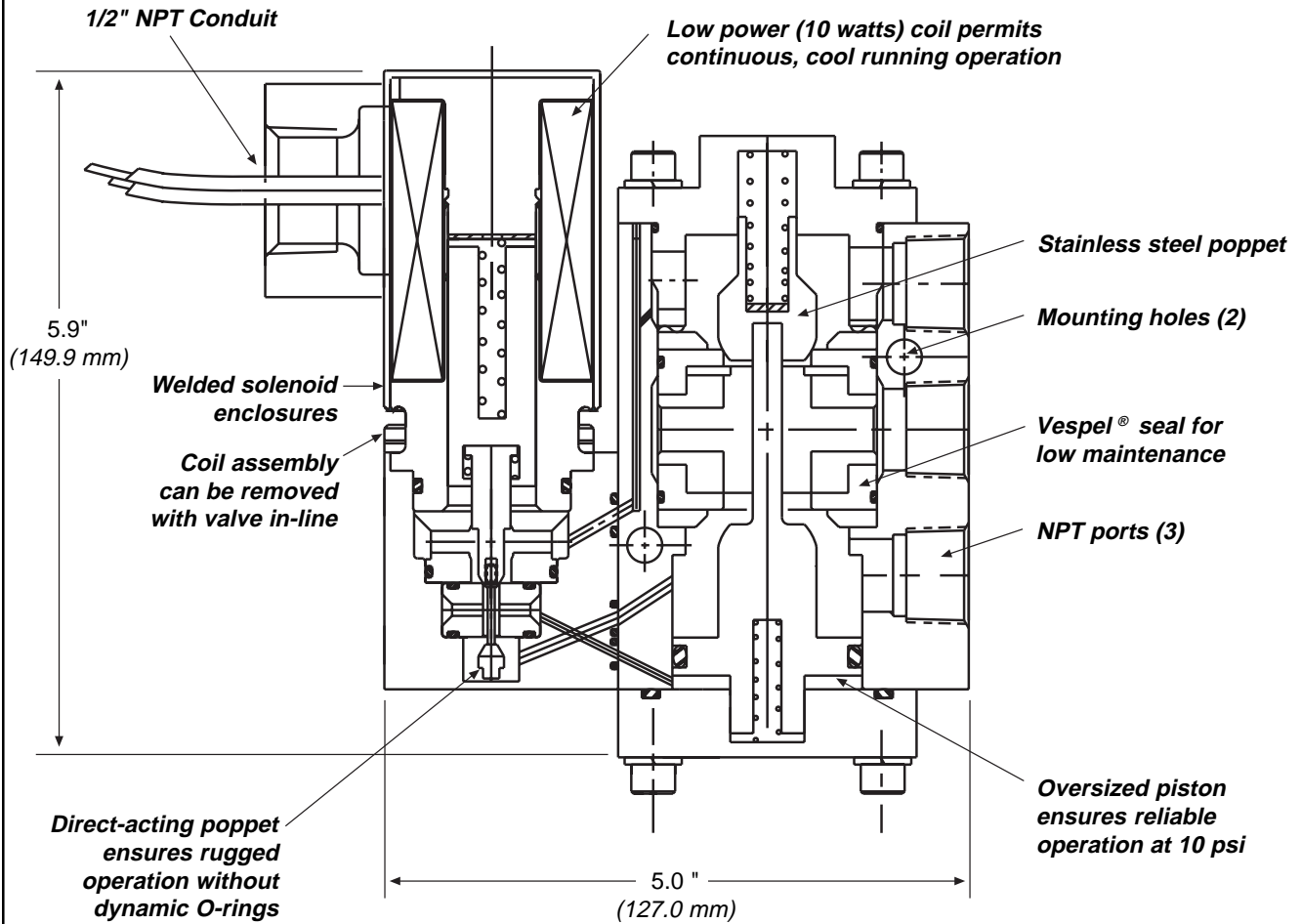
This is suitable for control rod drive (CRD) applications in certain boiling water reactors (BWR) plants currently using single coil solenoid valves. These valves may also be used on compressors and turbines.

It's single coil design is both highly reliable and adaptable. Its versatility offers significant improvements for a variety of applications and configurations, including 2-way (*one port plugged*) and normally closed, with AC or DC voltages. Ten (10) psi minimum operating pressure differential is required, however, the valve vents to zero (0) psi.

THE V70900-99 INCORPORATES THESE OUTSTANDING FEATURES

- Compact size, low weight and rugged construction are special characteristics; can replace outdated valves in most cases
- 1/2" NPT is standard; also available in 3/4", 1" and 2" line size
- Optional configuration available, using mounting brackets and side-faced port connections
- Internal flow path sealing by stainless steel poppets on Vespel® polyimide seats
- Available in aluminium, forged brass or stainless steel body material
- Solenoid enclosure is all stainless steel, seal welded construction for NEMA-4, -7 compliance (*Water tight and explosion proof*)
- Class H Insulation
- Coil requires less than 10 watt power; cool running/potted design
- Powered with 48 VDC; 120 VAC/125 VDC, or other voltage options also available
- Can be mounted in any attitude
- Maintenance-free. Coil replacement in the field can be made without disturbing in-line piping
- Designed for continuous duty up to 150°F (66°C) ambient
- Qualified life - 40 years for coil & 10 years for O-rings

**OUTLINE DIMENSIONS
MODEL V70900-99**



TYPICAL SPECIFICATIONS

Fluid: Air/Inert Gas
 Size: 1/2" NPT (available up to 2")
 Operating Pressure: 10-150 psig (0.7-10.3 bar)
 Operating Temperature: 150°F (66°C)
 Flow, C_v: 1.2 up to 45
 Leakage, per MSS-SP-61: 25 sccm @ 150 psig (10.3 bar)
 (Bubble tight at factory)
 Voltage: 98-136 VAC/90-140 VDC/
 48 VDC
 Power 10 Watts
 Response Time: 100 m-sec
 Weight: 12 lbs. (5.5kg) for brass



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