

# Precision Solenoid Valves



# Solenoid Valves for gas

## General Purpose Valves



### Features

- High Pressure and Flow Capacity
- Bubble Tight Shut-Off
- 3-Way 2-Position, 2-Way Normally Closed or 2-Way Normally Open

### Electrical

12, 24, 115 VDC & 115, 220 VAC

### Body Materials

Aluminum, Brass, 303 Stainless Steel

### Options

Manual Override, Position Indicator, DIN electrical connection, and 24" long pigtails

### Connections

Female Pipe NPT, Female Tube AND, AS4395 (MS33656)

### Operating Ranges

Up to 6,000 PSIG

### Seat Materials

Kel-F, Nylatron, and Polyimide

### Seat Materials

Viton A, Buna N, Neoprene, Ethylene Propylene, and Fluorsilicone

Flow Capability	SV10-17	SV20-27	SV30-37	SV431-37	SV461-465
Cv	.096	.096	.46	.80	.64
ESEOD	.07	.07	.16	.215	.19

Application history includes Space, Aviation and Military weapon systems.

## Specialty Solenoid Valves

Didn't see what you're looking for? Let us review your requirements and chances are we can help solve your component and/or system needs. We also make Latching Solenoid valves, Cryogenic Solenoid valves and Ultra High pressure Solenoid valves.

# & liquid service



## Coaxial Solenoid Valves

- Direct-acting solenoid valve with a coaxial flow pattern
- 2-way shutoff, normally open or normally closed.
- Suitable for most fluids and gases.
- Compact and lightweight design.
- Designed to meet exacting customer requirements with regard to voltage, line sizes, pressures and performance characteristics.
- Aviation flight and weapon system history.



## Gate Solenoid Valves

- Direct-acting solenoid valve with a gate type design.
- 2-way shutoff, normally open or normally closed.
- Suitable for most fluids and gases.
- Bi-directional flow capable.
- Low pressure drop.
- Suitable for contaminated liquid systems.
- Aviation flight history.



## Four Way and Manifold Valves

- 4-way 2 position and 4-way 3 position direct-acting poppet designed.
- Manifold systems incorporating any desired feature including filters, pressure regulators, solenoid, bleed, manual shutoff, check, relief valves, pressure transducers or just about anything else you may need.
- Manifolds can reduce weight and size of the overall systems.
- Manifold systems enable the components to be serviced, repaired or replaced without disturbing the plumbing connections.
- Suitable for most fluids and gases.
- Available in a wide variety of voltages, duty cycles and connections.



## Cartridge Solenoid Valves

- 2-way and 3-way configurations with either normally open or normally closed flow patterns.
- Designed for integration into manifold systems.
- Provide products that have a smaller package and lighter weight than the inline products.
- Application history in weapons systems, aviation and industrial hydraulic/pneumatic systems.



## Pilot Assisted Solenoid Valves

- Fast acting response with total opening or closing times as short as 8 milliseconds.
- 2-way normally closed configuration.
- High flow characteristics where the valve orifice is larger than the port size, permits full flow with very low pressure drop.
- Space flight and weapon system application history
- Suitable for most fluids and gases.
- Available in a wide variety of voltages, duty cycles and connections.

## Over 50 Years Of Dependability

Quality counts at Circle Seal Controls — and it always has. Reliable products and responsive service that set industry standards are the cornerstones of our business. As a result, we welcome each new program as an opportunity to move these bench marks of excellence ever forward.

Behind each Circle Seal Controls' product is a heritage of excellence dating back to 1947 when the company was founded as James-Pond-Clark. The fledgling firm developed and marketed its first innovation: a check valve that utilized a floating O-ring to provide a dead-tight seal. Shortly thereafter, the company's problem-solving skills came to the aid of the aircraft industry with a zero-leak check valve for fuel systems.

Ongoing investments in state-of-the-art equipment and skilled personnel have helped Circle Seal advance its leadership position. Realizing that people are our greatest asset, we sponsor training and skill development programs at all levels of the organization. The result is a demonstrated ability to provide our customers with the best quality available across a full array of valves and controls.

## SOLENOID VALVE SPECIFICATION CHECKLIST

Date \_\_\_\_\_

Co. Name \_\_\_\_\_

Address \_\_\_\_\_

Contact \_\_\_\_\_ Tel. ( ) \_\_\_\_\_

Fax ( ) \_\_\_\_\_ E-mail address \_\_\_\_\_

1. Application \_\_\_\_\_

2. Normally Open \_\_\_\_\_ Closed \_\_\_\_\_ Type of valve 2 3 4 way \_\_\_\_\_

3. Maximum Operating Pressure \_\_\_\_\_ Is There System Back Pressure \_\_\_\_\_

4. Ambient Temperature: Max \_\_\_\_\_ °F Min \_\_\_\_\_ °F

5. Fluid Temperature: Max \_\_\_\_\_ °F Min \_\_\_\_\_ °F

6. System Media(s) \_\_\_\_\_

7. Power Requirements: Min/Max operating Voltage \_\_\_\_\_ AC \_\_\_\_\_ DC \_\_\_\_\_

\_\_\_\_\_ Amps \_\_\_\_\_ Max. Drop \_\_\_\_\_ Min. pull-in \_\_\_\_\_

8. Duty Cycle: Continuous \_\_\_\_\_ Intermittent \_\_\_\_\_

\_\_\_\_\_ Max. OnTime \_\_\_\_\_ Min. Off Time \_\_\_\_\_

9. Life Expectancy In Cycles \_\_\_\_\_ Actuation/Deactuation Time (If Req.) \_\_\_\_\_

10. Allowable Internal Leakage \_\_\_\_\_

11. Flow Rate (Min.) \_\_\_\_\_ SCFM/GPMat Maximum Pressure Drop \_\_\_\_\_

12. Materials: Body \_\_\_\_\_ Trim \_\_\_\_\_ Seal \_\_\_\_\_

13. Line Connection: Size/Type \_\_\_\_\_

14. Receptacle (MS/DIN) \_\_\_\_\_ Conduit \_\_\_\_\_ Pigtail in Inches \_\_\_\_\_

15. Envelope Requirements L \_\_\_\_\_ W \_\_\_\_\_ H \_\_\_\_\_

16. Mounting Requirements \_\_\_\_\_

17. Maximum Weight \_\_\_\_\_

18. Units Must Meet the Following Specifications \_\_\_\_\_

19. Desired options: Manual override \_\_\_\_\_ Position indication \_\_\_\_\_

\_\_\_\_\_ Other \_\_\_\_\_

20. Quantity Required: Now \_\_\_\_\_ Yearly \_\_\_\_\_ Per System \_\_\_\_\_

21. Target Price \_\_\_\_\_





### **Growing With Our Customers**

In response to customer needs, Circle Seal Controls has expanded substantially over the years. Our new facility in Corona, California is specifically designed to meet the specialized requirements of valve and regulator manufacturing.

### **Proven Engineering Expertise**

Building on a problem-solving heritage that dates back to 1947, Circle Seal Controls' highly skilled engineering team expertly translates concepts into producible working designs.

Manufacturing, quality, customer requirements and



cost controls are guiding principles in product design.

### **On-Time, On Target Manufacturing**

Circle Seal Controls' state-of-the-art manufacturing department serves as a cornerstone of our total quality program. Continuous improvement provide for the highest level of customer service in the valve industry.

### **Growing With Our Customers**

The quality of products and services at Circle Seal Controls is governed by adherence to methods of Statistical Process Control (SPC), and compliance to our ISO 9001 certified quality program.



Certified to ISO 9001

**CIRCLE SEAL CONTROLS, INC.**

A **CIRCOR** International company

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