

# SOLENOID VALVES



SV SERIES SOLENOID VALVES

Engineering Creative Solutions for Fluid Systems Since 1901

#### FEATURES & BENEFITS

#### DESCRIPTION

SV series solenoid valve is a complete range of valves designed according to NAMUR VDI/VDE 3845 and made of epoxy coated anodized aluminum. Each solenoid valve is field interchangeable for use on either double acting 4-Way or spring return 3-Way actuators and is available in single coil, dual coil, or 3-position configuration (open centers, closed centers, or center in pressure).

#### MANUAL OVERRIDE

Each SV solenoid valve comes standard with a lockable manual override. This is an important feature because it allows the solenoid valve to be used manually in case of electrical failure, or for quick cycle testing.

#### STANDARD CONFIGURATION

The Pratt Industrial SV series solenoid valve features an anodized aluminum spool, easy to use manual override, and comes standard as 4-Way (Double Acting) with an optional adapter plate for 3-Way (Spring Return) field conversion.

#### NAMUR MOUNTING

Each SV series NAMUR mount solenoid valve is available in a single coil version (SV61 or SV63), dual coil (SV62), open centers (S36A), and closed centers (S36C).

#### HAZARDOUS LOCATION OPTIONS

The SV series NAMUR mount is available in various explosion proof configurations for hazardous locations. There are single coil and dual coil options available.

## AIR INLET/EXHAUST PORT CONNECTIONS

All SV solenoid valves comes with 1/4" NPT air inlet and exhaust connections. This standard connection allows for ease in connecting all airlines and retrofitting each solenoid valve with the proper speed control or muffler.

#### AIR SERVICE

Pratt Industrial solenoid valves can be used with lubricated or non-lubricated air. It is recommended that the Pratt Industrial MAFRL1N14 filter regulator be used to keep the air quality clean which will extend the life of the solenoid valve.





Ask about the certifications available. Call our sales team at 620-208-8100 for more details.



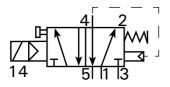
## **SV61 & SV63 ORDINARY LOCATIONS**

## **DESCRIPTION**

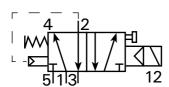
The SV61 and SV63 solenoid valves are a compact IP65 rated NAMUR mount solenoid valve that is lightweight and easy to use. This light-weight, compact solenoid offers a standard manual override and comes as a standard 4-Way with easy conversion to a 3-Way for spring return (single-acting) applications.



# **LEFT PILOT SV61**



# **RIGHT PILOT SV63**



## **TECHNICAL DATA**

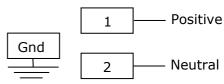
| Maximum Pressure  | 0-120 PSI  |  |
|-------------------|--|--|
| Area Protection   | IP65   |  |
| Standard Seals    | BUNA-N (VITON® Optional)                                     |  |
| Temperature Range | STD BUNA-N -4°F to 158°F<br>VITON® 0°F to 250°F/300°F cyclic |  |
| Coil              | Class F 100% Extended Duty<br>(Class H Optional)             |  |
| Cv                | 1.1  |  |

# **COIL ELECTRICAL RATING**

| Voltage         | Maximum Watts | Tolerance |
|-----------------|---------------|-----------|
| 120 VAC         | 6.9W          | ± 10%     |
| 24 VDC          | 6.9W          | ±10%      |
| 12VDC/24VAC     | 6.9W          | ±10%      |
| 230 VAC/125 VDC | 6.9W          | ±10%      |

<sup>\*</sup> Other voltages available. Please call 620-208-8100 for details.

# WIRING DIAGRAM



The above wiring diagram is the same for all the voltages

# **MATERIAL**

| Item                         | Material        |
|------------------------------|-----------------|
| Box                          | Technopolymer   |
| Brackets                     | Technopolymer   |
| Position Indicator           | Technopolymer   |
| Fasteners                    | Stainless Steel |
| Seals                        | BUNA-N          |
| Operating Shafts             | Technopolymer   |
| Cams                         | Technopolymer   |
| Microswitches                | Technopolymer   |
| Electrical Board<br>w/Clamps | Polyamide       |

# SV71 & SV73 INTRINSICALLY SAFE

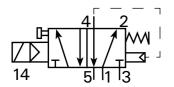
## **DESCRIPTION**

The SV71 and SV73 solenoid valves are a compact, light-weight solenoid that can be used in intrinsically safe applications. It is important to note that a proper safety barrier needs to be used in conjunction with the solenoid valve. Solenoids come standard with both 3-Way and 4-Way field conversion kits.

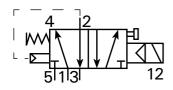
Compatible barriers to use are Pepperl & Fuchs KFD2-SL2-Ex2 and KFD2-SD-Ex 1.36.



## **LEFT PILOT SV71**



# **RIGHT PILOT SV73**



# AREA CLASSIFICATIONS

| Class | Group      |  |
|-------|------------|--|
| I     | A, B, C, D |  |
| II    | E, F, G    |  |
| III   | Division 1 |  |

## **TECHNICAL DATA**

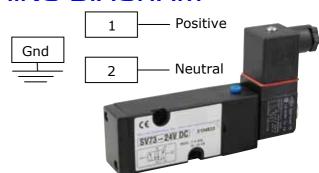
| Maximum Pressure  | 0-120 PSI  |  |
|-------------------|--|--|
| Area Protection   | Intrinsically Safe   |  |
| Standard Seals    | BUNA-N (VITON® Optional)                                     |  |
| Temperature Range | STD BUNA-N -4°F to 158°F<br>VITON® 0°F to 250°F/300°F cyclic |  |
| Coil              | Class F 100%<br>Extended Duty                                |  |
| Cv                | 1.1  |  |

# **COIL ELECTRICAL RATING**

| Voltage | А     | Max   | l≤    | P≤   |
|---------|-------|-------|-------|------|
| 24 VDC  | 0.05A | 28VDC | 115mA | 1.6W |

Ask about the certifications available. Call our sales team at 620-208-8100 for more details.

# WIRING DIAGRAM



# MATERIAL

| Item          | Material                                 |
|---------------|--|
| Body          | Powder Epoxy Coated<br>Extruded Aluminum |
| Spool         | Anodized Aluminum                        |
| Spring        | Stainless Steel                          |
| O Ring        | BUNA-N<br>(VITON® Optional)              |
| DIN Connector | Technopolymer                            |

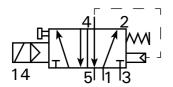
## SV91 & SV93 EXPLOSION PROOF

## **DESCRIPTION**

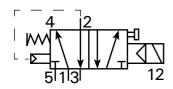
The SV91 and SV93 solenoid valves are a compact, light-weight solenoid that can be used in explosion proof applications. These solenoids come standard with Class H coils and both 3-Way and 4-Way field conversion kits.



# **LEFT PILOT SV91**



# **RIGHT PILOT SV93**



# AREA CLASSIFICATIONS

| Class               | Group      |  |
|---------------------|------------|--|
| I                   | A, B, C, D |  |
| II                  | E, F, G    |  |
| III                 | -          |  |
| Ex m II T4 & Div. I |            |  |

# **TECHNICAL DATA**

| Maximum Pressure  | 0-120 PSI  |  |
|-------------------|--|--|
| Area Protection   | Explosion Proof  |  |
| Standard Seals    | BUNA-N (VITON® Optional)                                     |  |
| Temperature Range | STD BUNA-N -4°F to 158°F<br>VITON® 0°F to 250°F/300°F cyclic |  |
| Coil              | Class F 100%<br>Extended Duty                                |  |
| Cv                | 1.1  |  |

# **COIL ELECTRICAL RATING**

| Voltage | Hz | In Rush | Holding | Tolerance |
|---------|----|---------|---------|-----------|
| 110 VAC | 50 | 12.5VA  | 7.5VA   | ± 10%     |
| 120 VAC | 60 | 11.5VA  | 6.5VA   | ± 10%     |
| 24 VDC  | -  | 4.5W    |         | ± 10%     |



# **MATERIAL**

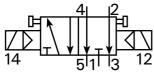
| Item   | Material                                 |
|--------|--|
| Body   | Powder Epoxy Coated<br>Extruded Aluminum |
| Spool  | Anodized Aluminum                        |
| Spring | Stainless Steel                          |
| O Ring | BUNA-N<br>(VITON® Optional)              |

# **DUAL COIL SOLENOID VALVES**

## **DUAL PILOT**

The SV62 NAMUR mount solenoid valve is a cost effective dual coil solenoid valve. These solenoid valves are offered as dual coil IP65 (SV62), dual coil explosion proof (SV92), and dual coil intrinsically safe (SV72).





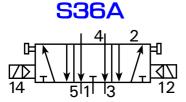


**Dual Coil Solenoid Valves** for Special Applications

# **OPEN CENTERS**

The S36A open centers solenoid valve is a specially designed solenoid valve made for double acting actuators in three position applications.

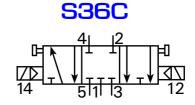






# **CLOSED CENTERS**

The S36C closed centers solenoid valve is a specially designed solenoid valve made for spring return actuators in three position applications. During the mid position, the air is trapped inside the solenoid valve, keeping the springs from decompressing and keeping the actuator open or in a semi-open position.



## OPTIONS



#### **BLACK MOLDED DIN CONNECTOR** WITH FLYING LEADS

Our black molded DIN connectors with flying leads offer easy wiring for quick assembly. These are rugged by design and come with a BUNA-N gasket making them IP65 rated.



#### **CLASS H COILS**

Class H Coils are offered for the SV61/63 solenoid valves. These offer an elevated maximum temperature for the coil for high temperature applications. The class H coil accommodates temperatures to 140°F.



#### PNEUMATIC PILOT VALVES





#### FLOW CONTROL PLATES



#### LIGHTED DIN CONNECTORS

Lighted DIN connectors offer clear housings, two poles with ground, 1/2" NPT or PG9 conduit connections. These DIN connectors allow for easy verification if the solenoid coil is energized or deenergized. Each lighted DIN connector is available with flying leads which allow for easy wiring.



\* Various lengths offered



#### **IP67 WATERTIGHT KIT**

Pratt Industrial Technology offers a seal kit that when used, increases the IP rating from IP65 to IP67. This is useful where solenoid valves are exposed to excessive water conditions. The kit consists of a thermoset encapsulated coil, three o-rings, side exhaust coil nut, and a molded black DIN connector with a 36" lead.

#### SPEED CONTROLS

Pratt Industrial offers NPT brass and stainless steel speed control mufflers for solenoid valves. These are needed for exhaust ports on solenoid valves to control the opening and closing speed

of the valve assembly.



#### **MUFFLERS**

Pratt Industrial offers NPT brass and stainless steel mufflers for solenoid valves. These are needed to help reduce the noise of exhausting air when a solenoid valve\_actuates.

These can also be installed in the exhaust port of an actuator for spring return applications.





# **Pratt Industrial**

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