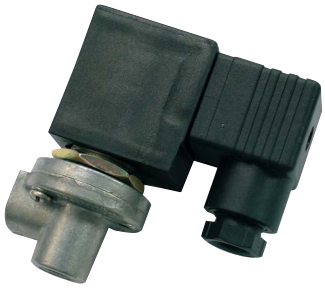
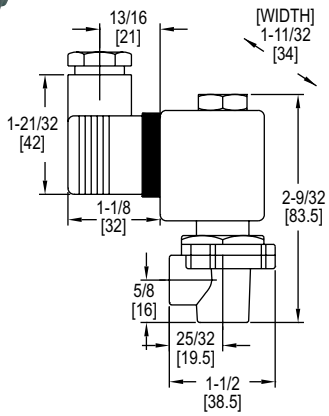
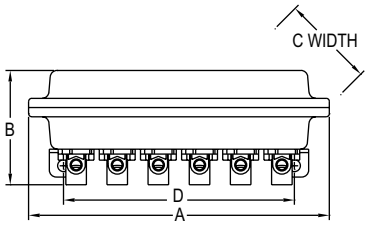
Series RSV Pilot Solenoid Valve and Series SVE Solenoid Valve Enclosure

Specifications - Installation and Operating Instructions

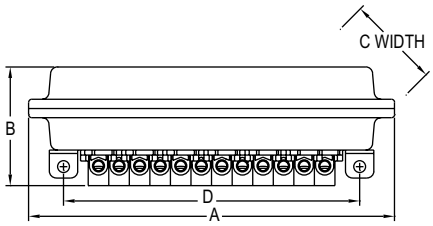




SVE06WP61



SVE06WP61



Model	A [mm]	B [mm]	C [mm]	D [mm]
SVE06WP61	10-5/8″ [270]	4-11/64″ [106]	6-5/16″ [160]	9-7/32″ [234]
SVE12WP121	18-29/32″ [480]	4-11/64″ [106]	6-5/16″ [160]	17-9/16″ [446]

The **Series RSV Pilot Solenoid Valve** is used to operate the Series RDCV remote type diaphragm valve. Series RDCV does not include an integral solenoid and needs to be activated remotely. The RSV can drive all size diaphragm valves. The units can be bought separately for mounting in a panel or can be purchased mounted on our SVE enclosure. Consult factory for mounting of RSV valves with our DCT timer boards together in one enclosure all pre-wired.

The **Series SVE Solenoid Valve Enclosures** are multi-valve enclosures for the RSV pilot valve. The SVE offers a convenient weatherproof enclosure package with all solenoids pre-wired to a terminal block. Enclosures are available in 6 or 12 valve size with choice of pilot valve voltage.

MODEL CHART

Model	Voltage	Electrical Connections	Cv
RSV1D	110 VAC	DIN	.33
RSV2D	220 VAC	DIN	.33
RSV3D	24 VDC	DIN	.33
RSV1L	110 VAC	Wire Leads	.33
RSV2L	220 VAC	Wire Leads	.33
RSV3L	24 VDC	Wire Leads	.33

MODEL CHART

Model	Quantity of Solenoid	Enclosure Type	Voltage
SVE06WP61	6	Weatherproof	110 VAC
SVE06WP62	6	Weatherproof	220 VAC
SVE06WP63	6	Weatherproof	24 VDC
SVE12WP121	12	Weatherproof	110 VAC
SVE12WP122	12	Weatherproof	120 VAC
SVE12WP123	12	Weatherproof	24 VDC

RSV SPECIFICATIONS

Service: Compatible gases, filtered and oil free.
Wetted Materials: Body: aluminum; Core and spring: 304 SS; Seals: NBR.
Pressure Limits: Minimum of 4.4 psi (0.3 bar), maximum of 124.7 psi (8.6 bar).
Temperature Limits: Ambient: -4 to 122°F (-20 to 50°C); Operating: -4 to 185°F (-20 to 85°C).
Power Requirements: 110 VAC, 220 VAC, or 24 VDC.
Power Consumption: 12 W, inrush: 17 VA, holding: 14.5 VA.
Enclosure Rating: NEMA 4X (IP65).
Electrical Connection: DIN connection or wire leads, 18 AWG, 22″ (55 cm) long.
Process Connection: 1/8″ female NPT.
Mounting Orientation: Any position.
Weight: 0.60 lb (0.27 kg).
Pneumatic Tube Length: Maximum of 9.8 ft (3 m).

SVE SPECIFICATIONS

Service: (For RSV) Compatible gases, filtered and oil free.
Wetted Materials: (For RSV) Body: aluminum; Core and spring: 304 SS; Seals: NBR.
Pressure Limits: (For RSV) Minimum of 4.4 psi (0.3 bar), maximum of 124.7 psi (8.6 bar).
Temperature Limits: Ambient: -4 to 122°F (-20 to 50°C); Operating: -4 to 185°F (-20 to 85°C).
Power Requirement: (For RSV) 110 VAC, 220 VAC, or 24 VDC.
Power Consumption: (For RSV) 12 W, inrush: 17 VA, holding: 14.5 VA.
Enclosure Rating: NEMA 4X (IP65).
Enclosure Material: Anodized aluminum with NBR gasket.
Electrical Connection: All RSV are pre-wired to a terminal strip.
Process Connection: (For RSV) 1/8″ NPT female. (Consult factory for 1/4″ NPT).
Conduit Connection: 3/4″ NPT female.
Mounting Orientation: Any position.
Pneumatic Tube Length: Maximum of 9.8 ft (3 m).

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INSTALLATION

⚠ WARNING When working on the Actuator/Valve assembly, disconnect the air or power supply to the actuator. Spring return actuators/valves may change position if power fails or is removed. Never insert any object or body part into the valve body. Severe injury may occur.

⚠ WARNING Before installation make sure all air pressure has been released, electric power has been turned off, and air pressure source has been closed. Turn power on and increase pressure only after installation is completed.

LOCATION

Select a location that will not exceed the ambient temperature specifications of the valve. The system must be located in an enclosure that meets relevant safety standards and electrical codes of the environment.

MOUNTING

1. Disassemble RSV solenoid valve by removing top nut and washer. Remove solenoid body and finally remove lower nut.
2. Make a hole in the panel that is .76 to .81″ (19.5 to 20.5 mm) in diameter. (Panel thickness can be from .04 to.15″ (1 to 4 mm)).
3. Place valve body/tube through the panel hole from the outside and tighten down lower nut onto the body threads from the inside.
4. Replace solenoid and washer. Tighten down with top nut to hold down the solenoid.

The RSV can be mounted in any position. For optimum life and performance it is recommended that the unit be mounted vertically and upright to reduce the chance of foreign matter accumulating in the valve. For weatherproof applications it is recommended the cable gland be positioned face down to avoid possible rainfall or water from entry.

PNEUMATIC CONNECTIONS

Verify that the supply pressure is within the required specification. Do not turn on the system before installation is complete. Make sure that there is no dirt or other particulates between the RDCV diaphragm valve and the connections of the RSV, remote solenoid valve, which would cause a restriction of airflow. There should be no condensed water in the piping. The use of a filter may be required to avoid this problem. Leak testing should be done prior to installation only.

WIRING CONNECTIONS

Wire in accordance with the National Electrical Code and local regulations.

RSV

To aid in the wiring, the solenoid on the RSV may be rotated 360°. Prewired models come standard with 22″ (55 cm) of 18 AWG wire. For unwired models it is recommended to use 18 AWG copper wire rated at 90°C or greater.

Wiring the RSV with DIN connector.

1. Remove center screw and pull connector cover from the body.
2. Remove gasket and place small screw driver in slot to pry out the terminal block from the cover.
3. Thread wire through the gland nut, gland gasket, washer and connector cover.
4. Connect wires to proper terminals on the terminal block.
5. Snap terminal block back into the cover. The connector cover may be rotated in 90° increments to position the cable entry as needed for the application. Reinstall the center screw and screw back into the solenoid body.

Wiring the SVE

The SVE comes from the factory with the RSV solenoids wired to a terminal block. Connect 18 AWG copper wire rated at 90°C or greater to the screw terminal block. Ground screw is provided on the terminal block. The enclosure has a 3/4″ NPT female conduit connection. When wiring is complete reinstall cover making sure that the gasket is in place. Tighten all screws in a crisscross manner.

MAINTENANCE

⚠ WARNING To prevent the possibility of death, serious injury or property damage, turn off electrical power, depressurize system and unit, and vent fluid to a safe area before servicing.

The RSV should be cleaned periodically. The amount of time between cleanings depends on the application. Preventive Maintenance includes keeping media clean of material and oil free, and periodic testing to insure proper operation and to look for wear or damage.

WARRANTY

Upon final installation of the Series RSV Remote Solenoid Valve and the Series SVE Solenoid Valve Enclosure, no routine maintenance is required. A periodic check of the system calibration is recommended. The Series RSV and Series SVE are not field serviceable and should be returned if repair is needed (field repair should not be attempted an may void warranty). Be sure to include a brief description of the problem plus any relevant application notes. Contact customer service to receive a return goods authorization number before shipping.

Solenoid Valve Troubleshooting

Problem	Possible Cause	Action Required
No pulse	• No supply air • Air pressure is too high • No voltage to RSV • Solenoid is damaged	• Check whether the air compressor and valve have been turned on • Check the pressure of the air supply • Check supply voltage • Send back for evaluation
Leakage in outlet port	• Improper installation of inlet port	• Check the pipe connections between the inlet and outlet
Low pulse	• Low air pressure	• Check air supply pressure • Verify that the air supply was distributed properly
Shaking noise	• Valve screws are loose	• Tighten the loose screws
Solenoid noise	• Solenoid mounting screws are loose	• Tighten the loose screws

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