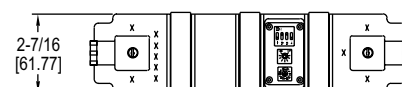
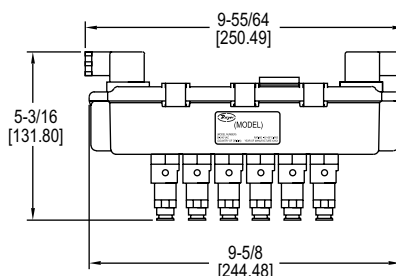
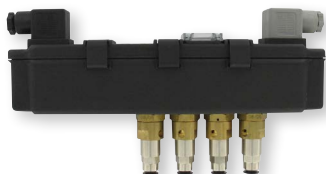




Series SVT Solenoid Valve Enclosure with Timer

Specifications - Installation and Operating Instructions



The **Series SVT Solenoid Valve Enclosure with Timer** is a compact, reliable and economic package designed for small to medium filtration systems. It combines a timer board and solenoid valve enclosure into one package, eliminating the need for separate enclosures and wiring. The SVT is available with 2, 4 or 6 valves. For larger systems expansion modules can be daisy chained to the SVT for a maximum of 60 outputs. The universal power supply accepts 90-240 VAC at either 50 or 60 Hz for both domestic and international requirements. On-Demand Cleaning or Down Time Cleaning functions can be selected with a simple dip-switch. Time-On and Time-Off settings are selected using two potentiometers.

For on demand systems, a Dwyer® A3000 Photohelic® gage or Series 1950 pressure switch may be used with the SVT.

APPLICATIONS

- Dust collection
- Pneumatic conveying
- Down draft tables
- Industrial vacuums

Installation

WARNING

Before installation make sure all air pressure has been released, electric power has been turned off, and air pressure sources have 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. The system must be located in area that meets enclosure ratings. The SVT can be mounted in any position. For optimum life and performance it is recommended that the unit is mounted horizontal and upright to reduce the chance of foreign matter accumulating in the valves.

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 particles between the RDCV diaphragm valve and the connections of the SVT 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.

SPECIFICATIONS

Service: Compatible gases, filtered and oil free.

Wetted Materials: Pilot body: Brass; Spring: 302 SS; O-ring: NBR.

Temperature Limits: 14 to 122°F (-10 to 50°C).

Pressure Limit: 116 psi (8 bar).

Power Requirements: 90-240 VAC

50-60 Hz, 24 VAC 50-60 Hz, 24 VDC ±10%.

Power Consumption: 25 VA/25 W.

Fuse: 90-240 VAC 0.5 A delayed, 24 VAC/DC 1.5 A delayed.

Electrical Connection: 2 DIN A 43652 connectors.

Enclosure Rating: NEMA 4X (IP66).

Enclosure Material: Polyamide with carbon fiber, polycarbonate, TPE rubber.

Process Connection: 1/4" OD push to connect.

Mounting Orientation: Any position.

On-Time: 150 ms to 700 ms.

Off-Time: 4 s to 210 s.

Agency Approvals: CE.

Wiring Connections

The SVT is used in conjunction with an external pressure switch or relay for on-demand cleaning or down-time cleaning. A simple on-off system can be established with a single pressure switch connected to pin 3-4. A Dwyer® Photohelic® high and low limit switch gage can be used to achieve better control. These switches must be isolated contact. The common must not be connected to the equipment contacts or protected ground, since these may introduce electrical noise and cause improper operation or possible damage to the control relays. See Figure 1.

Wiring SVT/SVTE (2 DIN Connectors)

1. Remove center screw and pull wiring assembly from body.
2. Remove gasket and place small screw driver in slot to pry out the terminal block from the body.
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 onto the body. Reinstall the center screw and screw back into the SVT/SVTE body.

Note: Do not change the power supply DIN (Black) with the switch input DIN (Gray). The black DIN connector is specially designed for the power supply, changing DIN connectors can damage the SVT/SVTE.

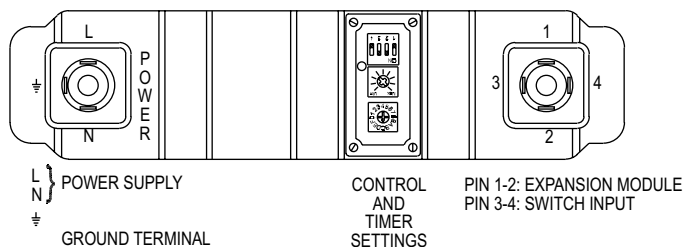
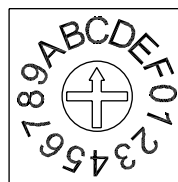


Figure 1



Rotating Potentiometer to set the Time Off

Position	Pause (s)
0	15
1	20
2	25
3	30
4	35
5	44
6	52
7	60
8	75
9	88
A	100
B	118
C	148
D	175
E	210
F	4

The SVT can be expanded up to 60 valves with the use of the SVTE expander module. A maximum of 9 SVTE can be daisy chained to the SVT. The SVT will automatically detect the expander modules and make their valves available. See Figure 2 for wiring.

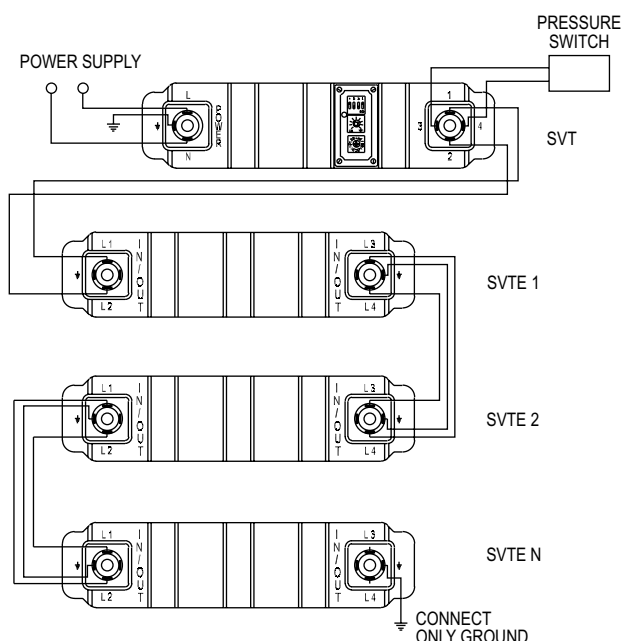
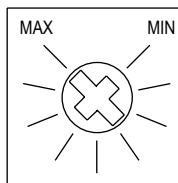
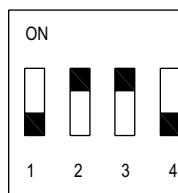


Figure 2



Rotating Potentiometer to set the Time On:

Working Time
Min: 150 msec
Max: 700 msec



Dip-switches for various options:

SW#1: OFF = Clean On Demand
ON = Clean On Demand
SW#2: OFF = Start Cleaning with Open Contact
ON = Start Cleaning with Closed Contact
SW#3: Not used
SW#4: ON = TEST (pause time 1 second).
OFF = Normal (pause time set by the potentiometer)

Figure 3

System Setup

On-Demand Cleaning/Down-Time Cleaning/Test

The SVT controls (dip-switch, 2 potentiometers) are accessed by removing the transparent plastic cover.

The On-Demand Cleaning/Down-Time Cleaning and Test / Normal Operation are set with the four pin dip switch. Dip switch one changes the cleaning function. Down-time cleaning will start when the circuit between pin 3-4 is opened/closed, when the circuit opens/closes the system will complete 5 cycles, then shut down. On-demand cleaning will start when the circuit between pin 3-4 is closed and stop cleaning when the circuit opens/closes. All cleaning cycles start the subsequent channel where the last cleaning cycle left off. Dip switch 2 changes the type of circuit required to start the cleaning function. Dip switch 4 controls a test function. Dip switch 3 is not used. See Figure 3.

Time Off and Time On Setup

Time off defines the period of time between solenoid activations. This function has 15 settings ranging from 4 seconds and 210 seconds. Time on defines the solenoid on time. This function may be set between 150 msec and 700 msec. If adjustments are made while the system is in operation, the new setting will take effect in the following solenoid cycle. Do not use excessive force to turn the potentiometers, this will damage the unit. See Figure 3.

MAINTENANCE

WARNING

To prevent the possibility of death, serious injury or property damage, turn off electrical power, depressurize system and unit before servicing.

The SVT/SVTE 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 the Series SVT Solenoid Valve Enclosure with Timer and the series SVTE Expansion Module, no routine maintenance is required. A periodic check of the system calibration is recommended. The series SVT and SVTE are not field serviceable and should be returned if repair is needed (field repair should not be attempted and may void warranty). Be sure to include a brief description of the problem plus any relevant application notes. Contact customer service to receive a returns goods authorization number before shipping.