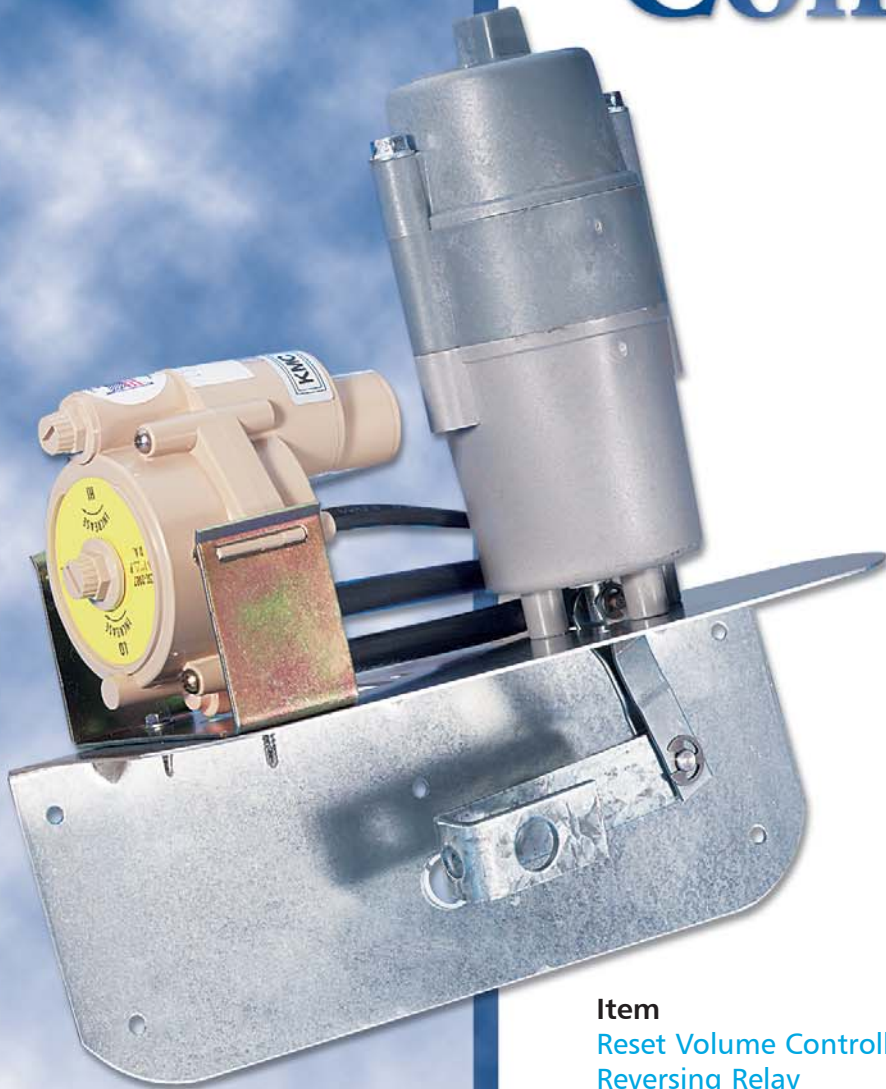
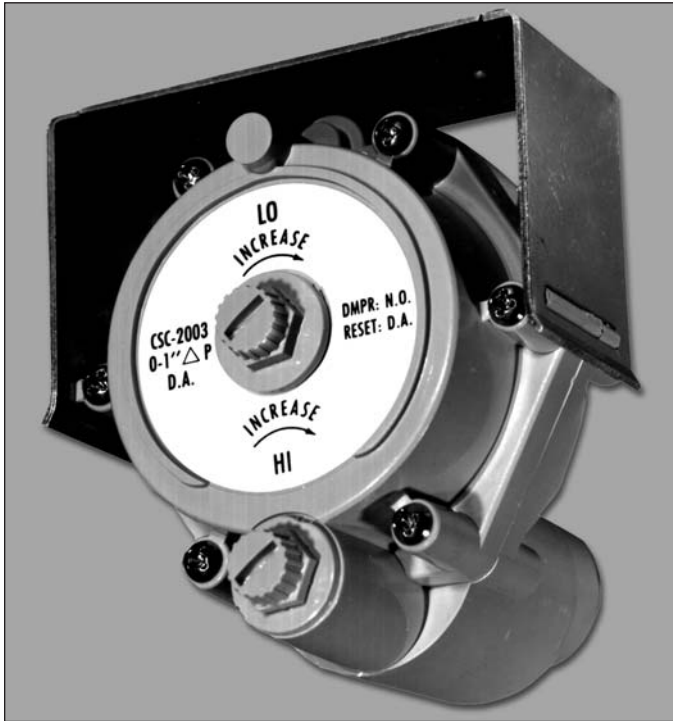


# Pneumatic Controls



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## RESET VOLUME CONTROLLER



### SPECIFICATIONS

#### Differential Pressure Range

- 0 to 1.3" W.G.

#### Reset Pressure Range:

- Direct Acting: 8 to 13 PSIG (Nominal)
- Reverse Acting: 3 to 8 PSIG (Nominal)

#### Main Air Pressure

- 15 to 30 PSIG

#### Air Consumption

- 0.5 SCFH @ 20 PSIG

#### Main Air (M) & Thermostat (T) Connection

- 3/16" nipples for 1/4" O.D. polyethylene tubing

#### Material

- ABS Plastic

#### Ambient Operating Temperature

- 40°F to 120°F

### CONNECTIONS

Main Air Supply:	M
Thermostat Branch:	T
Air Valve Operator:	B
High Pressure Signal:	X (Direct Acting)
Low Pressure Signal:	X (Reverse Acting)
Low Pressure Signal:	Y (Direct Acting)
High Pressure Signal:	Y (Reverse Acting)

### FUNCTION

The Reset Volume Controller controls air volume through the terminal unit. It controls the air volume between pre-set maximum and minimum limits in response to changes in the branch output of a zone thermostat. It maintains the air volume required by the zone, regardless of inlet static pressure variations. In other words, it assures that the terminal unit is system pressure independent.

### DESCRIPTION

This device is available in two configurations. The direct acting reset controller is used for normally open air valves. The reverse acting reset controller is used for normally closed air valves. Each controller is equipped with maximum and minimum airflow adjustment knobs. Both limits can be independently set throughout the range as long as the maximum limit is equal to or greater than the minimum limit. The reset range will vary in response to the airflow limit settings.

### CALIBRATION

**Direct Acting:** Requires a normally open air valve with a direct acting thermostat for cooling or reverse acting thermostat for heating.

1. Adjust center knob to desired **minimum** airflow with 0 PSIG at "T" port.
2. Adjust outer knob to desired **maximum** airflow with 15 PSIG or greater at "T" port.

**Reverse Acting:** Requires a normally closed air valve with a reverse acting thermostat for cooling or a direct acting thermostat for heating.

1. Adjust center knob to desired **maximum** airflow with 0 PSIG at "T" port.
2. Adjust outer knob to desired **minimum** airflow with 15 PSIG or greater at "T" port.

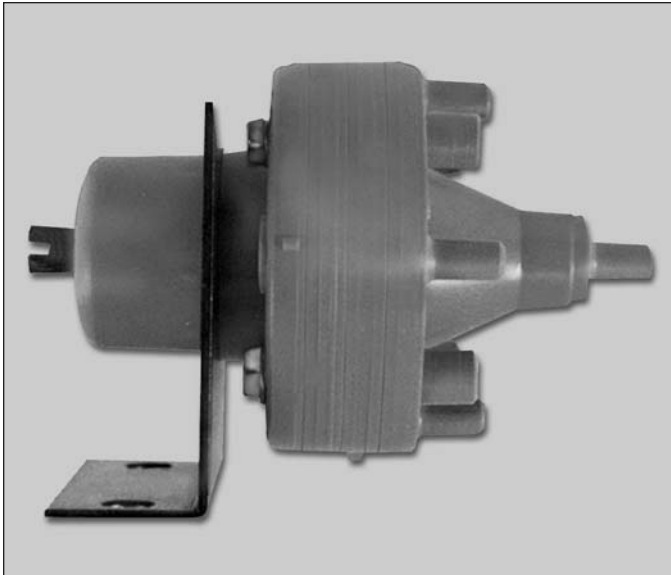
### MOUNTING

These devices can be mounted in either a horizontal or vertical plane as long as they are calibrated in that position. Other angular positions are not recommended.

### MAINTENANCE

These devices must be supplied with clean, dry control air. No attempt should be made to use any other medium. No routine maintenance is required.

## REVERSING RELAY



### SPECIFICATIONS

#### Maximum Air Pressure

- 30 PSIG

#### Air Consumption

- 0.5 SCFH @ 20 PSIG

#### Connections

- 3/16" nipple for 1/4" O.D. polyethylene tubing

#### Material

- ABS Plastic

#### Ambient Operating Temperature

- 40°F to 120°F

### CALIBRATION

This device is usually supplied pre-calibrated by the factory. When field calibration is necessary, connect a suitable air pressure gauge to the output port using polyethylene tubing. Remove tubing from input port. Turn bias adjustment in either direction to obtain desired bias constant. Reconnect original tubing to their respective ports.

### MOUNTING

This device is suitable for in-line mounting in any position without concern for orientation.

### MAINTENANCE

These devices must be supplied with clean, dry control air. No attempt should be made to use any other medium. No routine maintenance is required.

### FUNCTION

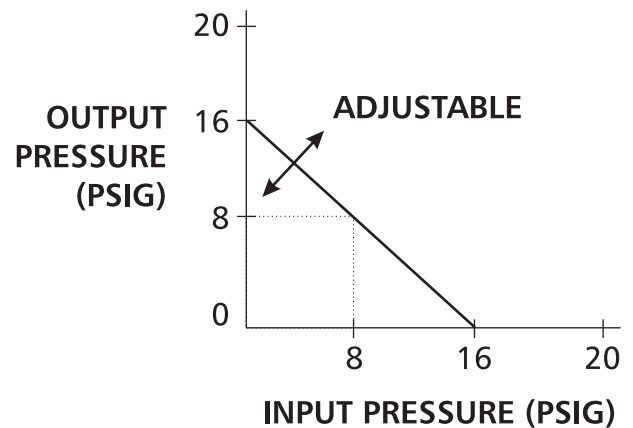
This relay is designed to reverse a proportional signal from a controlling device. In other words, it will provide a decreasing branch line pressure as the input pressure increases and vice versa. Most often, this relay is used to reverse the zone thermostat signal for compatibility with a reset volume controller.

### DESCRIPTION

This device is provided with a bias adjustment to retard or advance the output signal if required. The following diagram further explains the operation.

INPUT (PSIG)	OUTPUT (PSIG)
0	16
3	13
8	8
13	3
16	0

**INPUT PLUS OUTPUT = CONSTANT\***



\*Constant is adjustable with biasing screw. It is commonly set at 16 PSIG.









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