

**APPLICATION**

The PvV series electronically controlled ceiling diffusers combine energy saving, VAV operation with very precise space temperature control. With feedback from the wall controller located "IN" the occupied zone, the PvV diffuser provides the correct amount of conditioned air to match the space load.

- VAV Cooling only
- Automatic Heating – Cooling Changeover with true VAV cooling and VAV heating
- Pressure dependent flow requiring duct static pressure control
- Adjustable minimum damper position for ventilation (adjusted at controller)
- Controller located "in the occupied zone" (not the ceiling) yields better space temperature control
- 360° horizontal pattern delivery even at low air flow rates
- Stand-alone operation or optional BACnet interface

**PRODUCT FEATURES**

- Plaque style ceiling diffuser – center plaque has smooth, hemmed edges for rigidity and flat appearance
- Integral VAV damper-actuator assembly (24vac) delivers exact air quantity as commanded by the space thermostat
- Diffusers connect to each other via RJ-12 modular cables (ordered separately)
- Steel construction
- White powder coat finish

**CONTROLLER FEATURES**

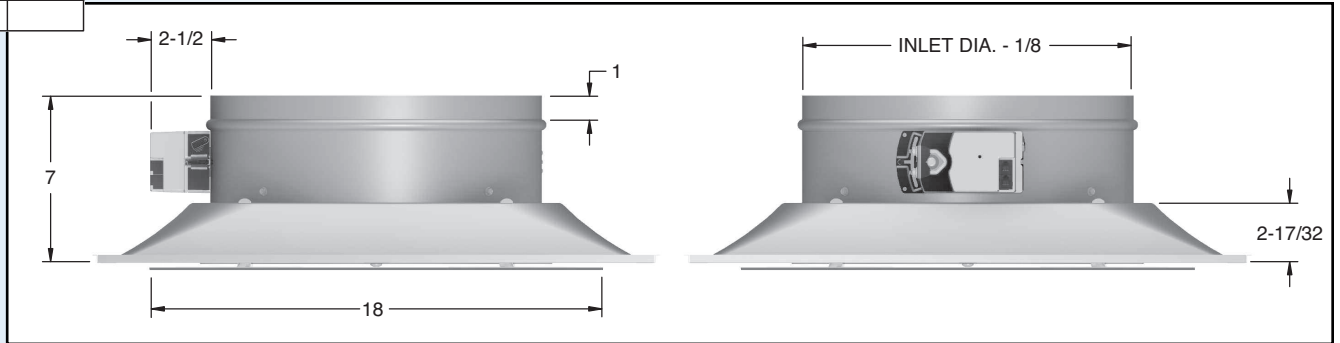
- Digital-display LCD wall controller with easy to understand push buttons enable viewing of current space temperature, changing set points, and simple diffuser configuration
- PI control loops
- One controller can control up to (8) diffusers simultaneously
- Set point adjustment at the controller – no ladders needed
- Available with 0-10vdc output for applications with perimeter heat
- Standard cover is white flame resistant plastic

**OPTIONS**

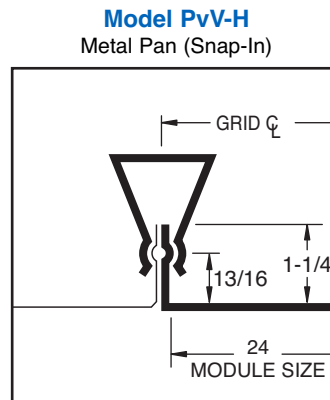
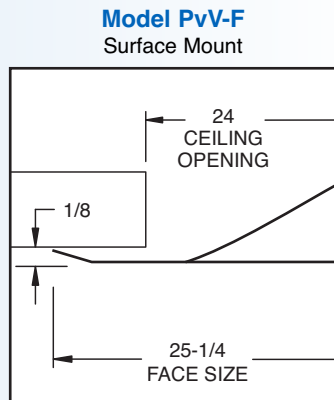
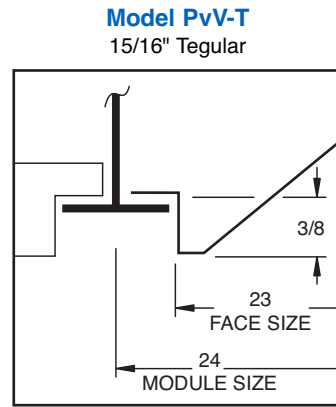
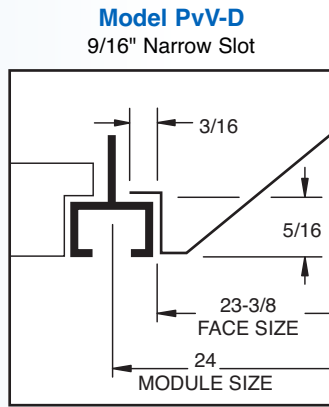
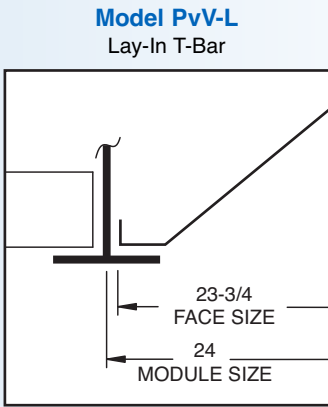
- Aluminum or stainless steel construction
- Optional / custom colors
- Model PvV-RR Pressure Relief Ring to dump excess air into the non-ducted ceiling return air plenum.
- Plenum-rated cables to interconnect controller and diffusers
- 24vac Power Supply



AVAILABLE INLET SIZES	
6Ø	12Ø
8Ø	14Ø
10Ø	



**BORDER STYLES**



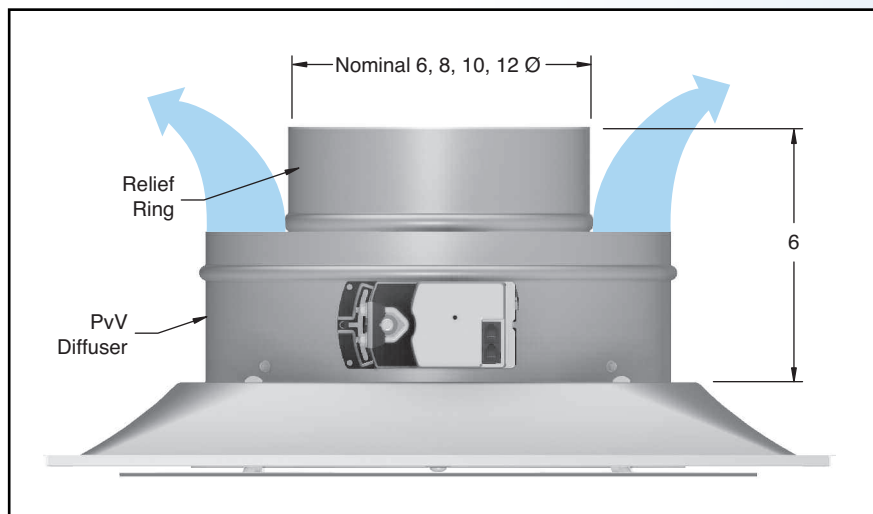
**MODEL PvV-24 POWER SUPPLY MODULE**

- Steps line voltage down to 24vac needed to power PvV diffusers and controller.
- The module is configured for line voltage available (120,208,240,277vac – single phase) & required VA for diffusers and accessories.
- Includes (2) Female RJ-12 ports to power daisy-chained diffusers.
- Interconnecting cables are ordered separately.



**MODEL PvV-RR PRESSURE RELIEF RING**

- Economical means to relieve excess duct pressure as PvV diffusers modulate.
- Used with ceiling plenum returns when there is no pressure control for the supply air duct system.
- Attaches to the PvV diffuser inlet collar (ships loose).
- Available for supply duct sizes 6", 8", 10", 12".



The PvV-HIT controller is a human interface device & temperature sensor in one package. This highly configurable controller is located in the occupied zone and provides an instantaneous & actual measurement of space temperature experienced by the occupants. The controller communicates with PvV diffusers to deliver the required conditioned air to the space to maintain room temperature set point. Wax/thermal expansion type modulating diffusers attempt to control room temperature in the occupied zone with the thermostat located in the diffuser and measuring room temperature at the ceiling. In heating modes when air tends to stratify, temperature sensing at the ceiling cannot indicate true temperature where we live.

## PVV-HIT FEATURES

- Electronic controller with both heating and cooling PI (Proportional+Integral) control capability.
- Temperature sensor  $\pm .36^{\circ}$  F accuracy.
- Set point range 55°-85°F (77° F default).
- Large LCD display and push button configuration. Display can be blanked.
- Room temperature display in Fahrenheit or Celsius.
- Set point adjustment via Up and Down buttons.
- Independent heating and cooling set points.
- Adjustable diffuser minimum position for ventilation air (or full shut-off).
- Dead Band adjustable from 1°-10° F (2°F default).
- Auto Heating-Cooling Changeover or Morning Warm-up supply air temperature adjustable from 55°-85°F (77°F default).
- Unoccupied / Setback modes initiated via contact closure.



(Shown adjusting the Cooling setpoint— during normal operation, only room temperature is shown in the upper right of the screen)