

CALIBRATION GUIDE

Performance Air diffusers use the wax type actuator for both supply air and room air temperature control functions. They are calibrated for a 10 degree (68 to 78 degree) temperature span and are applied to provide an ideal proportional range which is adjustable within the span.

In the cooling mode, room air is induced past the room thermostatic actuator to vary the discharge opening thus varying the volume during the cooling cycle.

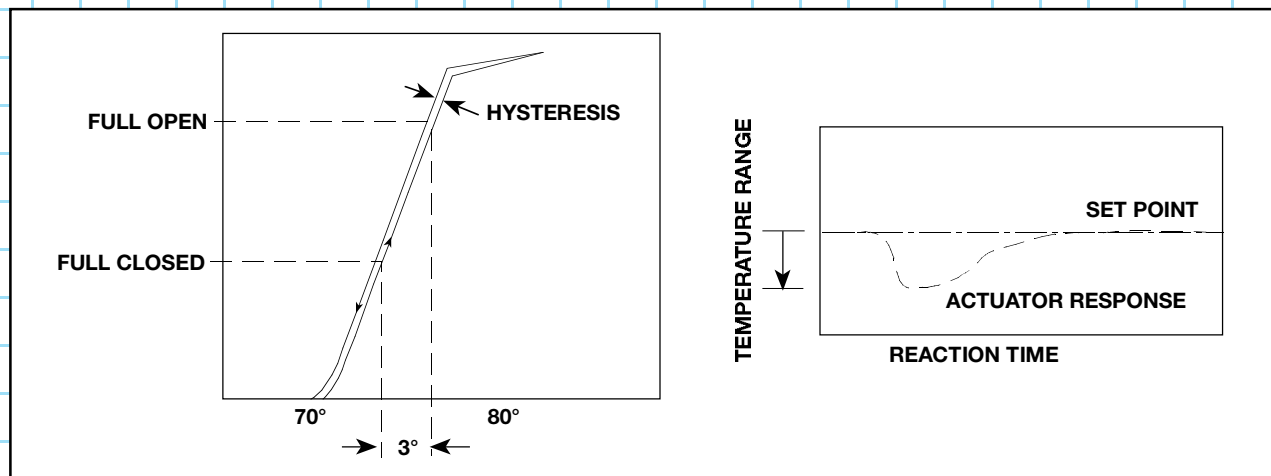
Two (2) added thermostatic actuators are positioned within the inlet collar. They are activated only during the heating cycle. One opens the discharge area, closed during the cooling cycle with a room temperature below the cooling set-point temperature. The second re-positions the discharge area to a pre-selected heating volume (constant volume heating). The temperature of the air at the ceiling will be excessive during the heating cycle and will prevent the use of return air temperature thermostats for "worst case" unit capacity control.

VAV heating control, via a thermostat located within the ceiling diffuser, can only react to the stratified ceiling temperature. A correlation between the ceiling temperature and the occupied space temperature may or may not exist.

The application of the model SCAH diffuser to the exterior of the building will provide the same control results as the typical VAV box system, VAV cooling/constant volume heating, but adds individual room temperature control to each diffuser.

Due to temperature change, force in excess of that required to return the shaft and diaphragm into the wax cavity, inhibits the speed of the wax expansion and shaft movement. The higher the force requirements, the slower the temperature control reaction.

The VAV room temperature control systems provide a 3° F proportional band and a room temperature control reaction which slows as it approaches a stable position to prevent "control hunting".



PERFORMANCE AIR PRODUCTS, INC.

102 Kimball Ave., Unit #16, So. Burlington, VT 05403 • 802/859-0471 • FAX 802/859-0473 • 800/852-1624

Performance Air Products, Inc., warrants the thermal diffuser for a period of 10 years. The diffusers shall be free from defects in material and workmanship. We agree to repair or replace any defective parts. This warranty excludes shipping charges and field labor required to exchange, test or service the diffuser.