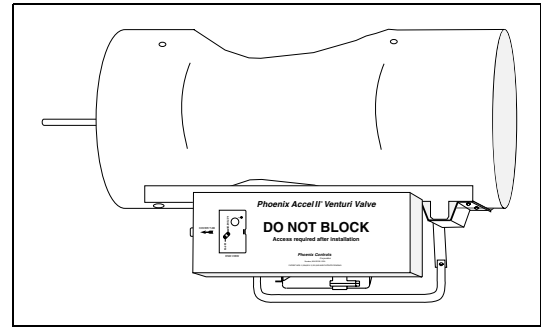


Phoenix Controls Accel II Venturi Valves combine a mechanical, pressure-independent regulator with a high-speed position/airflow controller to meet the unique requirements of airflow control. These valves can be used in constant volume, two-position, or VAV applications—all designed to maximize flow performance while reducing related noise. Valves for VAV applications may be either electrically or pneumatically actuated.

- **Pressure-independent operation:** All valve types include an immediate response mechanical assembly to maintain airflow set point as duct static pressure varies.
- **Airflow control:** By positioning the flow rate controller assembly, the airflow can be adjusted.

Accel II valves are available in:

- **VAV (EXV/MAV series)** with VAV closed-loop feedback control with pneumatic for fume hood applications or low-speed electric actuation for tracking pair applications
- **Constant volume (CVV series)** for maintaining an airflow set point under variable static pressure conditions
- **Two-position (PEV/PSV series)** for high/low flow control (pneumatic only)
- **Base upgradable (BEV/BSV series)** for pneumatic or fixed flow control with feedback option and upgradability to VAV (pneumatic only)



Accel® II valve (VAV pneumatic unit shown).

OPERATION

Airflow Volume Controller Types

Variable Air Volume (VAV) (EXV/MAV series)

For VAV closed-loop feedback control of fume hood and modulating airflow applications. Available with either digital (Celeris or analog controls).

- **Celeris:** The Celeris LonWorks based valve controller (LVC) utilizes distributed control architecture to perform all critical room control functions. This LVC offers the power and flexibility of a conventional room control system but in a more streamlined, cost-effective manner. Celeris can operate as either a standalone or fully integrated control system. Available in pneumatic, high-speed or low-speed electric actuation.
- **Analog:** The analog-based valve controller provides the conventional control solution for critical environments. Available with either pneumatic or high-speed electric actuation.

Constant Volume, Two-position and Base Upgradable

For two-position and fixed, field adjustable flow controls. Base upgradable includes optional electric flow verification and upgrading to VAV type valve.

- **Constant volume:** The valve's shaft/cone assembly is locked into the specific position required to provide the scheduled airflow via factory calibration.
- **Pneumatic:** Switched pneumatic air is applied to the valve's actuator. This positions the shaft/cone assembly to two distinct airflows. Mechanical clamps assure precise minimum and maximum airflows via factory calibration.

- **Base upgradable/pneumatic:** Switched or varying pneumatic air is applied to the valve's actuator. A feedback potentiometer linked to the shaft is provided for optional flow verification and upgrading to a VAV-type valve.

Pressure-independent Controller

All valves maintain a fixed flow of air by adjusting to changes in static pressure. Each valve has a cone assembly with a spring designed to compensate for changes in duct pressure.

