

Environmental Sensing Solutions for Variable Air Volume (VAV) Units



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Introduction

This VAV unit white paper is the second in a series of posts that will explore how Veris Industries products can be used to monitor and regulate heating, ventilation, and air conditioning (HVAC) applications.

In general, a variable air volume (VAV) unit regulates the flow of air to a specific room or zone in a building. It controls the flow of air through the use of dampers. Some VAV unit designs include supplementary heating and / or cooling coils to act as mini air handlers. Thermostats control VAV units. Specifically, thermostats control zone temperatures by telling the VAV unit when and how to adjust its dampers.

Though VAV units are widely used in commercial and industrial applications, with the advent of new energy efficiency standards for homes, they are now being installed in some residential applications.



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Inside a VAV Unit



The information provided herein is intended to supplement the knowledge required of an electrician trained in high voltage installations. There is no intent to foresee all possible variables in individual situations, nor to provide training needed to perform these tasks. The installer is ultimately responsible for ensuring that a particular installation remains safe and operable under the specific conditions encountered.

Where and How Veris Products Fit in a VAV Unit



Product family	Why it is used on a VAV Box
Temperature Sensors (TD)	The temperature sensor provides the input to control the damper to regulate how much hot or cold air is sent to a space. If it has a heating or cooling coil, the sensor will also control those points, as well. If the VAV unit is fan powered, the temp sensor will control the fan speed and / or power based on demand.
Current Sensors (H608)	In a fan-powered VAV box, the current sensor monitors fan status to ensure proper air movement and circulation. (If current is being used by the fan motor, then the fan is in use – therefore air is flowing.)

Veris Industries has a complete line of environmental and current sensing products for your VAV unit applications. Visit our website or call our sales team for more details.

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