



IAQ Monitoring for Pressurized Refrigerant Systems

AntrumX™ is a centralized IAQ sensing platform that is an ideal solution for Variable Refrigerant Volume (VRV) and Variable Refrigerant Flow (VRF) applications. Using duct static pressure to draw air samples from up to 16 unique zones back to a single sensor, AntrumX provides room-level sensing using 94% fewer sensors when compared to other solutions. Antrum's patented sensor pack is located in a control panel in an unoccupied space, making it easy to access and maintain.

The primary standards regarding refrigerant use are ASHRAE standards 15 and 34. The standards are

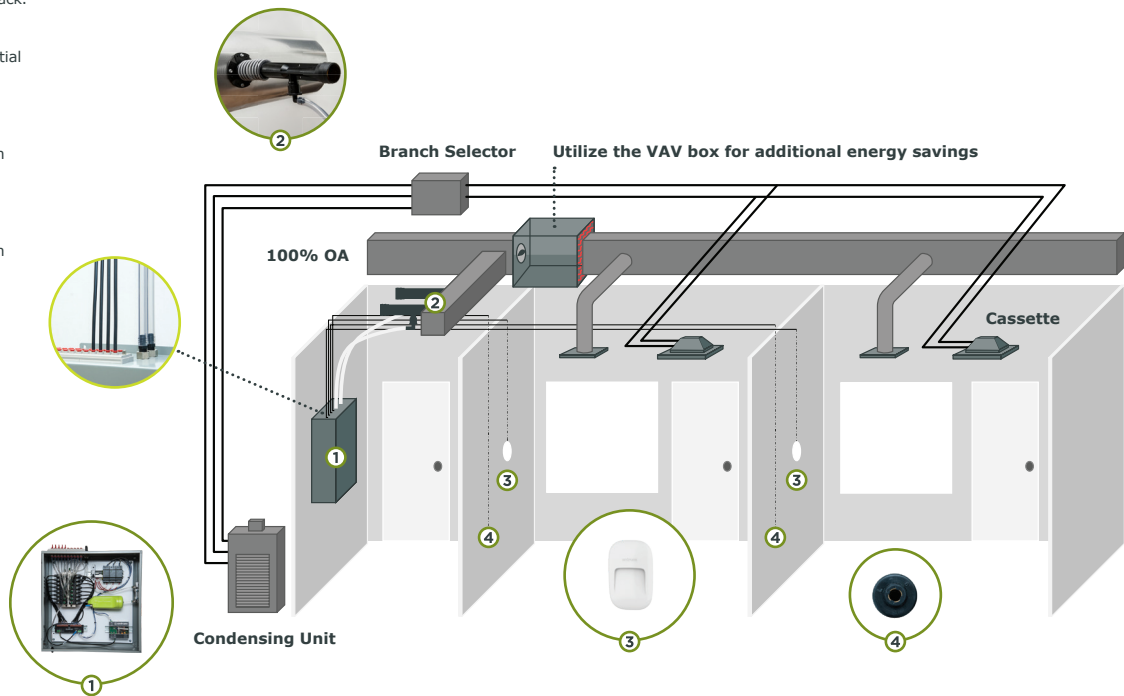
classified as "National Voluntary Consensus Standards" and are therefore left up to the local Authority Having Jurisdiction (AHJ).

While indoor air quality monitoring is not required for VRV/VRF systems, it ensures the safety of occupants and the functionality of the equipment while resulting in a lower overall cost to the end user. The reality is that pressurized refrigerant systems are going to leak, it's just a matter of how much and when.

Refrigerants sensed by AntrumX include R-410A, R-32, and R-454B.

SAMPLE INSTALLATION

- ① **CONTROL PANEL**
Contains the sensor pack.
- ② **AIR ACCELERATOR**
Uses building differential pressure to create a vacuum.
- ③ **FACEPLATE**
Air samples are drawn from the faceplate to the control panel.
- ④ **DUCT PROBE**
Air samples are drawn from the probe to the control panel.





Benefits of Antrum's Centralized Sensing

Safety

In the event of a refrigerant leak, AntrumX allows facilities to identify the location of the leak and take appropriate action. This will be even more critical as new flammable refrigerants are introduced.

System Efficiency

Reduce refrigerant expenses, limit repair costs, and minimize revenue losses.

Scalability

Leverage the AntrumX platform to sense CO₂, RH, and many other indoor pollutants along with refrigerant.

AntrumX utilizes the only sensor technology to receive a 100% pass rate when examined against a total of 28 requirements taken from the five major refrigeration system safety standards as part of a 2020 study by the Air-Conditioning, Heating and Refrigeration Technology Institute, Inc. (AHRTI). Consider AntrumX for your next VRV/VRF project to ensure system effectiveness, energy efficiency, and a better indoor environment.