

# The Bulletin Measurement For Today's Healthy Buildings



## Ventronics – Ventilation Electronic Monitoring

**Finally, our 2021 Edition of *The Bulletin* is here!**

In each edition, we will share the latest industry trends and new product developments. Our team is dedicated to providing the best service, not only in terms of delivery of instruments and sensors, but also advice on their application.



John Penny  
Director, Viscon Systems

**Get The Basics Right**  
**Supporting you with the short-term strategy for safe indoor air**

Viscon is the Australian agent for Ebtron (USA) and SAF Aranet (Latvia EU). Ebtron is a recognised leader in thermal dispersion airflow measurement for HVAC. SAF Aranet designs and manufactures IoT environmental sensors and reporting systems. This includes the best-in-class ARANET4 PRO CO2 monitor for schools and businesses.

### Wireless Monitor - Aranet 4 Pro, Bluetooth, LoRa, MQTT Base Station

Demonstrate to occupants and the public the state of indoor air quality around them. Suitable for cafes, bars, gyms, classrooms, and public buildings. In well ventilated spaces CO<sub>2</sub> levels

normally stays below 800 ppm. In poorly ventilated spaces CO<sub>2</sub> can reach levels of 3,000-5,000 ppm which is a very dangerous situation.

*"If you cannot measure it, you cannot improve it."*

– Lord Kelvin



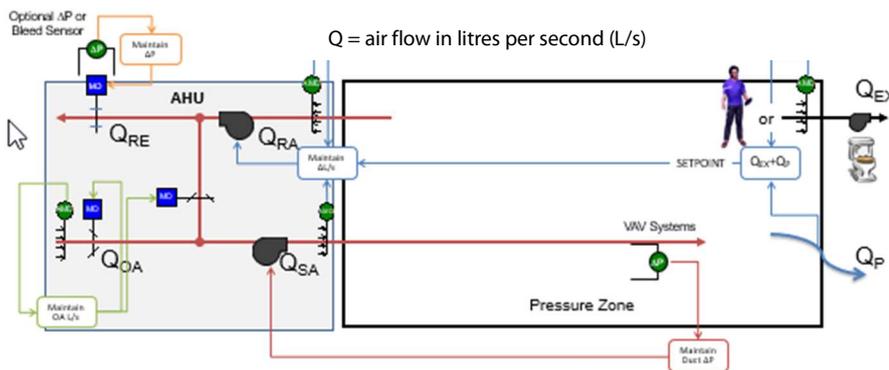
## Airflow Measurement - Ebtron, BACnet MS/TP, BACnet I/P, 0-10V/4-20mA



Thermal dispersion flow measurement provides accurate data you can trust

Typical Applications: outdoor air delivery monitoring and control, differential airflow tracking for building pressurisation control, airside economizer enthalpy switchover detection, supply air humidity monitoring and control.

- Higher accuracy and repeatability: 0.25 to 25 m/s with an accuracy of up to  $\pm 3\%$  of reading
- Avoidance of issues associated with traditional pressure transducers e.g., zero offset, long term stability.
- Flexibility: 1 to 16 sensors for each duct/plenum location to suit every application small or large, critical, or normal, retrofit, or new install



## People Counter – Ebtron – BACnet MS/TP



**Typical Application:** The CENSus-C100 is a unique solution for reliable people counting using thermal imaging for BMS. Ideal for Demand Control Ventilation (DCV) in spaces as described in AS1668:2 section 2.9.2. Designed for single width interior doors or openings. Multiple counters can be installed on a room with more than one entry.

## LATEST DEVELOPMENTS

### Call for “Paradigm Shift” to Fight Airborne Spread of COVID-19 Indoors

QUT Brisbane air-quality expert Distinguished Professor Lidia Morawska is leading an international call for a “paradigm shift” in combating airborne pathogens such as COVID-19, demanding universal recognition that infections can be prevented by improving indoor ventilation systems.

Morawska recommends higher outdoor airflow, filtration, and disinfection rates, and monitors that allow the public to observe the quality of air around them.

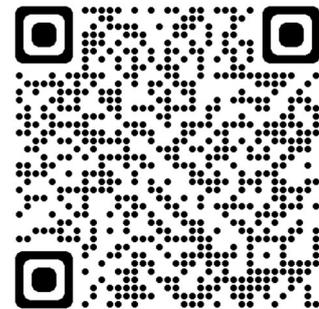
Ventilation systems will need to be demand-based and adjust for different room occupancies, and differing activities and breathing rates, such as exercising in a gym versus sitting in a movie theatre.

### Australian Schools Failing on Indoor Air Quality

According to a team from UNSW Arts, Design & Architecture, Australian schools need better ventilation. They found CO<sub>2</sub> levels in classrooms peaked significantly higher than the 850ppm threshold prescribed by the National Construction Code. The lead author of the study, Associate Lecturer Dr Shamila Haddad, said children are particularly vulnerable to the impacts of poor air quality.

## Standards And Guidelines

“Airborne transmission of SARS-CoV-2 is significant and should be controlled. Changes to building operations, including the operation of heating, ventilating, and air-conditioning systems, can reduce airborne exposures” – ASHRAE



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