# Your hospital is under increased pressure. Or is it?

Although Ebola virus disease (EVD) is not considered airborne, the CDC recommends healthcare facilities conduct certain procedures in a private room or an Airborne Infection Isolation Room (AIIR).

## THE POTENTIAL PROBLEM

Formerly called a negative pressure isolation room, an AIIR is a single occupancy patient care room used to isolate persons with a suspected or confirmed airborne infectious disease. Surprisingly, many healthcare facilities still monitor air pressure in AIIRs using manual smoke tests or flutter tests. However, many are now moving to a more consistent, continuous, automated method of monitoring negative pressure to ensure patient safety and compliance.

## PRIMEX DIFFERENTIAL PRESSURE MONITORING EXCEEDS THE GUIDELINES OF AUTHORITIES HAVING JURISDICTION

Primex Differential Pressure sensors are part of the cloud-based OneVue™ environmental monitoring system that continuously monitors key conditions to protect patients and staff.

We leverage your existing Wi-Fi infrastructure so that continuous monitoring can be deployed more quickly than systems that require transmitters, bridges or other communication hardware.

Powered by Amazon Web Services™, our solutions can also save you additional installation time because you don't have to install servers or software.

## A NEW LEVEL OF ASSURANCE

Our Differential Pressure Monitoring solution employs highly sensitive, low-pressure sensors with the ability to detect ultra-low changes in air pressure that could affect patient safety. The sensors require only a minuscule amount of air flow through the unit to detect pressure changes. If pressure does go out of range, visual, audible and email alerts are triggered to protect the safety of patients, staff and visitors.

- LCD screen with intuitive graphic display shows pressure differential to ± .001inches H2O, providing immediate visual verification of correct pressure.
- Customizable user span settings help minimize "nuisance" alarms by initiating alerts only when pressure thresholds have been breached for a pre-determined length of time.
- Captures and documents pressure readings at user-defined intervals.
- Features both an 802.11 b/g Wi-Fi radio and Ethernet port for easy network communication.
- Comprehensive documentation is easily accessible through the Web-enabled cloud-based OneVue platform interface to prove compliance to all authorities having jurisdiction.

# ONEVUE™ ENVIRONMENTAL MONITORING

To Learn More:
Call +1.262.249.2319
Email: info@primexinc.com
primexinc.com

## Primex Differential Pressure Monitoring Exceeds the Guidelines of Authorities Having Jurisdiction

In a healthcare facility, control of airborne contaminants is essential to providing a safe, healing environment. Many facilities may still rely on smoke tubes or flutter strips to check the airflow and differential pressure of critical healthcare areas.* However, accepted guidelines call for permanently installed monitoring devices for more precise control and safety. The chart below shows how the features of the robust Primex Differential Pressure Monitoring system match the guidelines published by various compliance agencies.

| Primex Differential Pressure Monitoring Features | Guidelines from Authorities Having Jurisdiction | | | |
|---|---|---|---|---|
| | Facility Guidelines Institute 2014 Guidelines for Design and Construction of Healthcare Facilities (Incorporates the 2013 edition of ANSI/ASHRAE/ASHE Standard 170: Ventilation of Health Care Facilities)* | U.S. Pharmacopoeia USP <797> Governs any pharmacy preparing compounded sterile preparations (CSP) | CDC Guidelines | The Joint Commission Environment of Care Chapter |
| Ultra-sensitive Differential Pressure Sensors constantly monitor the differential air pressure between the room and corridor to detect minuscule changes in air pressure and provide assurance the room pressure remains at a minimum of ±0.01 in. wc (±2.5Pa). | Rooms occupied by patients with an airborne infectious disease or by patients requiring a protective environment shall have a permanently installed device and/or mechanism to constantly monitor the differential air pressure between the room and the corridor, whether or not there is an anteroom. | A pressure gauge or velocity meter shall be installed to monitor the pressure differential … between the buffer area and the ante-area and between the ante-area and the general environment outside the compounding area. | Maintain airflow patterns and monitor these on a daily basis by using permanently installed visual means of detecting airflow. | EC.02.05.01, EP 6: In areas designed to control airborne contaminants (such as biological agents, gases, fumes, dust), the ventilation system provides appropriate pressure relationships, air-exchange rates, and filtration efficiencies. |
| Differential Pressure Sensors utilize the facility's existing 802.11 b/g network to communicate with the cloud-based OneVue platform at user-defined intervals of 4 minutes to 12 hours to create permanent documentation of pressure readings | The differential pressure sensor shall continuously monitor the direction of the airflow, and create documentation of the monitoring results. | The pressure gauge monitoring results shall be reviewed and documented on a log at least every work shift (minimum frequency shall be at least daily) or by a continuous recording device. | Maintain and document continuous daily the negative airflow in airborne infection isolation rooms (AII) and positive airflow in protective environment rooms (PE), especially when patients are in these rooms. | |
| Factory-calibrated sensors feature digital temperature compensation to provide accurate differential pressure measurements of as little as ±0.001 to a maximum of ±0.5 in. wc. | Differential pressure between the monitored room and the corridor shall be kept at a minimum of -0.01 in. wc (-2.5 Pa) for Airborne Isolation Rooms and 0.01 in. wc (2.5 Pa) for Protective Environment Rooms. | The pressure between the ISO Class 7 and general pharmacy area shall not be less than 0.02 inch water column (5 Pa). | Maintain room air pressure of ±0.01 in wc (±2.5 Pa) in relation to the corridor. | Defers to ANSI/ASHRAE/ASHE Standard 170-2013 for specific compliance requirements. |
| LCD screen with easy-to-read digits shows pressure differential measurements out to 0.001 in. wc. | A local visual means shall be provided to indicate whenever required differential pressure is not maintained. | | Monitor air pressure with a permanently installed visual monitoring mechanism. | |
| Local audible and visual alarms indicate when pressure is out of range. Text, voice and or/ email alerts also notify appropriate facility personnel to initiate corrective action even if audible alarms are silenced. | Pressure-sensing devices should include an audible warning. | | | |
| Customizable user span settings help to minimize "nuisance" alarms by initiating alarms and alerts only when pressure thresholds have been breached for a pre-determined length of time. | If alarms are installed, allowances shall be made to prevent nuisance alarms. | | | |

*** Note:** Areas designed for control of airborne contaminants include spaces such as special procedure rooms, rooms for residents diagnosed or suspected of having airborne communicable diseases (for example, pulmonary or laryngeal tuberculosis), residents in "protective environment" rooms, pharmacies, and sterile supply rooms. For further information, see Guidelines for Design and Construction of Health Care Facilities, 2010 edition, administered by the Facility Guidelines Institute and published by the American Society for Healthcare Engineering (ASHE). http://www.fgiguidelines.org/guidelines2014.php