

Indoor Air Quality Modules Freshen Homes, Save Energy

Many homeowners install fans to circulate indoor air and use air fresheners to cover up unpleasant odors. Unfortunately, manually operated fans, especially those installed in kitchens, bathrooms and lavatories, are often left on longer than necessary. Air fresheners can present a similar over-usage challenge, dispersing fragrance when no odor is present. The highest quality indoor air can be achieved at the lowest operating cost when fans and air fresheners are controlled by intelligent indoor air quality modules.

Keeping Indoor Air Fresh and Pleasant

AppliedSensor Indoor Air Quality Modules (iAQs) detect a broad range of volatile organic compounds (VOCs). These mixed gases are released into the air from humans, cooking, smoke, cleaning supplies, paint, glue, furnishings, appliances and other sources. In fact, the U.S. Environmental Protection Agency (EPA) notes that VOCs are two to five times more likely to be found inside the home than outside. Even through closed doors, polluted air can travel from room to room and affect occupants' health and comfort.

While VOCs often include odors, not all VOCs can be identified by scent. *The Homeowner's Guide to Ventilation* recommends exhaust fans be installed in all areas where strong pollutant sources are located. The iAQ Module correlates the measured amount of VOCs with CO₂ levels in the indoor air and signals exhaust fans to turn on when thresholds are exceeded and off when air quality returns to normal. In addition to saving energy costs by reducing the fan's operating time, the iAQ modules feature low power consumption to increase energy efficiency and auto-calibrating sensing technology to ensure accuracy.

Integrated into Air Wick® Freshmatic® Air Fresheners

AppliedSensor iAQ technology is also being integrated by Reckitt Benckiser into its new line of "smart" spray devices. Smoke, fumes, pungent food and other



unpleasant smells can linger in kitchens, bathrooms, and unventilated interior areas. The iAQ module signals the Air Wick Freshmatic to release fragrance automatically when unwelcome odors are detected. As a result, indoor air always smells fresh and pleasant. The Air Wick Freshmatic Brand air fresheners are now available in the U.S. at many large retailers, including Walmart, Target and Wegman's.

Commercial Product Now for Retail Market

Now available for residential installations, AppliedSensor's iAQ technology was originally developed to integrate with commercial HVAC systems and ensure high air quality in commercial buildings. For example, at the Chicago Museum of Science and Industry, a micro-machined metal oxide semiconductor (MOS) sensor element enables the iAQ Module to alert the museum's maintenance staff that a restroom needs service when foul odors are detected. In addition to helping to ensure that the facilities are odor free for museum visitors, the iAQs reduce costs. Facility maintenance costs are lower as restroom maintenance is performed on an as-needed basis, and energy costs are reduced, as ventilation fans run only when necessary.