**Use CO₂ Sensor To Maintain Fresh Air In Buildings**

Adding a CO2 Sensor for Fresh air Control Using the NetX™ UP32H Series of Thermostats.

CO2 sensing and fresh air control has become a standard requirement in many public buildings and are used in conference rooms, classrooms, meeting halls, etc. The purpose of CO2 sensing is to enable the ability to monitor levels of CO2 and provide alerting and fresh air when levels are too high.

Why integrate CO2 sensors with the NetX™ thermostats

People exhale carbon dioxide (CO2) at predictable levels, making CO2 a useful indicator of an area’s ventilation needs based on the number of people in the area. To meet fresh air requirements, public buildings traditionally ventilate to meet peak occupant demand, regardless of actual occupant demand. During partial occupancy, energy is wasted to heat, cool, humidify and dehumidify more outside ventilation air than is required.

CO2 sensors, when used in conjunction with the NetX™ UP32H Series Thermostats, provide Demand-Controlled Ventilation (DCV) strategy that improves a building's energy efficiency and helps ensure proper indoor air quality. CO2 sensors take frequent CO2 measurements of a space and adjust ventilation supply accordingly to reach desired CO2 levels. CO2 sensors end up saving energy and money by supplying just the right of amount of ventilation air to satisfy occupant needs.

When connected to a NetX™ UP32H-xx model thermostat, the CO2 high-level trigger can turn on a Fresh Air LED on the Thermostat, initiate a call to open a fresh air damper and turn on the HVAC unit fan to pull in the fresh air. Any CO2 sensor with a dry contact, normally open output can be used. See diagram below.

from:<http://www.networkthermostat.com/news/use-co%E2%82%82-sensor-maintain-fresh-air-buildings>