



MCLIMATE INTRODUCES TWO INNOVATIVE DEVICES FOR INDOOR AIR QUALITY MONITORING AND MOTION DETECTION – THE MCLIMATE HT + PIR LITE LORAWAN® AND THE MCLIMATE CO₂ + PIR LITE LORAWAN®

MClimate has introduced two new devices featuring advanced motion detection, enabling occupancy-driven heating, cooling, ventilation, and energy optimization. Both the MClimate CO₂ + PIR lite LoRaWAN® and MClimate HT + PIR lite LoRaWAN® integrate a PIR motion sensor along with a temperature and humidity sensor. In addition, the CO₂ + PIR lite includes an NDIR CO₂ sensor, enabling precise CO₂ monitoring and effective indoor air quality management.

MClimate specializes in the development of IoT hardware devices and software solutions that prioritize energy efficiency, air quality control, and water loss prevention. We believe that retrofitting buildings with smart technology is the most effective way to decarbonize society. This approach not only cuts carbon emissions but also promotes healthier communities, happier occupants, and simpler facility management. That's why we've chosen to release two new devices designed to boost building efficiency and comfort by enabling indoor air quality monitoring on the one side, and a diversity of automations based on motion detection for both devices on the other side.

The MClimate HT + PIR lite LoRaWAN® and the MClimate CO₂ + PIR lite LoRaWAN® are universal devices aimed to optimize space based on occupancy while providing real-time data on temperature and humidity. Using this data, a variety of automations can be implemented, thus enabling occupancy-driven lighting, heating, cooling, and ventilation. These two IoT solutions make any building smarter by improving energy efficiency while ensuring occupants' comfort. In addition to detecting motion, these smart devices can also count movements, enabling the optimization of space usage, saving energy, and supporting informed business decisions.

Since elevated CO₂ levels above 1000 ppm can cause drowsiness, headaches, and cognitive impairment, we developed the CO₂ + PIR lite LoRaWAN® by integrating a CO₂ NDIR sensor. Therefore, the device accurately measures the CO₂ levels in any room and can help ensure a healthy environment for occupants: in offices, this can improve productivity, while in residential buildings it can enhance overall comfort.

Furthermore, based on the CO₂ levels, demand-driven ventilation can be implemented so the ventilation starts only when a certain CO₂ level is reached, thus enhancing occupants' comfort while optimizing energy use.

Finally, by continuously monitoring CO₂ levels, building managers gain valuable insights into ventilation efficiency, allowing them to minimize the risk of airborne disease transmission, optimize energy consumption, reduce costs, and maintain healthier indoor spaces.

“These two compact yet powerful devices can help building owners to implement demand-driven heating, cooling, and ventilation, enabling them to find the right balance between occupant comfort, energy efficiency and a healthy indoor environment.”
declared Lyubomir Yanchev, Founder and CEO at MClimate.

About MClimate

MClimate specializes in the development of IoT hardware devices and software solutions that prioritize energy efficiency, air quality, and water loss prevention to make any building smart. Through partnerships with global entities, technology providers, end-users, and institutions, we reshape buildings into sustainable places that enhance the well-being and health of their occupants. Moreover, we aid companies in achieving their ESG goals along the way.

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