## KET-AIR-200



## APPLICATIONS

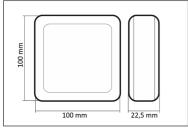
Air Quality

Building management system

VERSIONS		
KET-AIR-210		
KET-THL-305		
KET-TI P-105		



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## Wireless ambient sensor of indirect CO2 and volatile organic compounds

- · Innovative e-ink display always visible
- Perfect integration into BMS / BEMS systems
- · Integrated thermostat function
- Internal memory

Considering that people spend up to 90% of their time indoors, the presence of gaseous pollutants, particularly Volatile Organic Compounds (VOCs), is significantly higher compared to open spaces. In high-density environments such as offices, schools, hospitals, and other public premises, especially in modern buildings characterized by poor air exchange, there is an increase in the concentration of carbon dioxide (CO2) produced by human activity. These negative indoor environmental conditions can significantly impact people's well-being, contributing to health problems, decreased concentration, and reduced productivity. The KET-AIR-200 device uses an indirect method of measuring CO2 based on a MOX technology sensor, which estimates the amount of carbon dioxide by detecting the hydrogen concentration. Combined with a sensor dedicated to measuring Volatile Organic Compounds (VOCs), the KET-AIR-200 allows for the implementation of effective measures to increase and improve ventilation efficiency and air purification, creating healthier and more comfortable indoor environments. The **KET-AIR-200** also integrates high-precision sensors for measuring Temperature, Relative Humidity, and Ambient Light, providing comprehensive environmental monitoring. Thanks to the high sensitivity of its amplified radio module, the device reaches distances of over 600 meters in open air, ensuring a reliable connection with other products in the X-Monitor network, leveraging the benefits of IEEE 802.15.4 wireless technology for efficient and flexible communication. The KET-AIR-200.DY version is equipped with a zero-power e-ink display that provides users with detailed information on the level of thermal comfort present in the environment, ensuring optimal and continuous reading of the detected parameters with minimal energy consumption. The KET-AIR-200.TS version allows the user to set the desired comfort level, further personalizing the indoor environment. Designed for easy integration into building management and energy management systems (BMS / BEMS), the device offers a simple and remotely manageable user interface, facilitating the monitoring and control of air quality and environmental parameters. Designed for professional use, it supports remote or local firmware updates during maintenance operations. For applications in public environments, it includes keypad lock and limitation of active functions, ensuring safe and controlled

TECHNICAL FEATURES	
GENERAL SPECIFICATIONS	Protection Range: IP40 Operative Temperature: -10 ÷ +60 °C Storage Temperature: -15 ÷ +60 °C Relative Humidity: MAX 80% not condensing
CASE	Dimensions: 100 x 100 x 22.5 mm (W x H x D)  Mounting: Panel mounting with supplied supports  Material: ABS, self extinguishing: UL 94 V-O
POWER SUPPLY	Supply Voltage: 12 VDC or via USB Consumption: Connectors types: Removable spring clamps
DATALOGGER FUNCTION	Memory Type: Internal Flash (only for .DL version)  Data Storage Capacity: Retention of more than 60,000 data with date and hour even if there is no connection
DIGITAL INPUTS	Channels: 1 for dry contact with detection time at contact variation of about 50ms. (optional) Digital Inputs:
RADIO MODULE	Supported Protocols: X-Monitor Protocol (X-MP) / IEEE 802.15.4 Radio Frequency: 2.4 GHz ISM Band Output Power: 43 - 420 dBm Sensitivity: -101 dBm Antenna Type: 1 internal Max Distance (Free Air): Over 600 m
FUNCTIONALITY	Radio Signal Indicator: Integrated (LinkQuality) Output Power Adjustment: From local keyboard and remotely Firmware Upgrade: Over The Air and via USB C connector User menu: Thermostat function with temperature summer / winter mode, comfort / saving / off mode, air speed setting, (only .TS version) Support for public environment: Anti-removal support, keyboard lock and active function limitation
TEMPERATURE SENSOR	Sensor Type: Digital Measure Range: -40 ÷ +123.8 °C Precision: ±0.4 ÷ 25 °C Repeatability: ±0.1 °C Resolution: ±0.01 °C
HUMIDITY SENSOR	Version: Measure Range: 0 ÷ 100%RH Precision: ±3%RH from 20 to 80%RH Repeatability: ±0.1%RH Resolution: ±0.03%RH Hysteresis: ±1%RH Long Period Stability: <0.5%RH/year
LIGHT SENSOR	Number of sensors: 2, on front and on top Measure Range: 10 ÷ 1000 Lux Response Curve: Similar to that of the human eye
VOLATILE ORGANICS COMPOUNDS SENSOR	Measure Range: 0 ÷ 60000 ppb Accuracy: ±15% ppb Resolution: ±0.2% ppb
CO2 SENSOR	Principle of Operation: Indirect Measure Range: 400 ÷ 60000 ppm Accuracy: ±10% ppm Nominal Pressure: Resolution: ±0.2% ppm
DISPLAY	Display Type: zero consumption e-ink (only .DY and .TS versions) Resolution: 122 x 250 pixel Brightness: Contrast Ratio: High contrast, high reflectance Viewing Angle: 160° Video Compression: Transmission Rate: