

PPMonitor Office +

For the measurement of Temperature, Humidity, Formaldehyde, VOC's, Carbon Dioxide, Carbon Monoxide and Ozone levels.



MULTIPLE APPLICATIONS: perfect for use in offices, schools, libraries, hospitals and new build properties.

Indoor Air Quality (IAQ) is an important part of building management. Poor IAQ reduces productivity of workers in a workplace, increases absenteeism and impairs learning in schools. IAQ also has an impact on health. Workplaces are at an increased risk of IAQ problems due to buildings regulations for sealed buildings.

Indoor air pollutants can arise from a great many sources. Monitoring IAQ will identify air quality problems so that they can be addressed by eliminating the source of pollution or by increasing ventilation to achieve a more healthy and productive environment.

The PPMonitor Office+ has been designed to give a detailed visual representation of indoor air quality in a building, as part of the buildings management standards. The system can show precise changes in concentration of the IAQ parameters over time.

The PPMonitor Office+ enables the user to control and run the IAQ sampling units via the sophisticated and reliable ZigBee wireless network.

The Manager PC connects to the Zigbee network via a wireless USB dongle; which is capable of transmitting and receiving information from the PPMonitor Office+ monitoring units.

The Manager PC can view, run and control the real-time monitoring and data logging of air quality in a building at the click of a button by accessing and utilising the PPMonitor software.

The PPMonitor software enables the data to be viewed graphically, produce reports and statistical data, run schedules as well as alarm functions and notifications.



It is possible to set up an Ethernet Access Point (EAP) to the wireless network. This allows the wireless modules to be accessed from any location worldwide via the Internet; provided the necessary internet address, firewalls and gateways are enabled on the local network.

Blue Lines are actual concentration values.

Green Lines are Time Weighted Average (TWA) readings. The lines of the graph appear much smoother as a result of the fact that the values are a running average over 8 hours.

SICK BUILDING SYNDROME

Sick Building Syndrome is concerned with a range of symptoms that can effect a worker/ learner in particular building.

Common symptoms include:

- Fatigue
- Headaches
- Shortness of breath
- Eye & throat irritation
- Itchy or dry skin
- Nausea

KEY DESIGN FEATURES

- Small and compact design
- Easy to install
- Supplied with PPMonitor software for graphical representation and reports.
- Connect wirelessly via ZigBee technology to produce complete graphical representation of IAQ on user's PC
- Other PPMonitor units can be added to the wireless mesh network to view other problem areas. This gives a more detailed representation of a buildings IAQ as a whole
- Capable of remote monitoring and triggering alarms
- Proven excellent long-term sensor stability
- Supplied with Calibration Certificate for sensors.

UNIT SPECIFICATIONS

- Dimensions:
240 x 240 x 55mm
- Operating Range: 5-40°C,
30-90% RH
- Data Logging Frequency:
1 minute
- Installation: Wall mounted
via VESA standard
bracket.
- Mains or Battery Powered:
12v DC via external DC
adaptor with 2.5mm
diameter jack plug

ZIGBEE WIRELESS SPECIFICATIONS

- Low Power 2.4GHz IAN
Band
- Data Rate: 250kbit/s over
the air data rate
- Channels: 16 channels
- Power: +3dBm output, +5dB
boost mode
- Sensitivity: High sensitivity
of -98dBm typical at 1%
packet error rate
- Different antennae options
for the different network
coverage required

SERVICES AVAILABLE

- Technical Support
- Hardware Support
- Skype & Team Viewer Sup-
port
- Factory Calibration & Ser-
vice
- Upgrades
- Bespoke System Develop-
ment

Temperature °C /°F and Relative Humidity%

Temperature and Relative Humidity are common IAQ factors implicated in occupant discomfort. In terms of a building's air quality, elevated temperatures increase the off gassing of hazardous gases from building materials. High % Relative Humidity conditions favour mold and bacterial growth.

- Interchangeable digital CMOSens®
- Accurate to ±0.4°C, ±3% RH . Optional upgrade to ±0.3°C, ±1.8% RH
- Calibrated to ISO/IEC17025. Traceable to NIST and the 'National Physical Laboratory'.

Carbon Dioxide CO₂

High CO₂ level indicate a problem with overcrowding or inadequate outdoor air ventilation rates. CO₂ levels increase markedly during periods of human activity (office hours). CO₂ concentrations above 1,000ppm cause occupants to feel sluggish (low productivity).

- Non Dispersive Infra Red (NDIR) sensor
- Measures 0-2000 ppm CO₂
- Accurate to ±30 ppm ±5% measured value
- Automatic Background Calibration

Volatile Organic Compounds VOCs

Many products indoors can off-gas VOCs including cleansers, disinfectants, glues, paints, varnishes and preservatives. Many office materials are also sources of VOCs: new carpeting, adhesives; wood products; vinyl-type flooring and wall coverings to name a few. Studies have shown that the level of VOCs indoors is generally two to five times higher than outdoors.

- Photo Ionisation Detector (PID)
- Measures 0-50 ppm
- Lamp energy 10.6 eV
- Calibrated to isobutylene
- Minimum detection level: 1 ppb

Formaldehyde (HCHO)

Formaldehyde has been classified as a known human carcinogen. The risk of cancer will increase proportionally with concentration and duration of exposure. Formaldehyde is widely used in manufacturing plastics, resins, urea-formaldehyde foam insulation and found in building's construction materials such as wood.

- Electrochemical Sensor
- Measures 0-10ppm HCHO
(extended range available on request)
- Resolution 0.01 ppm (1 ppb available)
- Precision 2%

Carbon Monoxide CO

CO often goes undetected prior to detrimental levels of exposure leading to short-term productivity issues and long-term health implications. It is poisonous and produced by faulty heating systems.

- Electrochemical Sensor
- Measures 0-100 ppm CO
- Resolution <0.5 ppm filtered signal for improved performance
- Zero drift <0.1 ppm /year

Ozone O₃

Ozone can be produced indoors by equipment such as photocopiers. Breathing in ozone may increase the risk of getting certain lung diseases.

- Electrochemical Sensor
- Measures 0-1 ppm O₃
- Resolution <0.03 ppm

PLEASE NOTE

Minimum Requirements:

Windows 7 Pro

or Windows 8/ 8.1

EXTENDED TECHNICAL SPECIFICATIONS AVAILABLE ON REQUEST



PPM Technology Ltd
Unit 34-37 * Cibyn Industrial Estate
Caernarfon * LL55 2BD * Wales / UK
Tel: +44 (0)1286 676 999
Fax: +44 (0)1286 671 811
sales@ppm-technology.com