PP SYSTEMS
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WMA-5
CO_2 Gas Analyzer
With Optional H_2O and O_2 Measurement

The WMA-5 is designed for accurate, reliable and continuous measurement of CO_2. It is extremely easy to set up and install and our innovative "Auto-Zero" technology ensures long term stability, accuracy and calibration. The WMA-5 requires minimal maintenance without the need for factory recalibration that saves both time and money.

For users who demand accuracy, reliability and long term stability

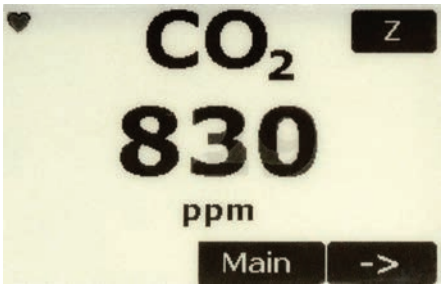
WiFi Optional

Product Features

- High precision, compact, non-dispersive infrared gas analyzer for CO_2
- Accuracy: < 1% over calibrated CO_2 range
- CO_2 ranges up to 100000 ppm (10%)
- Automatic pressure and temperature compensation
- Numeric and graphical display of data
- Convenient data storage and transfer using USB flash drive
- Operation from AC or DC power inputs
- Large touch display with excellent readability
- Built-in air sampling pump and electronic flow sensor
- Voltage, current and digital output
- External water trap
- Rugged IP65 enclosure
- Audible and visual alarms/warnings
- Available options include:
  - H_2O sensor (Solid state)
  - O_2 sensor (Electrochemical cell)
  - WiFi

Applications

- Plant growth chambers
- Environmental control rooms
- Incubators
- Fruit storage
- FACE sites
- Breweries
- Indoor air quality
- Industrial monitoring
- CO_2 leakage detection
- Ambient air monitoring



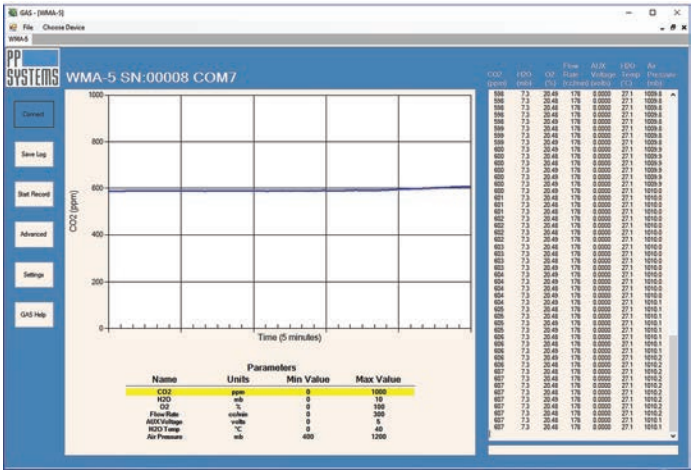
Main display for CO_2

Graphical display for monitoring CO_2 history/trends

Monitor CO_2, H_2O and O_2 from one display

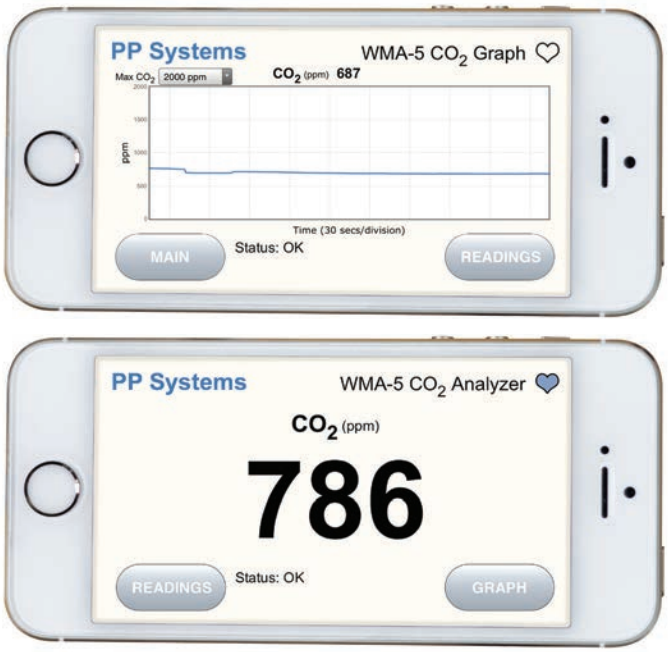
GAS Software

Our **GAS** (Gas Analysis Software) software package is available for use with the WMA-5 for monitoring, logging and recording environmental sensor data.



WiFi *(Optional)*

Monitor the WMA-5 remotely from your computer or smartphone browser in real-time with our WiFi option.



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Technical Specifications

Analysis Method	Non-dispersive infrared, configured as an absolute absorptiometer with microprocessor control of linearization
CO_2 Measurement Ranges *Please specify at time of order*	0-1000 ppm (µmol mol^{-1}) 0-2000 ppm (µmol mol^{-1}) 0-5000 ppm (µmol mol^{-1}) 0-10000 ppm (µmol mol^{-1}) 0-20000 ppm (µmol mol^{-1}) 0-30000 ppm (µmol mol^{-1}) 0-50000 ppm (µmol mol^{-1}) 0-100000 ppm (µmol mol^{-1}) Readings are automatically corrected for temperature and pressure.
Accuracy	< 1% of span concentration over the calibrated range but limited by the accuracy of the calibration mixture
Linearity	< 1% throughout the range
Stability	Auto-Zero at regular intervals corrects for sample cell contamination, source and detector aging and changes in electronics.
Warm-up Time	Approximately 15 minutes
Sampling Rate	10 Hz. Sample data is averaged and output every 1.0 seconds.
Sampling Pump	Integral, long life 12V air sampling pump
Gas Flow Rate	200-500 cc/min (280-340 cc/min is optimal). An internal electronic flow sensor monitors flow rate.
Terminal Block	22 pin terminal block for system inputs and outputs
Analog Output	0–2.5V (CO_2 range selectable) and 4-20mA
Digital Output	RS232 and USB
Air Filter & Water Trap	An external water trap and internal hydrophobic filter are used to protect the system from water ingestion.
Alarm	Visual and audible alarm/warnings 2 relay contacts (Alarm1 and Alarm2)
CO_2 Control	High and low user set points
Data Storage (USB)	USB Flash Drive for data storage in multiple formats
Display	2.7" electronic paper touch display with 264 x 176 pixel resolution
Power Requirements	12 VDC, 1.5A or 100-240 VAC, 50-60 Hz, 0.6A (AC Adapter included)
Power Consumption	Warm up: 12W (12V @ 1.0A) Normal operation: 6W (12V @ 0.5A)
Enclosure	High impact, IP65 enclosure
Gas Connections	Two barbed fittings (inlet and exhaust) for use with 1/8" (.125") ID tubing
Operating Temperature	0-50 °C, non-condensing External filtration is recommended in dirty/ dusty environments.
Dimensions	21.3 cm (L) x 18.5 cm (H) x 11.4 cm (W) (Enclosure only)
Weight	1.5 kg
Optional Accessories	• H_2O Sensor • O_2Sensor • WiFi