

# WMA-5

## CO<sub>2</sub> Gas Analyzer

*With Optional H<sub>2</sub>O and O<sub>2</sub> Measurement*

The WMA-5 is designed for accurate, reliable and continuous measurement of CO<sub>2</sub>. 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.

### Product Features

- High precision, compact, non-dispersive infrared gas analyzer for CO<sub>2</sub>
- Accuracy: < 1% over calibrated CO<sub>2</sub> range
- CO<sub>2</sub> 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<sub>2</sub>O sensor (Solid state)
  - O<sub>2</sub> sensor (Electrochemical cell)
  - WiFi

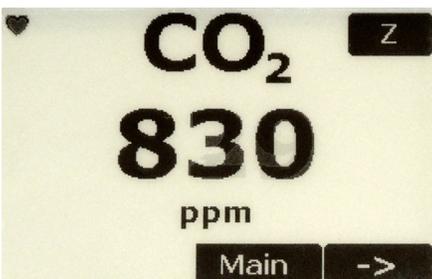


For users who demand accuracy, reliability and long term stability

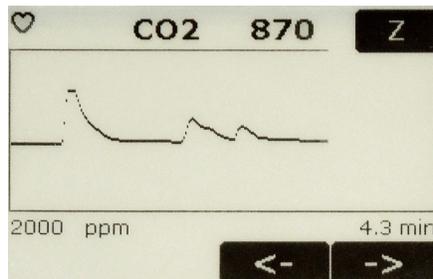
**WiFi Optional**

### Applications

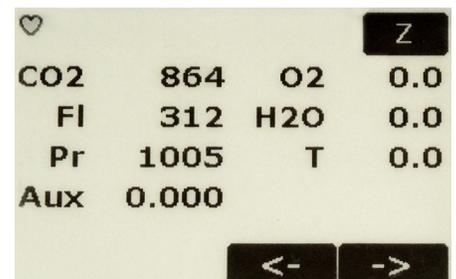
- Plant growth chambers
- Environmental control rooms
- Incubators
- Fruit storage
- FACE sites
- Breweries
- Indoor air quality
- Industrial monitoring
- CO<sub>2</sub> leakage detection
- Ambient air monitoring



Main display for CO<sub>2</sub>



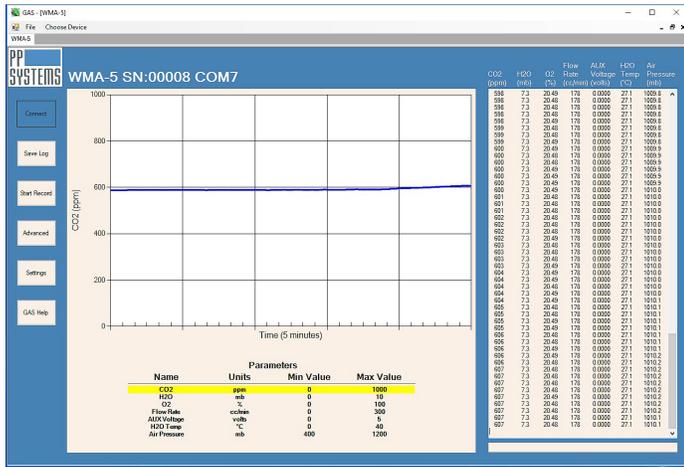
Graphical display for monitoring CO<sub>2</sub> history/trends



Monitor CO<sub>2</sub>, H<sub>2</sub>O and O<sub>2</sub> from one display

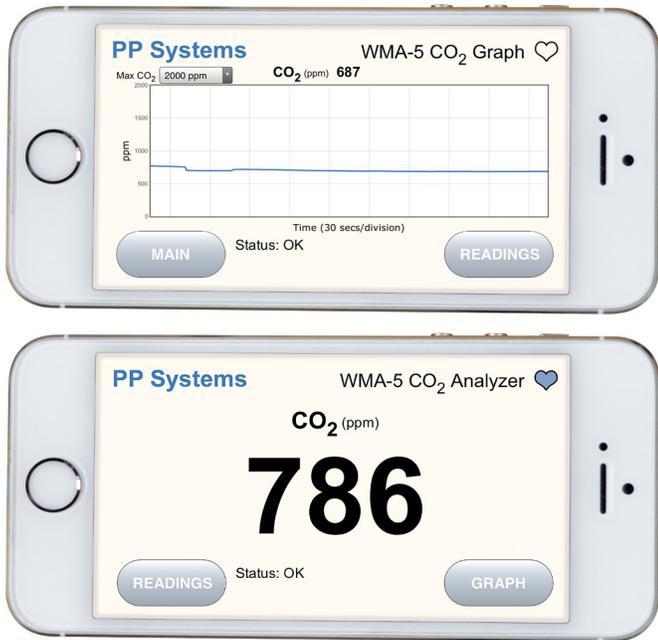
# GAS Software

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

<b>Analysis Method</b>	Non-dispersive infrared, configured as an absolute absorptiometer with microprocessor control of linearization
<b>CO<sub>2</sub> Measurement Ranges</b> <i>Please specify at time of order</i>	0-1000 ppm (μmol mol <sup>-1</sup> ) 0-2000 ppm (μmol mol <sup>-1</sup> ) 0-5000 ppm (μmol mol <sup>-1</sup> ) 0-10000 ppm (μmol mol <sup>-1</sup> ) 0-20000 ppm (μmol mol <sup>-1</sup> ) 0-30000 ppm (μmol mol <sup>-1</sup> ) 0-50000 ppm (μmol mol <sup>-1</sup> ) 0-100000 ppm (μmol mol <sup>-1</sup> )  Readings are automatically corrected for temperature and pressure.
<b>Pressure Compensation Range</b>	55–115 kPa
<b>Accuracy</b>	< 1% of span concentration over the calibrated range but limited by the accuracy of the calibration mixture
<b>Linearity</b>	< 1% throughout the range
<b>Stability</b>	Auto-Zero at regular intervals corrects for sample cell contamination, source and detector aging and changes in electronics.
<b>Warm-up Time</b>	Approximately 15 minutes
<b>Sampling Rate</b>	10 Hz. Sample data is averaged and output every 1.0 seconds.
<b>Sampling Pump</b>	Integral, long life 12V air sampling pump
<b>Gas Flow Rate</b>	200-500 cc/min (280-340 cc/min is optimal). An internal electronic flow sensor monitors flow rate.
<b>Terminal Block</b>	22 pin terminal block for system inputs and outputs
<b>Analog Output</b>	0–2.5V (CO <sub>2</sub> range selectable) and 4-20mA
<b>Digital Output</b>	RS232 and USB
<b>Air Filter &amp; Water Trap</b>	An external water trap and internal hydrophobic filter are used to protect the system from water ingestion.
<b>Alarm</b>	Visual and audible alarm/warnings 2 relay contacts (Alarm1 and Alarm2)
<b>CO<sub>2</sub> Control</b>	High and low user set points
<b>Data Storage (USB)</b>	USB Flash Drive for data storage in multiple formats
<b>Display</b>	2.7" electronic paper touch display with 264 x 176 pixel resolution
<b>Power Requirements</b>	12 VDC, 1.5A or 100-240 VAC, 50-60 Hz, 0.6A (AC Adapter included)
<b>Power Consumption</b>	Warm up: 12W (12V @ 1.0A) Normal operation: 6W (12V @ 0.5A)
<b>Enclosure</b>	High impact, IP65 enclosure
<b>Gas Connections</b>	Two barbed fittings (inlet and exhaust) for use with 1/8" (.125") ID tubing
<b>Operating Temperature</b>	0-50 °C, non-condensing External filtration is recommended in dirty/dusty environments.
<b>Dimensions</b>	21.3 cm (L) x 18.5 cm (H) x 11.4 cm (W) (Enclosure only)
<b>Weight</b>	1.5 kg
<b>Optional Accessories</b>	<ul style="list-style-type: none"> <li>• H<sub>2</sub>O Sensor</li> <li>• O<sub>2</sub> Sensor</li> <li>• WiFi</li> </ul>
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