

# 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

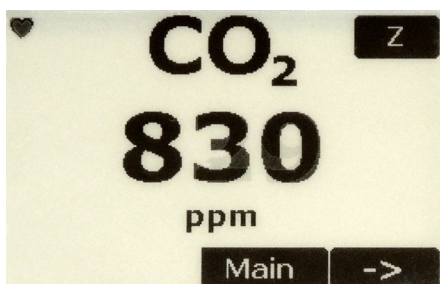


For users who demand accuracy, reliability and long term stability

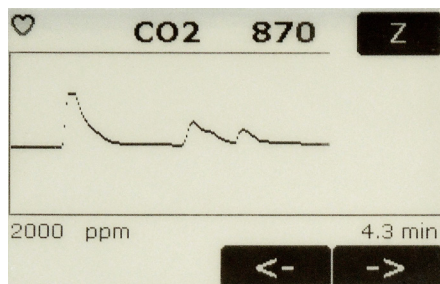
**WiFi Optional**

## Applications

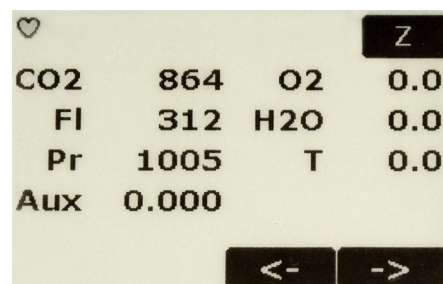
- Plant growth chambers
- Environmental control rooms
- Incubators
- Fruit storage
- FACE sites
- Breweries
- Indoor air quality
- Industrial monitoring
- CO<sub>2</sub> leakage detection
- Ambient air monitoring



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



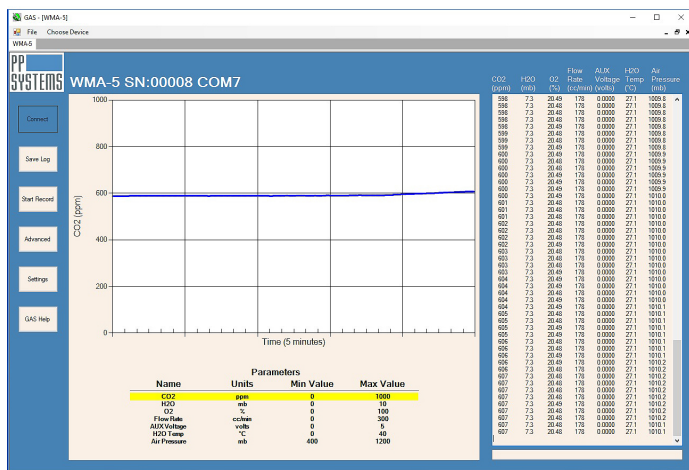
Graphical display for monitoring CO<sub>2</sub> history/trends



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

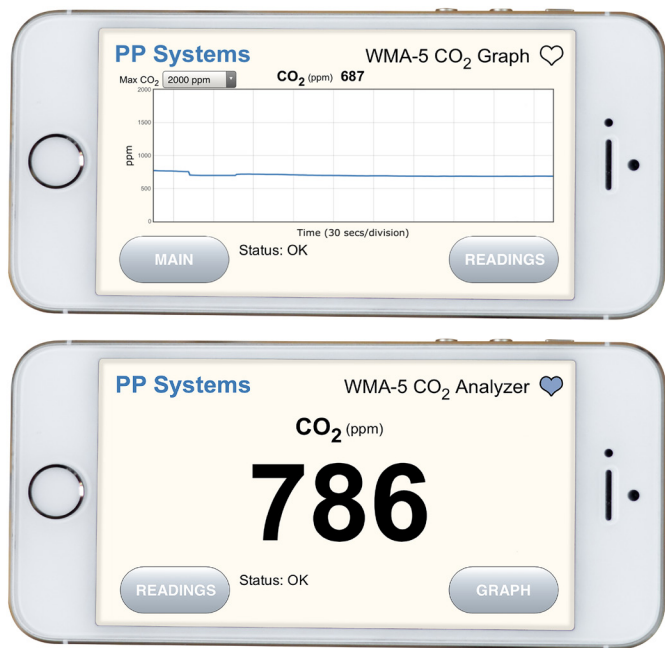
# GAS Software

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.



For further information, please contact us at:

**PP SYSTEMS**  
ppsystems.com

110 Haverhill Road, Suite 301  
Amesbury, MA 01913 U.S.A.

TEL +1 978-834-0505

FAX +1 978-834-0545

EMAIL sales@ppsystems.com

URL www.ppsystems.com

Printed: March 2017

Copyright ©PP Systems 2017.

All rights reserved.

# 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>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>
PP Systems is a registered trademark of PP Systems, Inc.	
PP Systems is continuously updating its products and reserves the right to amend product specifications without notice.	
All brand names are trademarks or registered trademarks of their respective owners.	