

**Continuous, sensitive  
ethylene measurement  
in real time!**

The F-900 Portable Ethylene Analyzer non-destructively measures ethylene in real time, providing Quality Assurance professionals with the data they need to manage ethylene accurately and efficiently.

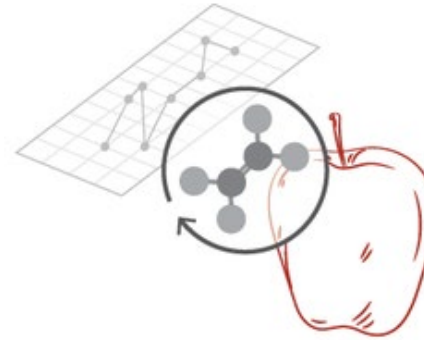
Using two electrochemical sensors, the F-900 measures ethylene from 0-200 ppm with a lower detection limit of 0.025 ppm.

The patent pending "PolarCept" filter removes polar hydrocarbons from the gas stream to ensure that measurements are not polluted by interfering gases such as ethanol.



## Features

- Real-time, continuous monitoring
- Rapid response time
- Functional across broad temperature and humidity range
- Highly sensitive C<sub>2</sub>H<sub>4</sub> sensors with lower detection limit of 0.025 ppm
- Optional CO<sub>2</sub> sensors
- Optional O<sub>2</sub> sensor
- Relative humidity, temperature, and pressure sensors on-board
- Internal data logging and storage (4GB SD card)
- Wi-Fi capabilities
- Direct interface with PC or data logging systems
- Terminal block for controlling ventilation systems
- Optional Injection Port Kit for small volume static samples
- Optional Research Kit for measuring directly from fruits or from static samples in any environment.



## Uses

- Monitoring controlled atmosphere facilities to ensure ethylene levels do not exceed critical thresholds
- Assisting research and development efforts by providing a simple, portable platform to measure ethylene, O<sub>2</sub> and CO<sub>2</sub>.
- Inspecting shipping containers for levels of ethylene production or accumulation
- Measuring flux from a single fruit to understand how ethylene emission levels may vary across treatments
- Measuring head-space accumulation for analysis of small-volume samples or fruits with low ethylene emission rates

## Specifications

<b>Air Sampling Rate:</b>	80mL/min
<b>Measuring Rate:</b>	1 second intervals, open or closed loop
<b>Display:</b>	Sunlight visible transfective LCD
<b>Operating Environment:</b>	0°C - 45°C (0-90 % humidity non-condensing)
<b>Battery Capacity:</b>	5 hours – Rechargeable Li-Ion (5000 mAh)
<b>PC Interface:</b>	USB and WI-FI SD card
<b>Dimensions:</b>	255mm (L) x 210mm (W) x 138mm (H; includes body with legs)
<b>Weight:</b>	2.96 kg
<b>Enclosure:</b>	Anodized aluminum
<b>Warm-up Time:</b>	1 min (C <sub>2</sub> H <sub>4</sub> )

### C<sub>2</sub>H<sub>4</sub> PPB Sensor

<b>Sensor Type:</b>	Electrochemical
<b>Range:</b>	0-10 ppm
<b>Resolution:</b>	0.001 ppm
<b>Accuracy:</b>	5% ± 0.025 ppm
<b>Lower Detection Limit:</b>	0.025 ppm (25 ppb)
<b>Offset Calibration:</b>	Weekly
<b>Span Calibration:</b>	3 months*

### C<sub>2</sub>H<sub>4</sub> PPM Sensor

<b>Sensor Type:</b>	Electrochemical
<b>Range:</b>	0-200 ppm
<b>Resolution:</b>	0.1 ppm
<b>Accuracy:</b>	5% ± 0.5 ppm
<b>Lower Detection Limit:</b>	0.5 ppm
<b>Offset Calibration:</b>	Weekly
<b>Span Calibration:</b>	3 months*

\* Full recalibration required annually at the manufacturer

## CO<sub>2</sub> PPM Sensor (optional)

<b>Sensor Type:</b>	Low-power non-dispersive infrared gas analyzer
<b>Range:</b>	0-2000 ppm
<b>Resolution:</b>	0.1 ppm
<b>Accuracy:</b>	5%
<b>Offset Calibration:</b>	Weekly
<b>Span Calibration:</b>	6 months*

## CO<sub>2</sub> PCT Sensor (optional)

<b>Sensor Type:</b>	Infrared sensor, pyroelectric detector
<b>Range:</b>	0-20%
<b>Resolution:</b>	0.01%
<b>Accuracy:</b>	5%
<b>Offset Calibration:</b>	6 months
<b>Span Calibration:</b>	6 months*

## O<sub>2</sub> Sensor (optional)

<b>Sensor Type:</b>	Electrochemical
<b>Range:</b>	0-100%
<b>Resolution:</b>	0.1%
<b>Accuracy:</b>	5%
<b>Offset Calibration:</b>	6 months
<b>Span Calibration:</b>	6 months*

\* Full recalibration required annually at the manufacturer



**F-900RK Research Kit**



**2 liter Chamber  
&  
Chamber Wand**



**Injection Port Kit**