

# THREE GAS ANALYZER

$C_2H_4$

$CO_2$

$O_2$

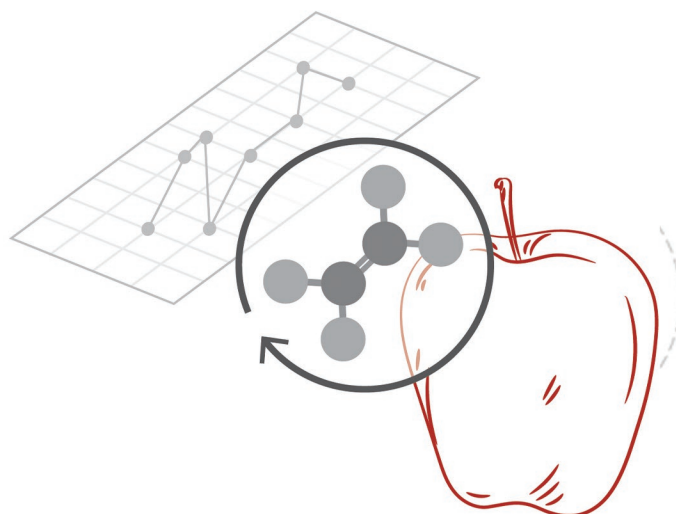
- Rapid, real-time measurement of  $CO_2$ ,  $O_2$  and ethylene.
- Measure ethylene from 0 - 200 ppm.
- Ethylene detection down to 0.15 ppm.

The F-950 Three Gas Analyzer measures levels of Ethylene,  $CO_2$  and  $O_2$  to **maintain optimal produce quality** at every phase of the supply chain. The F-950's versatile design allows it to be **scaled to many environments**, from cold storage to transportation container.

Simple to operate and weighing less than a kilogram, the F-950 uses an electrochemical cell to measure ethylene between 0-200 ppm. The F-950 is ideal for measuring ethylene production across a **wide range of fruit types**.

## KEY APPLICATIONS

- **Verification of ethylene mitigation**  
systems for increasing commodity shelf life and storage longevity.
- **Monitoring controlled atmosphere facilities**  
to ensure the proper balance of gasses throughout operations.
- **Modified Atmosphere Packaging QA**  
in packing lines, laboratories, import/export surveys, distribution centers, and retail centers.
- **Precision citrus degreening**  
and ripening control on various commodities.



# SPECIFICATIONS

Sampling flow rate	70mL / min
Total sampling time	30 seconds
Data saving	Automated (1 sec)
Display	Backlit LCD
Dimensions	18 cm x 13.5 cm x 5.5 cm
Battery life	8.5 hours
Data recorded	CO <sub>2</sub> , O <sub>2</sub> concentrations, date, time RH, GPS location
Operating environment	0° C - 50° C
Weight	0.95 kg
Enclosure	Powder-coated aluminum
Power source	Rechargeable battery (Li-ION)
PC Interface	USB and SD card
Operating pressure	500 - 1200 mbar

## HEADSPACE SAMPLING

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

Range	0-200 ppm
Resolution	0.1 ppm
Lower detection limit	0.15 ppm
Sampling volume	35 ml
Response time	35 seconds
Accuracy (absolute)	2 ppm
Accuracy (relative)	5%
Offset calibration	Weekly
Span calibration	3 months
User replacement	Yes
Lifetime	2 years
Sensor type	Electrochemical

### CO<sub>2</sub> Sensor

Range	0-100%
Resolution	0.01%
Lower detection limit	0.5%
Sampling volume	12 ml
Response time	12 seconds
Accuracy (absolute)	0.5%
Accuracy (relative)	3%
Offset calibration	Weekly
Span calibration	12 months
User replacement	No
Lifetime	15+ years
Sensor type	Infrared sensor, pyroelectric detector

### O<sub>2</sub> Sensor

Range	0-100%
Resolution	0.1%
Lower detection limit	0.3%
Sampling volume	12 ml
Response time	12 seconds
Accuracy (absolute)	0.3%
Accuracy (relative)	2%
Offset calibration	Weekly
Span calibration	6 months
User replacement	Yes
Lifetime	2 years
Sensor type	Electrochemical

## CONTINUOUS SAMPLING

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

Range	0-200 ppm
Resolution	0.1 ppm
Lower detection limit	0.2 ppm
Response time	80 seconds
Accuracy (absolute)	0.2 ppm
Accuracy (relative)	5%
Offset calibration	Weekly
Span calibration	3 months
User replacement	Yes
Lifetime	2 years
Sensor type	Electrochemical

### CO<sub>2</sub> Sensor

Range	0-100%
Resolution	0.01%
Lower detection limit	0.01%
Response time	6 seconds
Accuracy (absolute)	0.01%
Accuracy (relative)	3%
Offset calibration	Weekly
Span calibration	12 months
User replacement	No
Lifetime	15+ years
Sensor type	Infrared sensor, pyroelectric detector

### O<sub>2</sub> Sensor

Range	0-100%
Resolution	0.1%
Lower detection limit	0.1%
Response time	12 seconds
Accuracy (absolute)	0.1%
Accuracy (relative)	2%
Offset calibration	Weekly
Span calibration	6 months
User replacement	Yes
Lifetime	2 years
Sensor type	Electrochemical

