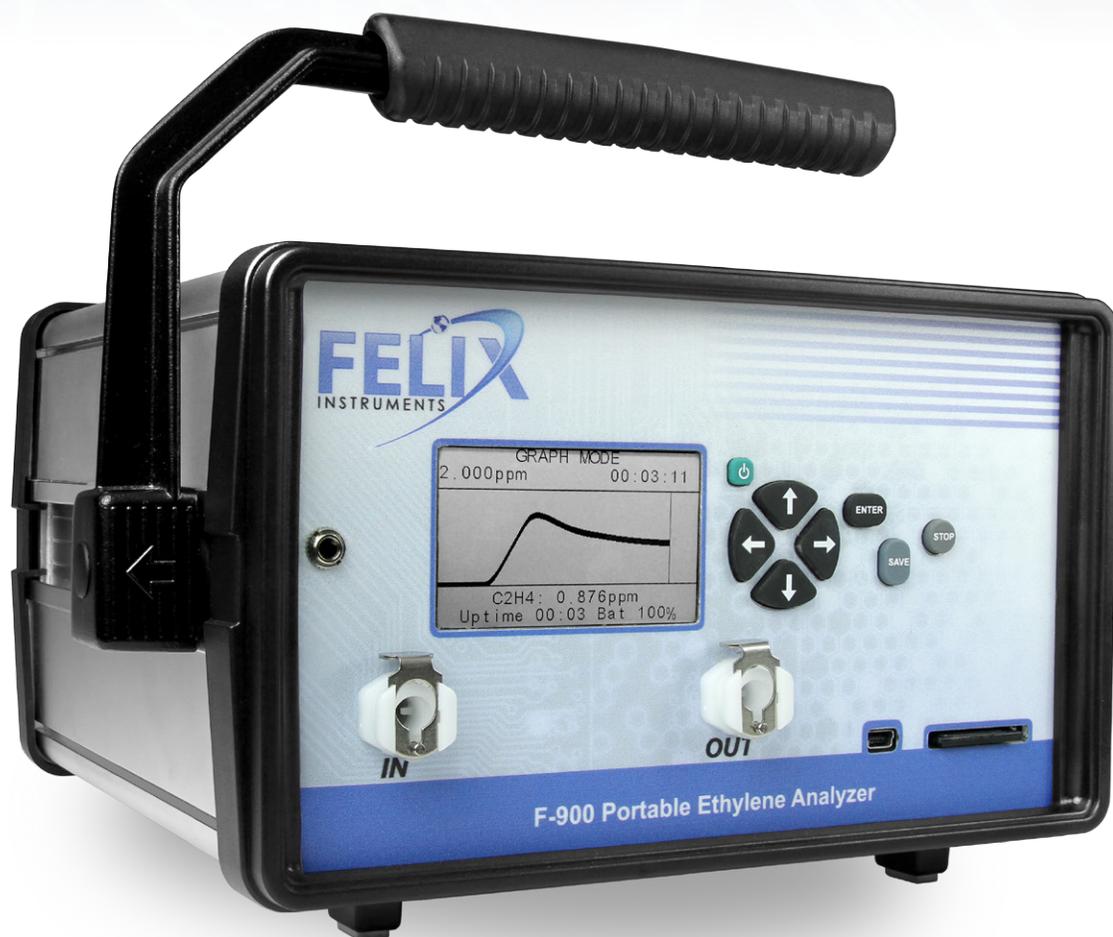


FELIX

INSTRUMENTS

APPLIED FOOD SCIENCE



F-900
Portable Ethylene Analyzer

No Gas Chromatograph Necessary...

The lightweight design and simple operation of the F-900 enables trace measurements of ethylene concentration in any location.

From cold storage to ripening rooms, the F-900 provides accurate measurement across an unparalleled range of ethylene concentrations (0-200 ppmv), with superior low-range resolution (1 ppbv).

The F-900 utilizes electrochemical sensors and proprietary PolarCept™ filtering technology to remove other hydrocarbons from the airstream, allowing measurements of ethylene to be made in under five minutes.

Optional accessories extend the use of the instrument to measure small volume samples (Injection Port Kit), for isolated measurements from a single fruit (Research Kit), and for the measurement of other gases (CO₂ and O₂).

✓ Continuous Monitoring

For understanding daily changes of ethylene in any environment

✓ Real-time Flux from Fruits

For studying ripeness and fruit maturation processes

✓ GC Emulation Mode

For small-volume snapshots of ethylene concentration (requires optional accessories)

✓ Analog & Digital Output

For communication with external devices



Product Features

- ✓ High ethylene sensitivity (Resolution of 1 ppbv)
- ✓ Broad operating range (0-45°C; 0-90% RH)
- ✓ Internal data logging and storage (4GB SD card)
- ✓ PolarCept™ filter to remove non-ethylene compounds

Optional Sensors

Not only can you accurately monitor trace ethylene concentrations with the F-900, we also offer additional sensors for other gases. See back page for specifications.



Injection Port Kit

The Injection Port Kit, (an optional accessory) employs a unique Flow Inject Analysis method (patent pending) to determine ethylene concentrations ranging from 0.5-200 ppmv with sample volumes from 3-13mL. Similar to gas chromatography, a simple estimation, accurate up to ±0.1 ppmv, is made by comparing the area counts of the unknown sample to a known concentration.



Terminal Block

The removable, 4-20mA, terminal block allows the instrument to control user-supplied devices that regulate ethylene concentrations in a room. The digital and analog outputs can be used to trigger alarms, turn on exhaust fans, enable a gas valve, relay data, or for external monitoring purposes.



F-900 Optional Research Kit

Includes: F-900 unit, Injection Port Kit, 2 liter acrylic chamber with non-destructive sampling gasket, chamber interface wand with flexible tubing (compatible with all Felix chambers), sampling bag, silica gel, potassium permanganate, and hard shell instrument carrying case.

Specifications

Air Sampling Rate	0.2 Liters/minute
Measuring Rate	1 second intervals, open or closed loop
Display	Sunlight visible transreflective LCD
Operating Environment	0°C - 45°C; 0-90% humidity non-condensing
Battery Capacity	4 hours - Rechargeable Li-Ion (5000 mAh)
Dimensions	183.5mm x 111mm x 120mm
Weight	2.43Kg
Enclosure	Anodized aluminum
Warm-up Time	5 minutes

Full recalibration required annually at the manufacturer

Ethylene Sensors

C₂H₄ PPB Sensor Specifications

Sensor Type	Electrochemical
Range	0-2 ppm
Resolution	0.001 ppm
Accuracy	±10%
Lower Detection Limit	0.04 ppm
Offset Recalibration	Daily
Span Recalibration	Weekly*

C₂H₄ PPM Sensor Specifications

Sensor Type	Electrochemical
Range	0-200 ppm
Resolution	0.1 ppm
Accuracy	±5%
Lower Detection Limit	0.5 ppm
Offset Recalibration	Bi-annually
Span Recalibration	Bi-annually*

*standard gas required

Carbon Dioxide Sensors

CO₂ PPM Sensor Specifications

Sensor Type	Low-Power Non-Dispersive Infrared Gas Analyzer
Range	0-2000 ppm
Resolution	0.1 ppmv
Accuracy	±2%
Offset Recalibration	Daily
Span Recalibration	Bi-annually

CO₂ PCT Sensor Specifications

Sensor Type	Infrared Sensor, Pyroelectric detector
Range	0 – 20%
Resolution	0.01%
Accuracy	±1.5%

Oxygen Sensor

O₂ Sensor Specifications

Sensor Type	Electrochemical
Range	0-100%
Resolution	0.1%

Authorized Distributor:

GasDetectorsUSA.com

Houston, TX USA

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