



PFAS and Chemical Fast Gas Chromatograph

Model: PFAS-TA-L

Features

- Detects PFAS and other Hydrocarbons – C4 to C25
- AIR OR WATER
- **PFAS-TA-L identifies vapors as low as 1 PPT (parts-per-trillion) in just 5-60 seconds.**
- Benchtop or Portable
- Quantitative
- Qualitative Analysis
- Exceptional Sensitivity
- Analyze Vapors In 5 - 60 Seconds
- Internal Sample Pump
- Data Output - Bluetooth or RS-232 User Settable
- Display on User's Laptop; **Optional:** Laptop
- DC Power With Charger

Applications

The PFAS-TA-L Vapor detector and analyzer is a field ready fully integrated system for air or water. With an internal sampler pump and integrated computer, the **PFAS-TA-L identifies vapors as low as 1 PPT (parts-per-trillion) in just 5-60 seconds. EPA's proposed regulation limit for PFOA and PFOS is 4 ppt.**

The PFAS-TA-L provides immediate measurement of PFOA and PFOS. Typical laboratory analysis is expensive and may take a week or more for results.

Rapid, on-the-spot PFAS contamination testing below the EPA's limit and can be configured for either water or air samples. A proprietary Surface Acoustic Wave (SAW) detector results in a system with previously unattainable sensitivity in a portable low-cost package.

Description

- » Carrier Gas: Helium, Typical 300 tests per day per charge
- » Analysis Time: 5– 60 Seconds
- » Display: Windows any version

Utilizing a trap and helium carrier gas, the PFAS-TA-L injects samples into a heated column and separation takes place. Materials sequentially exit the column and are deposited on the SAW detector. The deposit results in a change in the oscillating frequency of the resonator directly proportional to the mass.



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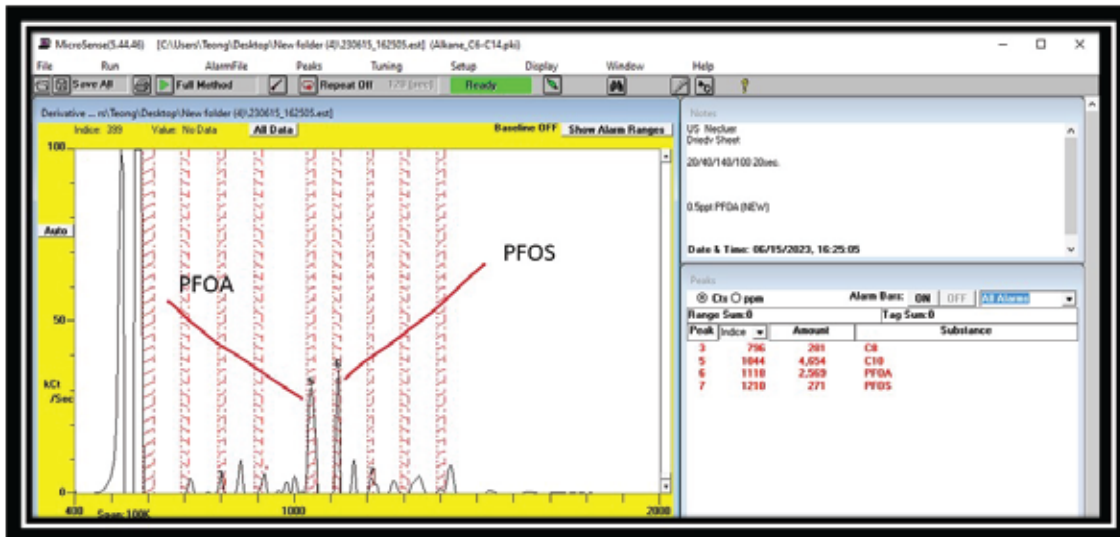
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PFAS and Chemical Fast Gas Chromatograph System

Model: PFAS-TA-L

The PFAS and Chemical Detection System Explained

Sheet of AEM membrane
(20.40.140.100 Pump 10sec) Weight 364mg slice



Unique Detection

- Recognizes full chemical signature
- Provides a complete chemical profile
- Has an expandable library of 700+ chemical signatures
- Ultra-high-speed chromatography
- Same time pattern recognition and trace detection
- Adapts and learns to recognize threat signatures



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PFAS and Chemical Fast Gas Chromatograph System

Model: PFAS-TA-L

How It Works

- A Q surface acoustic wave (SAW) interferometer is the key component
- Individual analyte peak half-width is measured in seconds
- Every picogram of material is collected on the surface of the temperature-controlled quartz crystal.
- An image of the chemical pattern is obtained from the frequency of the SAW resonator.
- The SAW interferometer produces a resonance frequency proportional to the amount of column effluent deposited on the quartz surface.
- A complex ambient environment is viewed and recognized via a its image

This unique method and function is a rapid and accurate process for PFAS and other chemical detection. The benchtop model **PFAS-L** and the field model **PFAS-F** provide researchers with a process that stands out from other market methods.

Specifications

Detector:	Surface Acoustic Wave (SAW) Quartz microbalance
Dynamic Range:	2x10 ⁵
Temperature:	0° C to 150° C, programmable
Detects:	PFAS and C4 to C25
Sensitivity:	Parts per billion for many compounds in 10 seconds Sensitivity will vary by compound sampling time, matrix, interferences and detector temperature ranges.
Accuracy:	<2% standard deviation
Dynamic Range:	10 ⁶ ±10%
Recycle Time:	30 sec minimum
Sampling:	
Sample Pump:	Internal
Sample Introduction:	~.5 ml/sec
Sample Time:	1-300 seconds, User Settable
Carrier Gas:	Helium, (Min 99.999% purity, #6) Replaceable Cylinder 95cc at 17.6MPz (2560 psi) Typical use is 200 - 300 tests per day on one helium charge
Compound Identification:	Automatic with user calibration



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Model: PFAS-TA-L

Column:

Limits: 35°C to 225°C -depending on column

Ramping: 1 – 18° C/sec

Environment:

Operating Temperature: 32°F to 105° (0°C to 40°C)

Relative Humidity: 0 – 95% non-condensing

Power: Battery Pack: 28V DC, 16 AHr Lithium Ion (5 hr typical)

Charger Power: 100 – 127 VAC at 3 amps – 50/60 Hz;
200 - 240 VAC at 1.5 amps – 50/50 Hz

Inlet Connection / Temperature

Inlet Port: Stainless steel LUER

Temperature: 50°C to 200°C

System Controller Software

Intel Pentium 100 MHz or better processor, MIN: 16MB RAM, 1GB Hard Driver with Windows (any version)

Optional: Laptop computer

Head:

Weight:	5.7 lbs	(2.6 kg)
Length:	12.5 in	(31.8 cm)
Width:	4.3 in	(10.9 cm)
Height:	6.8 in	(17.3 cm)

Support:

Weight:	18.7 lbs	(8.5 kg)
Length:	12.5 in	(31.8 cm)
Width:	9.7 in	(26.4 cm)
Height:	5.8 in	(14.5 cm)

Charger:

Weight:	7.7 lbs	(3.5 kg)
Length:	13.5 in	(34.25 cm)
Width:	9.7 in	(14 cm)
Height:	3.7 in	(9.5 cm)



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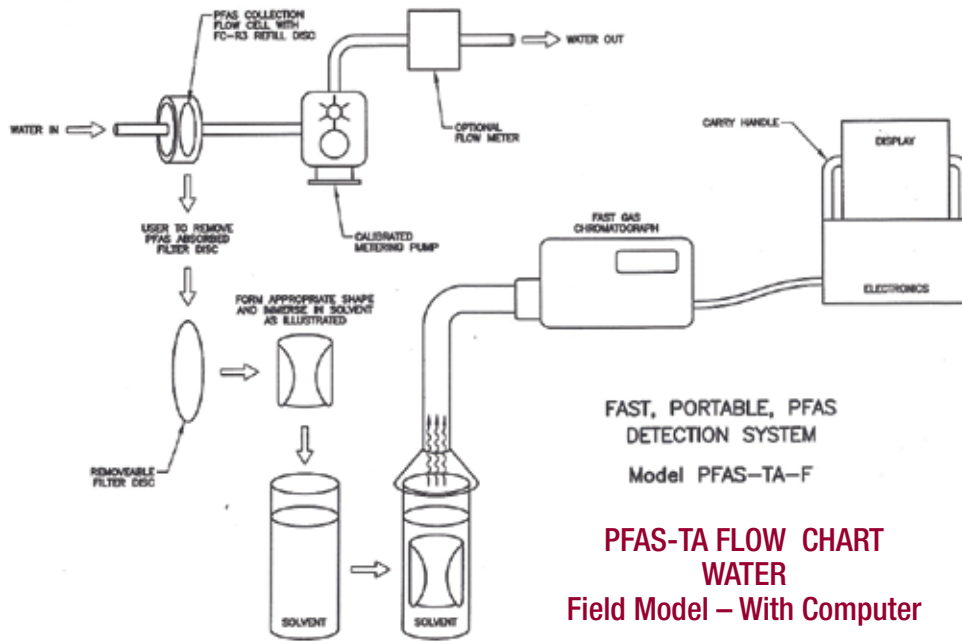


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PFAS and Chemical Fast Gas Chromatograph System

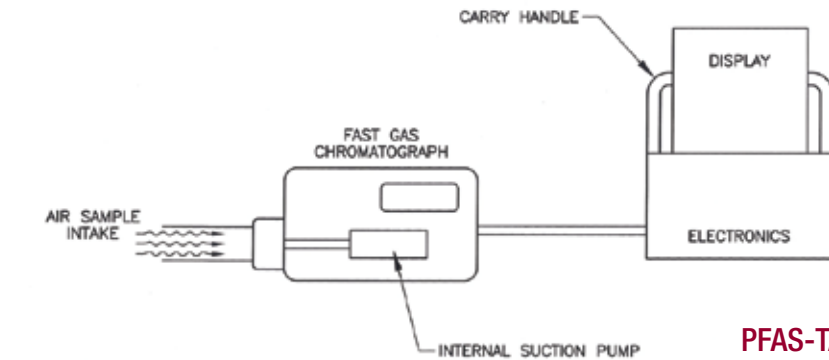
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PFAS-TA-L Model has Optional Computer.

PFAS-TA-F Model includes Computer.

FAST, PORTABLE, PFAS
DETECTION SYSTEM
Model PFAS-TA-F



SUITABLE FOR MONITORING
AIR AND SURFACES

PFAS-TA FLOW CHART
AIR
Field Model – With Computer



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