

The Fuel Sniffer

Application:

The Fuel Sniffer is a portable fuel dilution meter that can be used in the laboratory or in the field to provide rapid and accurate measurements of fuel contamination in engine oil.

Features

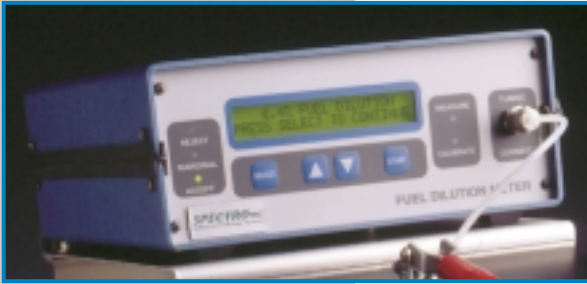
- ▶ Small size, ideal for field or laboratory use
- ▶ Easy to operate, rugged and reliable
- ▶ Fast and accurate
- ▶ Inexpensive, requires no chemicals or consumables
- ▶ Low maintenance, self-diagnostic program



"The Fuel Sniffer was developed in collaboration with the U.S. Navy."

Principal of Fuel Measurement:

Developed in collaboration with the U.S. Navy, the Fuel Sniffer employs a Surface Acoustic Wave (SAW) Vapor Microsensor to measure the concentration of fuel in used lubricating oil samples by sampling the "head space" in the sample bottle. Based on Henry's Law, the fuel vapor concentration is directly related to the fuel present in the oil sample. A pump inside the instrument draws head space vapors across the SAW sensor which detects absorbed hydrocarbons by a change in frequency of a surface acoustic wave (SAW).



Operating instructions are displayed on the LCD screen and functions are selected from the menu by pressing a single key.

Operation

Specifications

- ▶ Measurement Range:
0 to 10% fuel dilution
- ▶ Fuels:
Diesel, gasoline, or other light hydrocarbons
- ▶ Measurement Time:
63 seconds
- ▶ Accuracy:
+/- 0.2%
- ▶ Dimensions:
*89 x 203 x 279 mm
(3.5 x 8 x 11)*
- ▶ Weight:
2.7 kg (6 lbs.)
- ▶ External Power:
110/220V 50/60 Hz
- ▶ Sensor:
Solid State SAW chemical microsensor
- ▶ Display:
LCD, with LED backlight
- ▶ Data Log Memory
500 measurements
- ▶ Serial Output:
RS232, 9600 Baud

The Fuel Sniffer needs just over 60 seconds to perform each measurement. The next sample can be introduced quickly with the specially designed “clamp and sample” bottle platform, so that 40 or more samples can be measured per hour. The sample bottle platform also keeps the sample bottle below the level of the instrument to prevent potential damage due to liquid sample coming in contact with the sensor.

A single-point calibration, using a 5% fuel/oil standard, is as fast to run as a sample, so the Fuel Sniffer is quickly ready to make accurate measurements. Accuracy is comparable to that achieved by gas chromatography, but without all the time, expense and inconvenience. The percentage fuel dilution is displayed on the backlit LCD display and can also be sent to a printer or external computer via a built-in RS 232 output.

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