

PETROSENSE® PHA-100

Portable Hydrocarbon Analyser for Analysis of Hydrocarbons in Water and Vapour



The detection and measurement of petroleum hydrocarbons in water was historically achieved by sampling followed by field or lab analysis usually by gas chromatography.

With the advent of PETROSENSE® PHA-100, the world's first patented fibre optic chemical sensor built into a portable analyser, it is now possible to measure ppm levels of petroleum hydrocarbons *in-situ*. That is to say, in ground water via a sampling well, at the interface and in the vapour above the water.

PETROSENSE® combines patented fibre optic chemical sensor (FOCS®) technology with digital electronics and an advanced microprocessor that makes PETROSENSE® unique in the market place. FOCS® technology is based on modulation of the transmitted light intensity when the sensor is exposed to hydrocarbons. The PETROSENSE® sensor is designed with a proprietary chemical coating which responds reversibly to increasing or decreasing levels of petroleum hydrocarbons.

The PETROSENSE® PHA-100 Portable Hydrocarbon Analyser is designed to meet the requirements for field monitoring. In the Analytical mode, it gives fast and accurate quantitative data for petroleum hydrocarbons in water and vapour, and correlates very well with lab gas chromatographic analysis. In the Screening mode, it offers fast relative data on petroleum hydrocarbon contamination, tracking field gas chromatograph data for TPH and responds strongly to BTEX components.

Typical applications include:

- Remediation Monitoring
- Site Assessment
- Well Plume Monitoring
- Storm / Waste Water Monitoring
- Hydrocarbon Breakthrough
- Leak Detection, Above Ground Et Underground Storage Tanks

The unit works equally well for ground water, surface water, soil gases, bailed samples, and collected samples.

FEATURES AND BENEFITS:

- Detects Petroleum Hydrocarbons directly in water, vapour Et floating liquid product.
- Operates in analytical or screening mode.
- Provides *in-situ* real time information.
- Quick zero.
- Automatic media sensing.
- Easy to use, menu-driven software.
- Third party certified equivalent to EPA Method 8020.
- Probe stability indicator.
- Logs data from 100 samples.
- Serial output to laptop or printer.
- Easy to calibrate.
- Intrinsically safe, UL, CUL, KEMA EEx ia IIAT4



ACCESSORIES

- Rugged, professional air / water tight carrying case.
- Supply of calibration solution.
- Charger.
- Interface cable.
- Calibration containers / components.
- Waste disposal filter
- Syringe

PERFORMANCE SPECIFICATIONS

Operating Range:

Vapour (PHA-100 PLUS): 0 - 20000 ppm as THP
Water (PHA-100W): 0 - 2000 ppm as THP

Lower Limit of Detection:

Vapour (PHA-100 PLUS): < 10 ppm as xylene
Water (PHA-100W): 0.1 ppm as xylene

Hydrocarbons Detected:

C6 Et higher MW petroleum hydrocarbons

Accuracy / Precision:

Vapour (PHA-100 PLUS): ±15% of reading
Water (PHA-100W): ±10% of reading

Response Time (Initial):

< 5 seconds

Response Time (to 95%):

Vapour (PHA-100 PLUS): < 1 minute
Water (PHA-100W): < 5 minutes

Operating Temperature Range:

0° C - 50° C

Trend Correlation with GC Data:

Vapour (PHA-100 PLUS): 95%
Water (PHA-100W): 95% vs. EPA method 8020

HARDWARE SPECIFICATIONS

Readout:

Backlit LCD - parts per million, °C or °F, water or vapour

Logging memory:

Data from 100 samples

Battery Life:

8 hours normal operation (Low battery indicator)

Battery Charge:

12 hour charge period, AC or vehicle

Weight:

4.5 kg

Analog Outputs:

Temperature: 0 - 2.55 Volts 0° C - 50° C
Concentration: 0 - 2.55 Volts
Water: 0 - 180 ppm xylene
Vapour: 0 - 4000 ppm xylene

Serial Output:

9600 baud

Calibration:

Simple 3 point calibration with certified xylene standard

Probe Dimensions (d x h):

19 mm x 200 mm

Cable length:

7.7 m or 30.8 m

CE Mark:

Fully approved

Warranty:

Distributed By:

me.
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