HC-1000/HC-2000 On-Line UV Oil In Water Analyzer

For the continuous measurement of oils in water process streams.

Features

- ▶ User-friendly interface
- ▶ LCD display and PC storage of the data for past 30 days
- ▶ Operating range 0-10, 0-20, 0-100 and 0-200 ppm Oil in Water
- ▶ Rapid analysis cycle of 15 seconds or less
- ▶ Excellent repeatability of ±0.5 % of full scale
- ▶ Full color display with continuous running chart (Different coloring for each operation), touch screen function
- ▶ Compact design with separate enclosures for electronics and analytics
- ▶ Firm and Non-effective cell (Acquisition of Patent)
- ▶ No supporting chemicals required
- ▶ Organization of lineup in accordance with explosion-proof rating

The Model: HC-1000 Oil in Water Analyzer is a result of combining the latest, state of the art technology with over 20 years of experience in building and servicing on-line analyzers package system. This unit utilizes a measurement chamber with a UV light source, which reacts with oils in water to determine the concentration of soluble oils without the use or consumption of supporting chemicals.

This cost-efficient design provides very simple, yet rugged construction.

The Model: HC-1000 demonstrates the perfection of on-line water measurements by having rapid measurement cycle without limiting accuracy, repeatability or reliability.

The Model: HC-2000 is designed and fitted as all features of HC-1000 and gives the option to the explosion-proof rating of a installing area.

The Model: HC-2000 is certificated by ATEX standardized for explosion-proof certification in Europe and is possible to measure safely under any environment.

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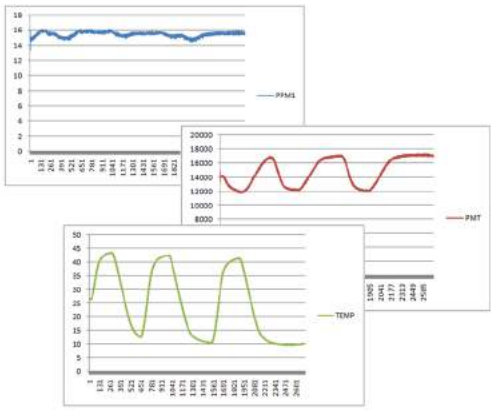
Operating Screen



Excel Chart from 30-Days Data

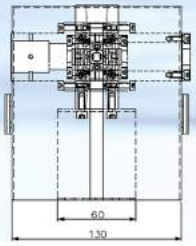
Principles

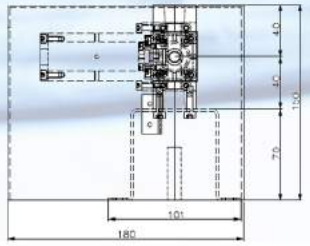
The measurement cycle is based on a UV light source reacting with the oils to cause fluorescence which is the detected and measured.
The sample is constantly flowing through a quarts cell (a peristaltic pump option is available for non-pressurized sample to provide flow). The operating principal quantifies the concentration of oil based on the fluorescence intensity measured by a photo-multiplier tube located perpendicular to the UV light path.

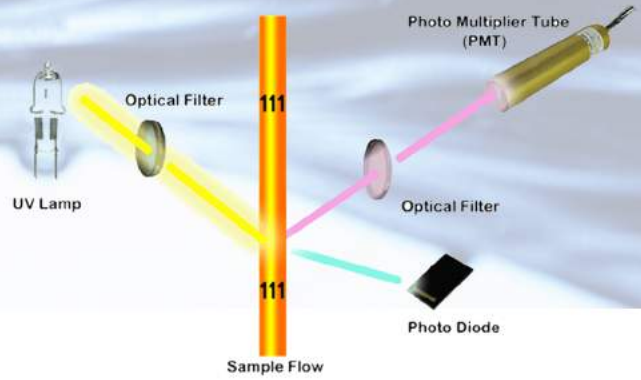
An auto-zero feature allows the analyzer to adjust turbidity, slow fouling or deterioration of light sources by resetting the baseline of the full light intensity.
The final concentration calculation is correlated to the florescence intensity of the sample based on a programmable correlation chart, which can be customized by the end-user. To further enhance the overall performance of the system, multi-band options are available to give the analyzer a broad measurement range.

Application

With growing public awareness and concern for controlling water pollution and enactment of the Clean Water Act in 1972 (amended in 1977) it has become increasingly important to continuously monitor the quantity of effluents in waste water prior to discharge.
Finding a method of obtaining accurate results in a cost effective way has plagued industrial companies because of the nature of the chemistry involved.
The development of photometric and spectroscopic techniques has proved an invaluable tool in the application of on-line effluents monitoring.
The removal of hazardous solution and high temperature applications coupled with fast response and high accuracy has brought the use of photometric correlation techniques to the forefront of waste and process water monitoring.







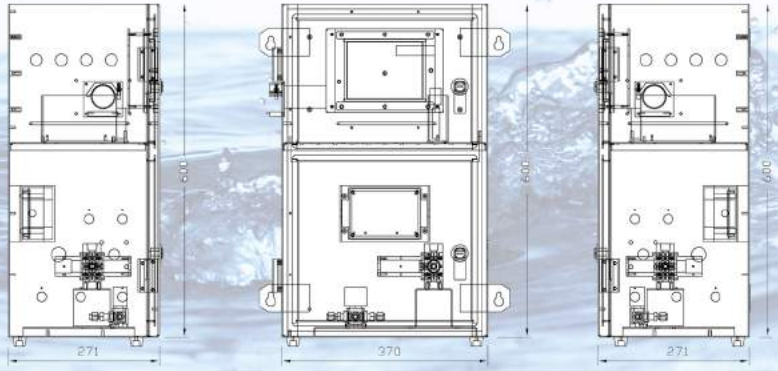
Specifications

ANALYSIS PERFORMANCE	
Measurement Cycle	Less 15 Seconds
Measurement Range	0-10 PPM, 0-20 PPM, 0-100 PPM, 0-200 PPM Oil In Water
Repeatability	±0.5 % of Full Scale
Accuracy	±1.0 % of Full Scale
SAMPLE REQUIREMENTS	
Sample Flow Rate	175ml/min
Sample Pressure	0~50 PSI (0~3.5 bar)
Sample Temperature	5~60 ℃
ENCLOSURE/INSTALLATION REQUIREMENTS	
Dimensions	Width 350mm, Height 710mm, Depth 275mm
Weight	Approximately 25 Kg
Operating Temperature	5~50 ℃
Enclosure	IP65
Area Classification	Safety Area of ATEX Zone 1&2 Group II (EEx px/pz II C T4) - Certified in June 2009
Power	110 & 220 VAC (±10%), 50/60 Hz, Single Phase. 2A
END USER CONNECTIONS	
Analogue Output	Singal Isolated 4~20mA Output(Second output option for system warning, measurement indication)
Digital Output	4 Relays, DPDT for Process & Fault Alarm
RS-232C Serial Port	Raw Value Monitoring

Optional Systems

- Purge Enclosure System (Ex p II T4)
- BTX Specialized Filtering System
- Auto-cleaning Sampling System
- Sample Cooler

Analyzer Layout & Certificate



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