LABTECH

Online Oil-in-Water Analyser

AC6900
AS6900D

Function

Industrial online oil-in-water monitor is an online water quality monitor and control instrument with microprocessor. The instrument is equipped with UV oil-in-water sensors. The online oil-in-water monitor is a highly intelligent online continuous monitor. It can be equipped with UV sensor to automatically achieve a wide range of ppm or mg/L measurement. It is a special instrument for detecting oil-in-water content in liquids in environmental protection sewage related industries.

Typical Use

The on-line oil in water analyzer consists of an immersion sensor and a multi-function display. High precision immersion probe was used to measure oil substances in water, and uv fluorescence technology was used. It is suitable for surface water oil pollution monitoring, industrial process control, oil leak detection and other online water quality monitoring and so on.
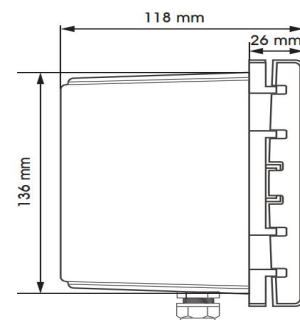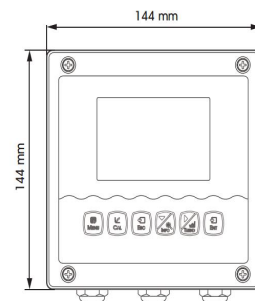
Mains Supply

85~265VAC±10%,50±1Hz power ≤3W;

9~36VDC,power consumption≤3W;

Measuring Range

Oil-in-water 0~50mg/L 0~50ppm;

Customizable measuring range, displayed in ppm unit.

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AC6900

Controller Features

1. Large display, standard 485 communication, with online and offline alarm, 144*144*118mm meter size, 138*138 mm hole size, 4.3 inch large screen display.

2. UV light source electrode adopts optical physics principle, no chemical reaction in the measurement, no influence of bubbles, aeration/anaerobic tank installation and measurement are more stable, maintenance-free in the later period, and more convenient to use.

3. The data curve recording function is installed, the machine replaces the manual meter reading, and the query range is arbitrarily specified, so that the data is no longer lost.

4. Carefully select materials and strictly select each circuit component, which greatly improves the stability of the circuit during long-term operation.

5. The new choke inductance of the power board can effectively reduce the influence of electromagnetic interference, and the data is more stable.

6. The design of the whole machine is waterproof and dustproof, and the back cover of the connection terminal is added to extend the service life in harsh environments.

7. Panel/wall/pipe installation, three options are available to meet various industrial site installation requirements.
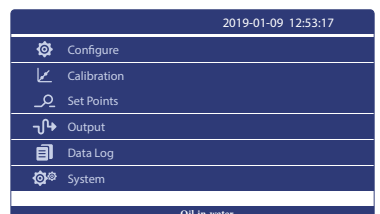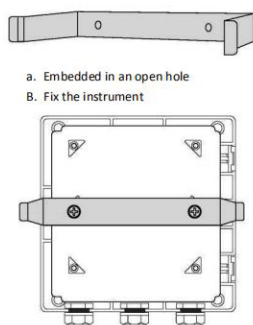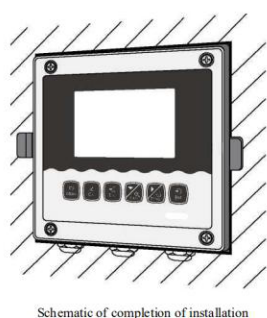
Measurement mode
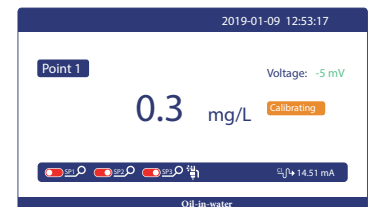
Calibration mode
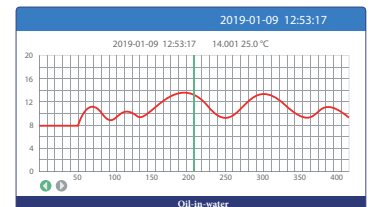
Trend chart

Setting mode

Electrical Connections

Electrical connection The connection between the instrument and the sensor: the power supply, output signal, relay alarm contact and the connection between the sensor and the instrument are all inside the instrument. The length of the lead wire for the fixed electrode is usually 5-10 meters, and the corresponding label or color on the sensor Insert the wire into the corresponding terminal inside the instrument and tighten it.

Instrument Installation Method

Embedded installation
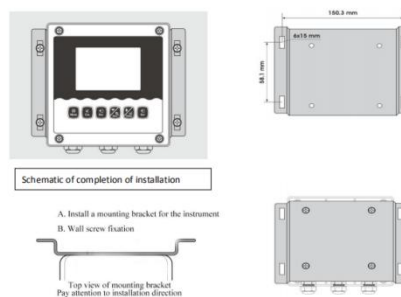
Wall mount

Technical Specifications

Measurement range	0~500.00mg/L; 0~500.00ppm
Measurement unit	mg/L; ppm
Resolution	0.01mg/L; 0.01 ppm
Basic error	±3%FS
Temperature	-10~150 ℃
Temperature Resolution	0.1 ℃
Temperature Basic error	±0.3 ℃
Current Output	4~20mA,20~4mA,(load resistance<750Ω)
Communication output	RS485 MODBUS RTU
Relay control contacts	5A 240VAC,5A 28VDC or 120VAC
Power supply (optional)	85~265VAC,9~36VDC,power consumption≤3W
Working conditions	No strong magnetic field interference around except the geomagnetic field.
Working temperature	-10~60 ℃
Relative humidity	≤90%
IP rate	IP65
Instrument Weight	0.8kg
Instrument Dimensions	144×144×118mm
Mounting hole dimensions	138*138mm
Installation methods	Panel,Wall mounted,pipeline

Digital Oil Sensor Series

AS6900D

Review

Commonly used oil-in-water detection methods include suspensi on method (D/λ<=1), infrared spectrophotometry(not suitable for low range), ultraviolet spectrophotometry (not suitable for high range), etc. The online oil-in-water sensor adopts the principle of fluoresc ence method. Compared with several commonly used methods, the fluorescence method is more efficient, quicke r and more reproducible, and can be monitored online in real time. The sensor has better repeatability and st ability. With an automatic cleaning brush, it can eliminate air bubbles and reduce the impact of contaminati on on the measurement, making the maintenance cycle longer, and maintaining e xcellent stability during long-term online use. It can act as a n early warning to the pollution of oil in water.

The ultraviolet fluorescence method is used to monitor the oil content in the water body, and the oil concentration in the water body is quantitatively analyzed based on the fluorescence intensity emitted by the petroleum and its aromatic hydrocarbon compounds and compounds containing conjugated double bonds after absorbing ultraviolet light. Aromatic hydrocarbons in petroleum can produce fluorescence under the excitation of ultraviolet light, and the value of oil in water can be calc ulated according to the intensity of fluorescence.

Features

Digital sensor, MODBUS RS-485 output,
With automatic cleaning brush to eliminate the influence of greasy dirt on the measurement.
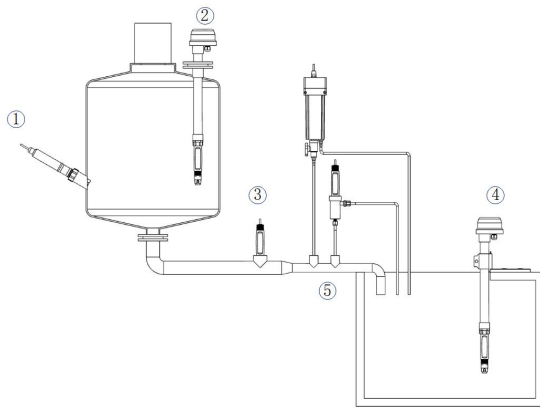Unique optical and electronic filtering technology, not affected by suspended particles in water
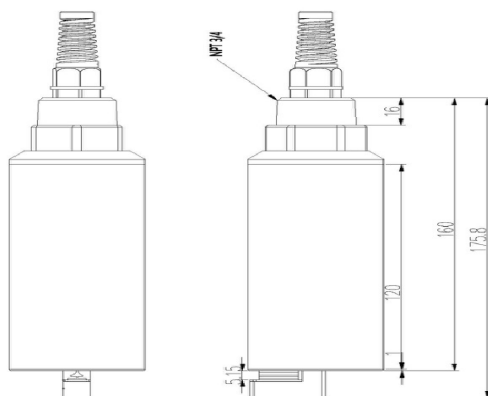
Wiring
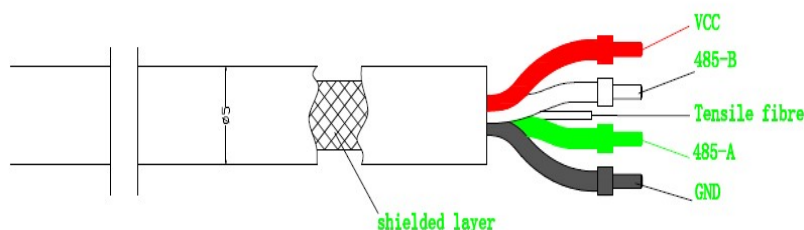
Waterproof IP68

Adopt PTFE large ring
diaphragm, long life time

Installation

（Common electrode installation）

Installed base

Waterproof cap

length 1 meter

Outer diameter 2mm

6 inner thread

（Mounting brackets）

（Overall dimension drawing）

AS6900D   Digital Oil Sensor

Model No.	**AS6900D**
Power/Outlet	5~12VDC/RS485 MODBUS RTU
Measure Principle	Fluorescence
Dimensions	φ45*175.8mm
Housing material	316L Stainless steel
Waterproof rating	IP68
Measurement range	0-50ppm or 0~0.40FLU
Resolution	0.01ppm
Accuracy	±3% F.S
Pressure resistance	≤0.3Mpa
Measuring Temperature	0-50℃
Calibration	Sample calibration, standard liquid calibration
Cable length	Standard 10m cable, can be extended to 100m
Installation thread	G3/4
Application	General application,river,lake,environmental protection etc.