POIL-800 Oil In Water Online Analyzer

Measurement Principle



The POIL-800 oil-in-waterOnline Analyzer uses ultraviolet fluorescence to monitor the oil content in water. It quantitatively analyzes the concentration of oil in water based on the fluorescence intensity emitted by petroleum and its aromatic compounds and conjugated double bond compounds after absorbing ultraviolet light. Aromatic hydrocarbons in petroleum can produce fluorescence under ultraviolet light excitation, and the value of oil in water is calculated based on the intensity of fluorescence.

Features

- Advanced optical monitoring method, no reagents, no dilution, long-term stable operation;
- Short response time, continuous measurement;
- LED light source, small size, low power consumption, easy on-site integration;
- The sensor has an automatic cleaning function to reduce maintenance;
- Unique optical and electronic filtering technology to eliminate the influence of ambient light;
- Wide operating range and high sensitivity;
- All-metal casing, sturdy and durable.

Applications

- Real-time online monitoring of oil in water in water treatment systems and wastewater discharge in industrial fields such as petroleum, chemical industry, and electric power;
- Real-time online monitoring of oil in water in environmental water bodies such as surface water, groundwater, seawater, drinking water, and pollution source emission control.

Technical Specifications

Measuring range	0~100mg/L(NDSA)
Measuring accuracy	Less than ±5% of the measured value or ±0.15mg/L, the bigger one
Repeatability	±2%
Resolution	0.01mg/L
Pressure range	≤0.4Mpa
Calibration	Sample calibration, slope calibration
Main material of sensor	Body: SUS316L (normal version), titanium alloy (seawater version); Cable: PUR
Power supply	AC：85-500VAC，DC：9~36VDC
Output	3-way 4-20mA
Relay	Three-way relays, programmed response parameter and response value.
Communication protocol	MODBUS RS485
Storage temperature	-15-50℃
Operating temperature	0-45℃ (no freezing)
Dimensions	Sensor：Diameter 60mm*Length 262mm
Weight	Sensor：2.1KG；Transmitter：1.35KG
Protection level	Sensor：IP68/NEMA6P；Transmitter：IP66/ NEMA4X
Cleaning method	Automatic scraper cleaning
Cable length	Standard 10m cable, can be extended to 100m