POIL-500 Oil in Water On-line Analyzer

Measurement Principle

POIL-500 online analyzer for oil in water, adopts UV fluorescence method to monitor the oil content in the water, and quantitatively analyzes the concentration of oil in the water according to the fluorescence intensity emitted by the absorption of UV light by petroleum and its aromatic hydrocarbon compounds and the compounds containing conjugated double bonds.



Features

- Advanced optical monitoring method with no reagents, no dilution and stable long-term operation.
- Short response time for continuous measurement.
- A light source using LED's with small size and low power consumption for easy field integration.
- The sensor has an automatic cleaning function, which reduces maintenance unique optical and electronic light filtering technology to eliminate the influence of ambient light.
- Sensors are easy and quick to install in the field, realizing plug and play.
- With time display, data storage and historical data view function.
- Optional data wireless transmission module.

Applications

- Real-time online monitoring of oil in industrial process water in petrochemical industry, shipbuilding industry, metallurgical industry, iron and steel manufacturing, etc;
- Real-time online monitoring of oil in environmental water such as surface water, ocean, pollution source emission control, etc.

Technical Specifications

Measurement range	0-50 ppm
Detection limit	Determined by the actual oil sample
Linearity	$R^2 > 0.999$
Resolution	0.01 ppm
Calibration	Sample calibration, slope calibration
Sensor Material	Body: SUS316L, titanium alloy; Cable: PUR
Power supply	AC power supply: 85-500VAC; DC power supply: 9-36VDC
Outputs	3-way 4-20mA
Relay	Three relays, programmable response parameters and response values
Communication Protocols	MODBUS RS485
Storage Temp.	-15 to 50℃
Operating Temp.	0 to 50℃ (No ice)
Dimensions	Sensor: Diameter 45*Length 191mm ;Transmitter: 145*125*162mm (L*W*H)
Weight	Sensor: 0.65KG; Transmitter: 1.35KG
Pressure range	≤0.1Mpa
Protection class	Sensor：IP68/NEMA6P；Transmitter：IP66/ NEMA4X
Power consumption	0.3W(Measuring)/1.0W(Scrubbing) Max
Cleaning method	Automatic brush cleaning
Assembly	NPT 3/4 thread, drop-in installation
Cable length	Standard 10m cable, cable can be extended up to 50m (when the cable length reaches 50m, the input voltage should be 12V to satisfy)

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