

KWS-1000 Online Oil-In-Water Sensor

Introduction

Kacise online water sensor uses the principle of fluorescence. Compared with several commonly used methods, the fluorescence method is more efficient and quicker, and can be monitored online in real time. The sensor has better repeatability and stability. Optional with an automatic cleaning brush, it eliminates air bubbles, reduces the effects of contamination on the measurement, makes the maintenance cycle longer, and maintains excellent stability for long-term online use. It can play an early warning role on oil pollution in water.



Principle

The oil content in the water body was monitored by ultraviolet fluorescence method, and the oil concentration in the water body was quantitatively analyzed according to the fluorescence intensity of the oil and its aromatic hydrocarbon compound and the conjugated double bond compound absorbing ultraviolet light. The aromatic hydrocarbons in the petroleum form fluorescence under the excitation of ultraviolet light, and the value of the oil in the water is calculated according to the intensity of the fluorescence.

Feature

- Digital sensor, RS-485 output, support MODBUS
- Optional automatic cleaning brush to eliminate the impact of oil on the measurement
- Eliminate the impact of ambient light on measurements with unique optical and electronic filtering techniques
- It is not affected by suspended solids in water

Technical Specifications

Item	Without wiper	Without wiper (in multi-probe type)	With wiper
Model	KWS-1001	KWS-1002	KWS-1003
Measuring Range	0-50ppm		
Principle	fluorescence method		
Resolution	0.01ppm		
The detection limit	According to actual oil sample		
Linearity	$R^2 > 0.999$		
IP Grade	IP68		
Max. pressure	6 bar		

Temperature Range	0~50°C		
Output	RS485, Modbus		
Installation	Submersible		
Dimension	Φ22*175.5mm	Φ22*165.6mm	Φ45*190.8mm
Installation	M22*1.5 (optional accessories can be converted to NPT3/4 thread)	Connect with multi-probe sensor female NPT3/4 thread	NPT3/4 thread
Power Supply	DC9-24V, current<50mA		DC5-12V, current<100mA
Material	Titanium		316L/Titanium
Cable Length	Standard 10m, customizable		
Casing Material	316L (titanium alloy customizable)		

Dimensions

