

UV FLUORESCENCE SENSOR

Controllers

Sensors

Analysers

Samplers

Flow

Level

Pressure

Web remote
controlData
logging

Accessories



UV PAH, oil-in-water using UV fluorescence is the new generation of immersion sensors for measurement of oil-in-water.

The used measuring principle of UV fluorescence is many times more sensitive than the conventionally used infrared scattering or absorption process. This makes it possible to determine even the slightest traces of PAH's, such as in drinking water, but also in cooling water condensates.

Application areas include the petrochemical industry, leakage detection in cooling and wastewater streams as well as environmental monitoring.

The devices enable both stationary use in shafts, flows or piping, and mobile use through an optional hand-held measuring instrument.

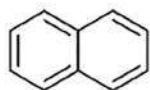
An innovative coating reduces fouling of the optical measuring window and minimizes the maintenance required.

Benefits

- Without sampling and preparation of test samples
- Real time sensor
- Without reagents
- High sensitivity and selectivity
- Optical window with nano coating

Applications

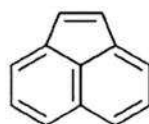
- Drinking water
- Wastewater
- Airports
- Cooling water
- Desalination plants
- Refineries
- Pipeline monitoring
- Bilge water monitoring
- Exhaust gas cleaning with approval for ship use according to IMO regulation MEPC.184(59)



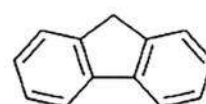
1. Naphthalene



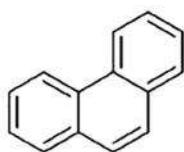
2. Acenaphthene



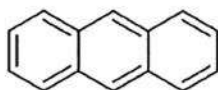
3. Acenaphthylene



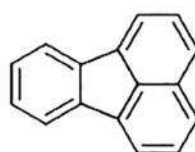
4. Fluorene



5. Phenanthrene



6. Anthracene



7. Fluoranthene



8. Pyrene

Technical Specifications

Measurement technology	light source	Xenon flash lamp + filter (254 nm)
	detector	Photo diode + filter (360 nm)
Measurement principle		Fluorescence
Parameter		PAH, Oil
Measuring range	500 version	PAH: 0...50 ppb, 0...500 ppb / Oil: 0...1.5 ppm, 0...15 ppm typical
	5000 version	PAH: 0...500 ppb, 0...5000 ppb / Oil: 0...15 ppm, 0...150 ppm typical
Measurement accuracy		500 version 0.3 ppb / 5000 version 0.5 ppb
Turbidity compensation		No
T100 response time		≤ 10 s
Measurement interval		≤ 5 s
Housing material		SS (1.4571 / 1.4404) or titanium (3.7035)
Dimensions (L x Ø)		311 mm x 68 mm
Weight	SS	~ 2.7 kg
	titanium	~ 1.9 kg
Interface	analog	4...20 mA
Power consumption		≤ 3.5 W
Power supply		12...24 VDC (± 10 %)
Maintenance effort		Typically ≤ 0.5 h/month
Calibration/maintenance interval		24 months
Signal interface		Analog Out 4...20 mA

Installation

Max. pressure	with SubConn	30 bar
	with fixed cable	3 bar
	in FlowCell	1 bar, 2-4 L/min
Protection type		IP68
Sample temperature		2...40 °C
Ambient temperature		-5...55 °C (0...40 °C for specified accuracy)
Storage temperature		-20...80 °C
Inflow velocity		0.1...10 m/s