enviroFlu

30SXXXXX0

PAH, oil-in-water using UV fluorescence

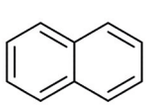
enviroFlu-HC is the new generation of immersion sensors for measurement of oil-in-water. The used measuring principle of UV fluorescence is many times more sensitive than the conventionally used infrared scattering or absorption process. This makes it possible to determine even the slightest traces of 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

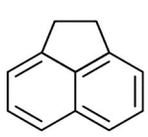
- Without sampling and preparation of test samples
- Real time sensor
- Without reagents
- High sensitivity and selectivity
- Optical window with nano coating

Applications

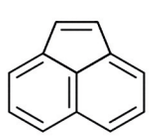
- Drinking water
- Wastewater
- Airports
- Cooling water
- Desalination plants
- Refineries
- Pipeline monitoring
- Bilge water monitoring
- Exhaust gas cleaning with approval for ship use according to IMO regulation MEPC.184(59)



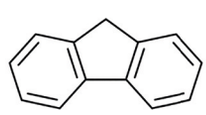
1. Napthalene



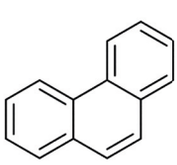
2. Acenaphthene



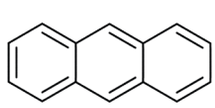
3. Acenaphthylene



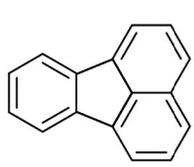
4. Fluorene



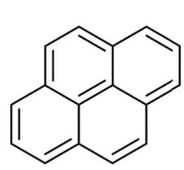
5. Phenanthrene



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	enviroFlu-HC 500	PAH: 0...50 ppb, 0...500 ppb Oil: 0...1.5 ppm, 0...15 ppm typical
	enviroFlu-HC 5000	PAH: 0...500 ppb, 0...5000 ppb Oil: 0...15 ppm, 0...150 ppm typical
Measurement accuracy		enviroFlu-HC 500 0.3 ppb
		enviroFlu-HC 5000 0.5 ppb
Turbidity compensation		No
Data logger		No
T100 response time		≤ 10 s
Measurement interval		≤ 5 s
Housing material		Stainless steel (1.4571/1.4404) or titanium (3.7035)
Dimensions (L x Ø)		311 mm x 68 mm
Weight	stainless steel	~ 2.7 kg
	titanium	~ 1.9 kg
Interface	digital	RS-232 (TriOS)
	analog	4...20 mA, 0...5 V
Power consumption		≤ 3.5 W
Power supply		12-24 VDC (± 10 %)
Maintenance effort		Typically ≤ 0.5 h/month
Calibration/maintenance interval		24 months
System compatibility		Analog Out (0...5 VDC, 4...20 mA)
Guarantee		1 year (EU: 2 years)

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