

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 much more sensitive than the conventionally used infrared scattering or absorption method. This allows to determine even the slightest traces of PAH's, for example in drinking water and 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.

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)



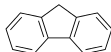
Naphtalene



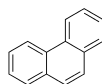
Acenaphthylene



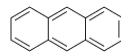
Acenaphthene



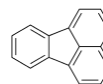
Fluorene



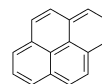
Phenanthrene



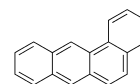
Anthracene



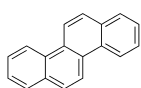
Fluoranthene



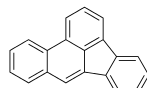
Pyrene



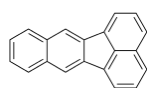
Benzo[a]anthracene



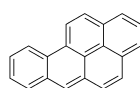
Crysene



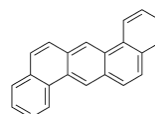
Benzo[b]fluoranthene



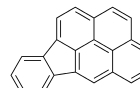
Benzo(k)fluoranthene



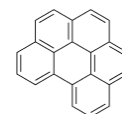
Benzo[a]pyrene



Dibenzo(a,h)anthracene



Ideno(1,2,3-c,d)pyrene



Benzo(g,h,i)perylene

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	
Detection limit		enviroFlu-HC 500 0.3 ppb enviroFlu-HC 5000 0.5 ppb	
Measurement accuracy		± 5 % FS	
Reproducibility		≤ 0,5 % FS	
Turbidity compensation		No	
Data logger		No	
T100 response time		≤ 10 s	
Measurement interval		≥ 5 s	
Material	Housing	Stainless steel (1.4571/1.4404) or titanium (3.7035)	
	Head	POM black with synthetic quartz glass	
Dimensions (L x Ø)		311 mm x 68 mm	~12.2" x 2.6"
Weight	stainless steel	~ 2.7 kg	~ 6 lbs
	titanium	~ 1.9 kg	~ 4.2 lbs
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		≤ 0.5 h/month (typical)	
Calibration/maintenance interval		24 months	
System compatibility		Analog Out (0...5 VDC, 4...20 mA)	
Warranty		1 year (EU: 2 years)	US: 2 years

INSTALLATION

Max. pressure	with SubConn	30 bar	~ 435 psig
	with fixed cable	3 bar	~ 43.5 psig
	in FlowCell	1 bar, 2...4 L/min	~ 14.5 psig, 0.5 to 1 gpm
	Deepsea version	600 bar	
Protection type		IP68	NEMA 6P
Sample temperature		+2...+40 °C	~ +36 °F to +104 °F
Ambient temperature		-5...+55 °C (2...+40 °C for specified accuracy)	~ +23 °F to +131 °F (~ 35,6 °F to 104 °F for specified accuracy)
Storage temperature		-20...+80 °C	~ -4 °F to +176 °F
Inflow velocity		0.1...10 m/s	~ 0.33 fps to 33 fps
Max. immersion depth	300 m with SubConn-8pin underwater plug		~ 984.25 ft with SubConn-8pin underwater plug
	30 m with fixed cable		~ 98.43 ft with fixed cable
	optional: 6000 m Tiefsee Version		optional: ~ 19685.04 ft deepsea version