

# 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)



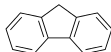
Naphtalene



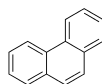
Acenaphthylene



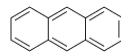
Acenaphthene



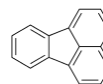
Fluorene



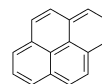
Phenanthrene



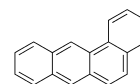
Anthracene



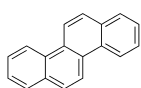
Fluoranthene



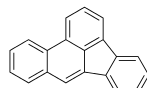
Pyrene



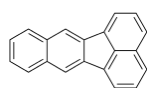
Benzo[a]anthracene



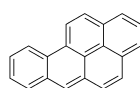
Crysene



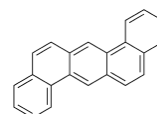
Benzo[b]fluoranthene



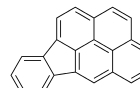
Benzo(k)fluoranthene



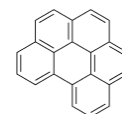
Benzo[a]pyrene



Dibenzo(a,h)anthracene



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



Benzo(g,h,i)perylene

## Technical Specifications

<b>Measurement technology</b>	light source	Xenon flash lamp + filter (254 nm)	
	detector	Photo diode + filter (360 nm)	
<b>Measurement principle</b>		Fluorescence	
<b>Parameter</b>		PAH, oil	
<b>Measuring range</b>	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	
<b>Detection limit</b>		enviroFlu-HC 500 0.3 ppb enviroFlu-HC 5000 0.5 ppb	
<b>Measurement accuracy</b>		± 5 % FS	
<b>Reproducibility</b>		≤ 0,5 % FS	
<b>Turbidity compensation</b>		No	
<b>Data logger</b>		No	
<b>T100 response time</b>		≤ 10 s	
<b>Measurement interval</b>		≥ 5 s	
<b>Material</b>	<b>Housing</b>	Stainless steel (1.4571/1.4404) or titanium (3.7035)	
	<b>Head</b>	POM black with synthetic quartz glass	
<b>Dimensions (L x Ø)</b>		311 mm x 68 mm	~12.2" x 2.6"
<b>Weight</b>	stainless steel	~ 2.7 kg	~ 6 lbs
	titanium	~ 1.9 kg	~ 4.2 lbs
<b>Interface</b>	digital	RS-232 (TriOS)	
	analog	4...20 mA, 0...5 V	
<b>Power consumption</b>		≤ 3.5 W	
<b>Power supply</b>		12...24 VDC (± 10 %)	
<b>Maintenance effort</b>		≤ 0.5 h/month (typical)	
<b>Calibration/maintenance interval</b>		24 months	
<b>System compatibility</b>		Analog Out (0...5 VDC, 4...20 mA)	
<b>Warranty</b>		1 year (EU: 2 years)	US: 2 years

## INSTALLATION

<b>Max. pressure</b>	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	
<b>Protection type</b>		IP68	NEMA 6P
<b>Sample temperature</b>		+2...+40 °C	~ +36 °F to +104 °F
<b>Ambient temperature</b>		-5...+55 °C (2...+40 °C for specified accuracy)	~ +23 °F to +131 °F (~ 35,6 °F to 104 °F for specified accuracy)
<b>Storage temperature</b>		-20...+80 °C	~ -4 °F to +176 °F
<b>Inflow velocity</b>		0.1...10 m/s	~ 0.33 fps to 33 fps
<b>Max. immersion depth</b>		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