

microFlu HC

37S80XX13



microFlu HC is an immersion probe for measuring oil in water. The measuring principle of UV fluorescence used is many times more sensitive and specific than the conventionally used infrared scattering or absorption methods. This makes it possible to determine even small traces of PAHs, e.g. in drinking water, but also in cooling water condensates. The field of application ranges from petrochemistry, leakage detection in cooling and waste water streams to environmental monitoring. The instruments can be used stationary in manholes or in flow-through, as well as in pipelines. A nano coating reduces the contamination of the optical measuring windows and thus reduces the required maintenance to a minimum.

microFlu HC is equipped with an RS-485 interface that allows easy and fast sensor configuration via Modbus and also has an analog interface. Integration with existing process control systems and external data loggers has never been easier.

Advantages

- without sampling and sample preparation
- without delay
- without reagents
- high sensitivity and selectivity
- optical windows with nano coating

Applications

- Surface waters
- Drinking water
- Waste water
- Airports
- Cooling water
- Desalination plants
- Refineries / Gas stations
- Seepage ditch (road run-off water)
- Pipeline monitoring
- Bilge water monitoring

Technical specifications

Measurement technology	Light source	LED 255 nm
	Detector	Photo diode + Filter 360 nm
Measurement principle		Fluorescence
Parameters		PAH, Oil in water

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Measurement range		PAH: 0–5000 µg/L	PAH: 0–5000 ppb
		Oil in water: 0–150 mg/L*	Oil in water: 0–150 ppm typ.*
Detection limits		PAH: 5 µg/L	PAH: 5 ppb
		Oil in water: 0.15 mg/L*	Oil in water: 0.15 ppm typ.*
Measurement accuracy		± (10 % + detection limit)	
Resolution		< 0.3 µg/L	
Sensitivity		2 µg/L	
Temperature compensation		No	
Turbidity compensation		No	
Data logger		No	
Response Time (T90)		6 s (default)	
Smallest measuring interval		3 s (default)	
Cross-sensitivity		Turbidity, DOM	
Interface	digital	RS-485, Modbus RTU	
	analog	4 .. 20 mA (default), max load: 500 Ohm alternatively: 0–5 V, min. load 1 kOhm alternatively: 0–10 V, min. load 1 kOhm	
Power consumption	typical	max. 0.6 W	
	with activated analog interface	max. 1.1 W	
	Power-Down	max. 70 mW	
Power supply		12–24 VDC (± 10 %)	
Required supervision		≤ 0.5 h/month typical	
Calibration/ Maintenance interval		24 months	
Warranty		1 year (EU & USA 2 years)	
Housing material		Stainless steel (1.4571/1.4404) or titanium (3.7035)	
Dimensions (L x Ø)		~ 162 mm x 48 mm	~ 6.4" x 1.9"
Weight	VA	~ 650 g	~ 1.4 lbs
	TI	~ 510 g	~ 1.1 lbs
Max. pressure	with Subconn	30 bar	~ 435 psig
	with fixed cable	3 bar	~ 43.5 psig
	in flow cell	1 bar, 2...4 L/min	~ 14.5 psig, 0.5 to 1 gpm
Protection type	Sensor side	IP68	NEMA 6P
	Controller side	IP65/IP67	NEMA6
Operating height		max. height 2000 m	6562 ft

*Dependent on the type of oil

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Operating conditions:			
Ambient temperature		+2...+40 °C	~ +36 °F...+104 °F
Sample temperature	insitu	+2...+40 °C	~ +36 °F...+104 °F
	in FlowCell	+2...+40 °C	~ +36 °F...+104 °F
Relative humidity		0...95 %, non-condensing	
Storage conditions		-20...+80 °C	~ -4 °F...+176 °F
Relative humidity		0...95 %, non-condensing	
Transport conditions		Such as storage conditions	
Inflow velocity		0,1...10 m/s	~ 0.33 ...33 fps