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 method. This makes it possible to determine even small traces of PAHs, e.g. in drinking water, but also in cooling water condensates. Applications range from petrochemicals, leakage detection in cooling and waste water streams to environmental monitoring. The devices can be used both stationary in manholes or in the flow as well as in pipelines. A nano coating reduces soiling of the optical measuring windows and thus minimizes the maintenance required.

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

Advantages

- Without sampling and sample preparation
- Delay-free
- Without reagents
- High sensitivity and selectivity
- Optical windows with nano coating

Applications

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

TriOS Mess- und Datentechnik GmbH · Bürgermeister-Brötje-Str. 25 · D-26180 Rastede · Germany
Tel: +49 (0) 4402 69670 - 0 · Fax: +49 (0) 4402 69670 - 20 · info@trios.de · www.trios.de

Technical specifications

Measurement technology	**Light source**	LED 255 nm
	Detector	Photodiode + filter 360 nm
Measuring principle		Fluorescence
Parameters		PAH, oil in water
Measuring range		PAH: 0...5000 µg/L
		Oil in water: 0...150 mg/L (typ. - depending on the type of oil)
Detection limit		PAH: 5 µg/L
		Oil in water: 0.15 mg/L (typ. - depending on the type of oil)
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 sensitivities		Turbidity, DOM
Interface	**digital**	RS-485, Modbus RTU
	analog	4 .. 20 mA (default), max. load: 500 Ohm
		alternative: 0 - 5 V, min. load 1 kOhm
		alternative: 0 - 10 V, min. load 1 kOhm
Power consumption	**typical**	max. 0.6 W
	with activated analog interface	max. 1.1 W

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	Power-down	max. 70 mW	
Power supply		12 - 24 VDC (± 10 %)	
Connection		SubConn 8pin or fixed cable with M12 connector	
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
System compatibility		TriBox3, TriBox mini, Modbus RTU	
Max. pressure	**with Subconn**	30 bar	~ 435 psi
	with fixed cable	3 bar	~ 43.5 psi
	in FlowCell	1 bar, 2...4 L/min	~ 14.5 psi, 0.5 to 1 gpm
Degree of protection	**Sensor side**	IP68	NEMA 6P
	Controller side	IP65/IP67	NEMA 4/NEMA 6
Operating altitude		max. altitude 2000 m	6562 ft
Sample temperature		+2...+40 °C in situ +2...+40 °C FlowCell	~ +36 to +104 °F in situ ~ +36 to +104 °F FlowCell
Ambient temperature		+2...+40 °C	~ +36 to +104 °F
Storage temperature		-20...+80 °C	~ -4 to +176 °F
Relative humidity		0...95 %, non-condensing	
Transportation conditions		see storage temperature	
Inflow velocity		0.1...10 m/s	~ 0.33 to 33 fps
Maintenance effort		≤ 0.5 h/month typical	
Calibration/maintenance interval		24 months	
Warranty		1 year (EU & USA 2 years)	

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