Multisensor

VOC
BTEX
FUEL OILS
PAH

MS1220-S | Oil in Water Analyzer | 1 - 200 ppm

The MS1220-S is a **high concentration oil in water analyzer** designed to monitor water in industrial and petrochemical processes. The presence of pollutants such as BTEX, trichloroethylene (TCE), tetrachloroethylene (PCE or Perc), vinyl chloride, 1,2-dichloroethane, 1,1,1-Trichloroethane, 1,1-dichloroethylene, styrene can lead to heavy fines and process contamination. The instrument works by sensing gases or volatiles to provide a non-contact measurement system with very low maintenance requirements.

APPLICATIONS

- Refineries and petrochemical industries
- Monitoring of industrial outflows
- Management of drain and stormwater systems
- Detection of fuel pollution in surface water
- Industrial wastewater monitoring
- Oil detection in cooling water

FEATURES AND BENEFITS

- Wide measuring range up to 200 ppm
- Contactless measurement
- Not affected by turbidity
- Detects VOCs, BTEX, fuel oils and PAH
- Relay control of users' pumps and valves
- Powerful diagnostics
- Versatile communication protocols

- ✓ Continuous monitoring
- ✓ Long sensor lifetime: 5+ years*
- ✓ Low operating and maintenance costs
- ✓ Ideal for the Oil&Gas sector
- ✓ Low maintenance, no sensor cleaning
- ✓ Insensitive to turbidity
- ✓ Field proven technology

TECHNICAL SPECIFICATION

PARAMETER	OPERATIONAL REQUIREMENTS		NOTES
	MINIMUM	MAXIMUM	
Detection Range	1 ppm	200 ppm	Total VOCs
4-20 mA Range (Default)	0 ppm	200 ppm	Configurable on commissioning
Repeatability	-5%	+5%	+/-15% from 20 to 100 ppm, measured with a 50 ppm toluene solution at standard temperature and pressure; accuracy can be further improved at concentration of interest, using bespoke calibration available on request.
Accuracy	-15%	+15%	
Measurement frequency	Continuous		
Ambient Temperature	0 °C	50 °C	Climate control might be needed depending on process and ambient conditions
Water Temperature	1 °C	50 °C	
Analog Input	4 mA	20 mA	Scalable to range required, max load 750 Ω, loop powered or instrument powered
Analog Output	4 mA	20 mA	
Analog Output Isolation	5 kVAC, 400 VDC		
Relay Current		5 A	Max. 250 VAC or 30 VDC; 3x: Alarm 1, 2 and Fault Relays with NO and NC contacts
Interface	Touchscreen		With advanced reporting capabilities
Communication Protocols	Modbus (*Optional*)		Profibus / HART / Foundation Fieldbus on request
Data Storage	µSD Card / Windows PC		
Instrument Case	IP65		Powder coated stainless steel
System Weight	30 kg		
Sampling Tank	316 Stainless Steel		
Flow Limit Switch			Option available on request
Water Flow Rate	2 l/min		
System Dimensions	450 x 200 x 680 mm		
Supply Voltage	90 VAC	240 VAC	50 Hz or 60 Hz
Power Consumption		25 W	

*Under standard operating conditions

CONSUMABLES

6 Months: Filters and restrictors

SERVICE

Service is necessary every 6 months to keep the instrument operating in optimal conditions. Air Pump replaced every 18-36 months as required. Service should be carried out by a trained technician who has undergone the standard Multisensor Systems training course.

British Assessment Bureau
UKAS MANAGEMENT SYSTEMS 8289
ISO 9001
QUALITY MANAGEMENT

CE UKCA

HEAD OFFICE (UNITED KINGDOM)

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Multisensor

Multisensor Systems is a developer and supplier of Water and Gas Analysers specialising in oil in water and hydrocarbon analysers, oil in water detectors, VOC monitors and THM analyzers based in the United Kingdom.

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CHANGELOG

MSS DOCUMENT CHANGE RECORD

DOCUMENT REF 1-000433

DATE	VERSION	CHANGED BY	CHECKED BY	ECN REF
19/09/2025	1.0	GO	LR	0925-03
23/09/2025	1.1	GO	LR	0925-04
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