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sensing measuring protecting

VOC BTEX FUEL OILS PAH

MS1900 | Oil in Water Analyser

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The MS1900 is an industrial oil in water analyser designed to monitor the outflows from industrial facilities, water in industrial processes and to detect fuels and other VOCs in drains and waste water networks. The instrument works by sensing gases or volatiles to provide a non-contact measurement system with very low maintenance requirements.

APPLICATIONS

- Monitoring of industrial outflows
- Monitoring of cooling water systems
- Monitoring of drain and storm water systems
- Detection of fuel pollution in surface water
- Protection of desalination plants
- Refineries and petrochemical

FEATURES AND BENEFITS

- Accurate down to 0.1 ppm concentrations
- Contactless measurement
- Not affected by turbidity
- Detects fuel oils, PAH, VOCs and BTEX
- Continuous measurement

✓ Continuous monitoring
✓ Low operating and maintenance costs
✓ Monitors for oil leaks
✓ Low maintenance, no sensor cleaning
✓ Insensitive to turbidity
✓ Ideal for process water

TECHNICAL SPECIFICATION

PARAMETER	OPERATIONAL REQUIREMENTS		NOTES
	MINIMUM	MAXIMUM	
Detection Range	0.1 ppm	20 ppm	
Output Range (Default)	0 ppm	20 ppm	Configurable on commissioning
Repeatability	-2%	+2%	See Note 1
Accuracy	-15%	+15%	See Note 1
Measurement frequency	Continuous		15, 20, 30, 60 minutes modes available on request
Ambient Temperature	0 °C	40 °C	See Note 2
Water Temperature	1 °C	40 °C	See Note 2
Analogue Output	4 mA	20 mA	Scalable to range required, max load 900 Ω
Analogue Output Isolation	400 V DC		
Relay Voltage		50 V	Alarm and Fault Relays with NO contacts
Relay Current		5 A	
Service Interface	USB-A to PC		Using Multisensor Software provided
Data Storage	µSD Card		6 months
Instrument Case	IP65		
Instrument Weight	5 kg		
Instrument Dimensions	300 x 200 x 132 mm		
Sampling Chamber Material	Stainless Steel		Optional: PVC
Sampling System Weight	12 kg		Without water
Sampling System Dimensions	570 x 490 mm		Mounted on its own PVC backboards
Sampling System Capacity	3 litres		
Flow Limit Switch	Contacts closed if flow below set point		Option available on request
Water Flow Rate	2 l/min		
Supply Voltage AC Version DC Version	 90 V AC 10 V DC	 240 V AC 15 V DC	50 Hz or 60 Hz
Power Consumption	9 W		Typical 7 W during operation

NOTE 1: Measured against a 10 ppm toluene solution at standard temperature and pressure; accuracy can be further improved at points of interest, using bespoke calibration. **NOTE 2**: Climate control might be needed depending on process and ambient conditions

TYPICAL TARGET SUBSTANCES

Kerosene, Ethanol, Diesel, Toluene, Acetone, Xylene, Heptane, Benzene, Methanol, Mercaptan

CONSUMABLES

6 Months: Air Filters, Restrictor
As required: Air Pump, usually every 18-36 months

SERVICE

Service is necessary every 6 months to keep the instrument operating in optimal conditions. 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

PRINCIPLE OF OPERATION

The MS1900 utilises a contactless measurement technique based on Henry's Law, sensing headspace gases or volatiles in the sampling tank provided, and provides a measurement system with very low maintenance requirements.

Thanks to the clever design and technology the sensor never touches the water. This results in reduced drift, virtually no fouling, no sensor cleaning and very low maintenance.

The MS1900 is accurate down to 0.1 ppm concentrations and its wide dynamic range allows it to be used in a wide variety of environments.

The concentration of **volatile organic compounds** (VOCs) and water vapor in the headspace increases until equilibrium is reached with the concentration in the water.

A sample of gas is then taken from the headspace and the response analysed to provide a concentration in ppb of contaminants in the water.

ORDERING INFORMATION

Every MS1900 is shipped with the instrument and the sampling system (this is bolted on to its own backboard), electronic manual and calibration certificate. Standard configuration of the instrument is 90 - 240 V AC.

Base Analyser

0-000025	MS1900 Oil in Water Analyser, 90 - 240 VAC, 4-20 mA output and sampling system included

Common Accessories

2-000016	MS1200/MS1900 Validation Kit

Common Consumables

7-000794	Gasket Continuous Mode
7-000509	Fixed air flow restrictor
7-000504	In line filter 5µ
7-000327	Pump BLDC

For a detailed quote get in touch with Multisensor Systems Ltd or an approved distributor.

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

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CHANGELOG

MSS DOCUMENT CHANGE RECORD

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