Advanced sensors

Oil in Water
Analytical Experts

SA-500

SIDE-STREAM OIL IN WATER ANALYSER

Ultrasonics

Fluorescence

The SA-500 is a side-stream Oil in Water analyser suitable for non-hazardous areas; it uses Deep UV Fluorescence to provide continuous accurate measurements of oil concentrations in water. The analyser detects a wide range of oils/oil components such as fuel oils, condensates, lubricating oils, gear oils, BTEX, PAHs which are typically difficult with standard techniques as well as crude oils. Reliable real-time data enables operators to take accurate discharge measurements and to improve efficiency of separation processes, enabling cost reductions. The SA-500 is ideally suited for refineries, marine, industrial and waste-water oil in water monitoring.

Applications range from marine exhaust scrubbers, heat exchangers, steam condensate, cooling water and boiler feed amongst others.

BENEFITS

- Robust and reliable
- Easy to use
- Low cost of ownership (COO) with no routine maintenance required
- No degradation of signal and no recalibration required
- Side-stream format offers localized sample control
- Remote control and monitoring (suitable for un-manned locations and remote process monitoring)
- Instantaneous measurements
- Sample point facilitates laboratory correlation

FEATURES

- Patented ultrasonic cleaning
- Deep UV fluorescence
- Configurable measurement ranges (0-10ppm, 0-100ppm [...] up to 100,000ppm)
- Measurement repeatability ±1% of full-scale range
- Remote management and diagnostics
- Easy to install (no sample conditioning required)
- Multiple communications configurations - 4-20 mA, HART, Modbus, Extended Ethernet
- Secure access with (2) levels
- Auto-tuning functionality
- Viewing window for sample chamber
- Digital Input & Output

Measurement Performance	
Measurement principle	Deep UV Fluorescence
Cleaning	Ultrasonic (automatic)
Range	0-100,000 ppm*
Repeatability	±1% of full-scale range
Accuracy	±1% of full-scale range***
Response time	1 Second, continuous results
Operating Conditions	
Process temperature	Up to 100°C
Process pressure (MAWP)	Up to 15 bar_g
Process flow	Up to 25 l/m** (for higher flow rates contact AS)
Operational ambient temperature	-20°C to +55°C
Utilities	
Power supply	110 or 230 VAC (Pre-configured)
Power frequency	50 or 60 Hz
Power consumption	60 W normal, 300 W peak
Certification	
Ingress protection	NEMA 4X, IP66
Enclosure material	316L SS
CE Compliant	CE
Weight & Dimensions (for shipping)	
Weight (including stand)	75kg
Dimensions	L 92 cm x W 83 cm x H 148 cm
Communications	
4-20 mA (1)	Passive, Configurable for measurement readings/temperature
Digital Input (1) Digital Output (s)	Start/Stop cycle control Configurable as alarm contacts
Remote access	Windows Remote Desktop
Internal data storage	>10 years
Security	2 level password protection
Optional Communications	
Additonal 4-20mA	Passive, Configurable for measurement readings/temperature
HART	Yes
Modbus RTU	Implemented via HART to Modbus converter
Extended Ethernet	2 wire connection, capable of 1.3km distance
Additional Information	
Pipe Diameter	1/2" (Contact AS for other sizes)
Wetted parts	316L SS (Contact as for other materials)
Piping connections	NPT female threaded

* Dependent on sample matrix & instrument configuration. User may select any desired measurement from 0-10 ppm, 0-100 ppm [...] up to 100,000 ppm.

** Flow rate through the analyser measurement chamber. Flow control may be implemented external to the analyser to manage higher flow rates.

***Under ideal conditions, with a homogenised sample.

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