SA-500P

INLINE OIL IN WATER ANALYSER

Ultrasonics   Fluorescence

The SA-500P is an inline probe 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 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

- No user required maintenance and consistent accurate performance
- No sample conditioning system required. Inserted directly in process pipe
- No degradation of signal and no recalibration required
- During process shut down, the analyser can be turned to standby mode through remote digital input. All signals are accessible remotely through Modbus / Ethernet connectivity and 4-20mA
- With double block and bleed valve, probe can be inserted/ removed without process shut down

FEATURES

- Patented ultrasonic cleaning
- Deep UV fluorescence
- Configurable measurement ranges (0-10 ppm, 0-100 ppm [...] up to 0-100,000 ppm)
- Measurement repeatability ±1% of full scale
- Remote management and diagnostics
- Easy to install
- Hot extraction and insertion of probe
- Digital Input & Output
- For the option of hot insertion/extraction, an extraction tool and gear box is recommended for pressures in the range 3-5 bar. For pressures above 6 bar a gear box is essential for hot insertion/ extraction

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 200°C
Process pressure (MAWP)	Up to 100 bar$_g$
Process flow	Nominal 10m/s
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	IP66/except IP68 for wetted portion
Enclosure material	316L SS
Enclosure	NEMA 4X IP66
CE Compliant	CE
Weight & Dimensions (for shipping)	
Weight (including stand)	100kg
Dimensions	L 92 cm x W 83 cm x H 148 cm (except 980mm probes)
	L 92 cm x W 83 cm x H 176 cm (with 980mm probes)
Communications	
4-20 mA (1)	Passive, Configurable for measurement readings/temperature
Digital Input (1)	Start/Stop cycle control
Digital Output (s)	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	
Flange fitting	2" ANSI RF
Hot insertion/extraction	Optional using single or double block and bleed valves
Wetted parts	316L SS (Contact AS for other materials)
Conduit length	Up to 50m‡

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

**Under ideal conditions, with a homogenised sample.

‡ Please contact ASL to discuss conduit length over 30m.

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