

## EX-100 / 1000

### Side Stream / Slip Stream On-line Oil in Water Monitor - Analyser

The introduction of Advanced Sensors revolutionary oil in water analysers in 2005 began with the EX-100.

The EX-100 was the first on-going maintenance free analyser to provide continuous uninterrupted accurate measurements of oil concentrations in water. Finally, reliable real time data enabled operators to take accurate discharge measurements and thus take the next step to improve efficiency of separation processes and ultimately, cost reductions.

#### Features

- Zero on-going maintenance using patented ultrasonic cleaning mechanisms and software
- Laser Induced UV Fluorescence
- Unparalleled high concentration measurement capabilities allowing user configurable ranges from 0-10 PPB, to 0-20,000 PPM
- 1% accuracy and 99% measurement repeatability
- Complete remote capabilities
- No flow conditioning or flow control
- Plumb'n'Play – easy installation into new or existing installations
- Multiple communications configurations – 4-20mA, HART, Modbus, Ethernet, ADSL
- Optional Integrated Spectrometer, turns the EX-100 into EX-1000 - see Spectrometer in Technology Section of website

#### Benefits

- With no consumables and no regular operator intervention, the Advanced Sensors analyser offers very low Cost Of Ownership (COO)
- By using laser induced fluorescence (LIF), the analyser avoids standard fluorescent lamp issues, namely, warm up requirements and deterioration of lamps over time resulting in accuracy issues
- Advanced software capabilities allow complete remote control and monitoring. Ideal for unmanned locations and remote process



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<b>Measurement Performance</b>	
Measurement principle	UV Fluorescence
Range	0-20,000 PPM
* User may select any desired measurement from 0 to 10ppb, to 0-20,000ppm	
Accuracy	±1% of measurement range
Repeatability	> 99%
Response Time	< 1 Second, continuous results
<b>Operating Conditions</b>	
Process Temperature	0°C to 100°C (option to 180°C)
Process Pressure	0-35 barg (design pressure 180 barg)
Process Flow	0-25 l/min (optional 0-1000l/min)
Operational Ambient Temperature	-20°C to 60°C
Cleaning	Ultrasonic (automatic)
<b>Utilities</b>	
Power Supply	110 or 230 VAC
Power Frequency	50 or 60 Hz
Power Consumption	60W normal, 300W peak
Instrument Air	5-8bar (for pneumatic valve)
<b>Certification</b>	
Ingress Protection	IP66
Enclosure Material	Aluminium (316SS optional)
ATEX Exd II 2 G IIB T4, IECEX, CSA, Class 1 Div 1	Purged air not required
<b>Weight &amp; Dimensions</b>	
Weight	76.9kg+ inc. stand, valve and chamber
Footprint	600W x 640D mm
Clear Space	500mm front and rear
Height	1.12m typical (optional variants)
<b>Communications</b>	
4-20 mA	Passive
HART, Modbus (over HART), Wireless (Wi-Fi), 2-wire ADSL	Optional
Ethernet	Standard
Remote Access	VNC, Master Remote Manager
Internal Data Storage	>10 years
Security	Multiple level password protection
<b>Additional Information</b>	
Flange Fitting	1" ANSI standard, options available
Wetted Parts	316SS (option of Hastelloy, Inconel, CR25, CR22, Titanium, Monel)
Sample take off point	Standard – integral to analyser
Viewing Window	Standard
<b>Sample Conditioning</b>	
Homogenisation	Ultrasonic
Gas Removal, Solids Removal, Temp. Conditioning, Flow Control	Not Required
Discrepancy for Oil droplet size	Automatic Oil Droplet Size Compensation as standard
<b>Spectrometer Specification (1000 models only)</b>	
Emission Wavelength Range	400-1100nm
Resolution	0.5nm