

# EX-100/1000

## Side Stream Oil in Water Analyzer



Ultrasonics



Fluorescence



Spectroscopy

The EX-100 is a side stream Oil in Water analyzer that uses fluorescence to provide continuous accurate measurements of oil concentrations in water. Reliable real-time data enables operators to take accurate discharge measurements and to improve efficiency of separation processes enabling cost reductions.

In addition to the EX-100 features, the EX-1000 model offers spectral analysis.

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## Features

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- Patented ultrasonic cleaning
- Laser Induced Fluorescence (LIF)
- Side stream format
- Periodic homogenisation of sample
- Sample point
- Various measurement ranges configurable (0-100ppb, 0-10ppm, 0-100ppm [...] up to 0-20,000ppm)
- Accuracy:  $\pm 1\%$  and measurement repeatability 99%
- Remote management and diagnostics
- Easy to install (no sample conditioning)
- Multiple communications options - 4-20mA, HART, Modbus, Extended Ethernet or WiFi
- Optional integrated spectrometer

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## Benefits

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- Easy to use
- Low Cost Of Ownership (COO) with zero routine maintenance
- No degradation of signal or recalibration
- Side stream format offers improved sample control
- Droplet size compensation with homogenized samples
- Sample point facilitates laboratory correlation
- Remote control and monitoring (ideal for un-manned locations and remote process monitoring)



<b>Measurement Performance</b>	
Measurement principle	Laser Induced Fluorescence (LIF)
Range	0-20,000ppm*
* User may select any desired measurement from 0-100ppb, 0-10ppm, 0-100ppm [...] Up 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 200°C
Process pressure	0-35 barg (180 barg optional)
Process flow	0-25 l/min (0-1,000l/min optional)
Operational ambient temperature	-20°C to 55°C
Cleaning	Ultrasonic (automatic)
<b>Spectrometer Specification (1000 models only)</b>	
Emission wavelength range	400-1,100nm
Resolution	0.5nm
<b>Utilities</b>	
Power supply	110 or 230 VAC (pre configured)
Power frequency	50 or 60 Hz
Power consumption	60W normal, 300W peak
Instrument air	5-8 barg (for pneumatic valve; electric valve option available)
<b>Certification</b>	
Ingress protection	IP66
Enclosure material	Aluminium (SS 316L optional)
ATEX Exd II 2 G IIB T4, IECEx, USA and Canada Class 1 Div 1	Purged air not required
IMO MEPC 107 (49)	IMO Certified, ABS, US Coast Guard, BV
<b>Weight &amp; Dimensions</b>	
Weight (including stand, standard pneumatic Stainless Steel valve assembly, termination box and isolation switch)	Aluminium Enclosure: 93.55Kg Stainless Steel Enclosure: 141Kg
Dimensions	670W x 640D X 1112H mm (1120H mm for Stainless Steel enclosure)
Clear space	500mm front and rear
<b>Communications</b>	
4-20 Ma	Passive
Ethernet	Standard
HART, Modbus, Wireless (WiFi), Extended Ethernet	Optional
Remote access	Standard
Internal data storage	>10 years
Security	Multiple level password protection
<b>Additional Information</b>	
Flange fitting	1" ANSI RF standard (optional flange, sizes available)
Wetted parts	SS 316L (option of CR22, CR25, Monel, Inconel, Hastelloy, Titanium)
Sample take off point	Standard – integral to analyzer
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