



# ATRA171p

## Precision Chemical Tracer Analyzer

Model #ARTRA-171

- ▶ Real-time, sub part per billion tracer chemical analyzer
- ▶ Long-term, robust in-field operation
- ▶ Optimized for alcohol and FBA tracers
- ▶ Autonomous operation and automatic reporting
- ▶ Patented high performance CRDS system
- ▶ Intrinsic stability requires minimal maintenance and calibration
- ▶ Direct produced-fluid sampling and analysis- no pretreatment required



The ATRA171p produced fluid tracer analyzer provides real time sub part per billion detection of common tracer agents in oil-field produced fluid and other complex sampling environments. Laboratory-grade results in real-time provide valuable insights into reservoir dynamics, improving reservoir management and throughput. Field analysis eliminates storage, transport, and chain of custody concerns while the low limits of detection reduce the volume of expensive tracer chemicals that must be injected into the reservoir over the course of a study.

The ATRA171p analyzer provides much faster response GC-MS systems while

significantly outperforming LC/MS approaches to chemical analysis. Automated sample processing eliminate the need for time consuming and costly laboratory pre-processing.

The AROMA family of instruments all share a simple interface that can be accessed from anywhere and that provides long term autonomous intervention. The intrinsic stability of the CRDS analyzer core minimizes maintenance and calibration requirements greatly reducing instrument operation overhead. AROMA provides world class performance anywhere, anytime.



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# Performance Specifications

Analytical Performance	
Limit of Quantitation	< 1 ppb for most analytes
Partial list of analytes	iso-propanol, n-propanol, n-butanol, tert-butanol, sec-butanol, iso-butanol, n-pentanol, EGBE, and various fluorinated alcohols
Precision	5% or LOQ, whichever is greater
Accuracy	20% or LOQ, whichever is greater
Measurement	
Analysis Time	< 60 Minutes
Sampling Duration	< 1-45 Minutes
Calibration	Monthly
Data Reporting	Attached PC, WAN gateway compatible
Data Format options	json, csv, matlab
Global Positioning System	Built-In
Sample Volume	20 mL
Physical Specifications	
Gas Connections	Swagelok® 1/8"
Analyzer Approximate Dimensions	19" w x 24" h x 24" d
Installation	Hardened enclosure or 19" Rack
Analyzer Weight	< 30 kg (66 lbs)
Power Consumption	< 350 W Steady State
Power Source	105-120 VAC, 60 Hz
Warm-up Time	< 45 minutes
Temperature Range	-20°C – 50°C
Humidity Range	5%-95% RH, noncondensing
Power and Gas Connections	Front Panel
Consumables	
Ultrapure N2 consumption	< 5 standard L/h
Sorbent Collector Lifetime	> 5000 measurements
Analyte Focuser Lifetime	> 5000 measurements
Front-end Filter (for dust/smoke)	Condition dependent
DI Water	20 mL per measurement
Water Capacity	5L
Cal Cartridge	1000 measurements