

FUEL ANALYZER PRO

PRODUCT DATA SHEET

Model: AT-FLA-01

Real-time fuel property analysis
Measures wide range of parameters
7 Inch HMI touchscreen



Description

The ATYSEN **Fuel Analyzer Pro** is an innovative solution for fuel quality analysis. Tailored for industrial, marine, aviation, and data center applications, it integrates advanced sensors, flow control systems and a 7-inch Human-Machine Interface (HMI) display within a single unit to deliver real-time insights into critical fuel properties.

The system measures viscosity, density, temperature, dielectric constant, solid contamination, and water/moisture content, adhering to ISO 4406 standards. Offering robust hardware, superior user experience and flexible integration, it supports standalone and integrated setups, ensuring exceptional reliability and adaptability.

Key Features & Advantages

- **Continuously Measures:** Viscosity, density, temperature, dielectric constant, solid contamination, water moisture contamination
- **Digital display and alarm :** for low, medium, and high contamination levels
- **HMI Touch screen:** 7 Inch HMI touchscreen shows real time analysis data
- **Modes:** Mountable on Fuel polishing unit or manual sampling using built-in HMI
- **Monitoring System Connectivity:** Connects with Fuel Analyzer monitoring system
- **High Sensitivity:** Data updates in seconds, ensuring precision and timeliness in fuel quality monitoring
- **Real-time Polishing initiation:** Initiate polishing based on fuel parameters real-time.
- **Rugged Industrial Construction:** Dust & water protection
- **Reusable and Low Maintenance:** Designed for repeated use without performance degradation
- **Data Centers:** Maintains HSD tank quality, optimizes Fuel Polishing Unit operation, and ensures backup power system (Diesel Generator) reliability

Typical Applications

- Data Centers HSD facilities
- Diesel Generator Sets (DG Sets)
- Marine and Aviation Industry
- Oil and Gas facilities
- Fuel storage terminal / Tank Farms
- Defence and Airports
- Energy and Utilities
- Fuel Distribution

Add-on Options

- Drip trays, custom enclosure
- Integration with Fuel Leak Detection systems

Technical Specifications

Parameter	Specification
Viscosity Measure	0.0 to 50.0 cP ; Assesses dynamic viscosity for flow and engine performance
Density Measure	0.000 to 1.500 gm/cc ; Evaluates fuel composition and quality
Temperature Measure	-40°C to 150°C ; Ensures optimal analysis conditions
Dielectric Constant Measure	1.00 to 6.00 ; Analyzes dielectric properties for contaminant
Solid Contamination Measure	ISO 4406 codes - 4, 6, 14, 21 microns ; Quantifies particulate matter
Water/Moisture Contamination	%RH or ppm ; Detects water in oil, microbial growth and rust
Supported Fluids	Engine oil, hydraulic oil, compressor oil, transformer oil, gear oil, transmission oil, diesel fuel, biodiesel fuels, kerosene, heavy fuel oil, and other fuels within specified ranges
Communication Interface	PC/PLC integration ; high-quality communication cable and a CAN J1939 compliant 4-pin connector for reliable data transfer to the HMI
Fuel Property Sensing	Tuning fork technology to simultaneously measure multiple parameters
HMI	Capacitive touch ; displays ISO 4406 metrics, RH; data logging and export option
Operating Environment	Industrial / commercial

System Capabilities

System Integration

- The **Fuel Property Sensor** assesses viscosity, density, dielectric constant, and temperature.
- The **Particle Detection Unit** monitors solid contamination and water content



Operating Modes

- **Online:** Mountable on pipelines with a maximum line pressure of 20 bar, connected to the nearest PLC panel, which relays data to the HMI for display.
- **Offline:** Requires manual sampling from a pipeline via a sampling point, featuring an inbuilt HMI for direct display

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