

In-line Conductivity Analysis For Jet Fuels

ASTM D2624



In-line Conductivity Measurement

ASTM D2624

- High-Accuracy AC measurement technology
- Allows precise control & measurement of SDA Additive Injection
- Stainless Steel construction
- Easily fitted and retracted from the pipeline via a retractable mount
- Can be fitted to pipes of various diameters
- ATEX, FM, FMc Certified for Zone 1, Class 1 Division 1 Hazardous Areas
- 16 Bar pressure or 100 Bar with the High Pressure Unit.

An inline system referenced in ASTM D2624 that provides real time, high accuracy measurement of conductivity in chemical pipelines. In-line conductivity measurement, rather than hand sampling, provides significant benefit to operators by offering the ability to continuously measure conductivity thereby assuring continuous compliance with conductivity level requirements. Operators are instantly alerted to out-of-spec levels of conductivity that may lead to unsafe conditions or undeliverable fuels.

The system can be connected to the refinery/terminal management system to provide an automatic and continuous record of product conductivity levels thus eliminating the requirement for manual sampling and record keeping.

The sensor allows precise control and measurement of SDA Additive Injection. When installed with an automatic dosing system the in-line sensor allows automated additive addition to maintain the conductivity within specified limits.

The conductivity sensor is comprised of two stainless steel coaxial electrode sensors and is suitable for long-term immersion in fuels. Sensor electronics are contained in an ATEX or FM-, CSA-, CENELEC- and UL-certified explosion proof housing.

The sensor is easily retracted from the fuel line through a full-port ball valve which offers easy maintenance. The retractable fitting allows an adjustable insertion depth to optimise positioning of the sensor for the line.

The Inline system is designed for operation on a variety of pipe diameters. The low-power sensor operates on industry standard 2-Wire Instrument Loop providing a 4-20 mA output scaled from 0 to 2000 pS/m (multiple ranges available). A second 4-20 mA output of temperature is standard. The system can also be operated in a 4-wire configuration for users requiring serial data output.



In-line Conductivity User Benefits



The in-line Analyser provides a continuous 24/7 record of product conductivity levels inside the distribution lines which offers significant user benefits:

- Eliminates traditional labour-intensive manual fuel sampling and record keeping.
- Measures conductivity at the actual temperature conditions inside the tank or pipeline removing inaccuracies due to thermal changes when manually spot testing.
- Warning alerts can be configured if unacceptable conductivity parameters are detected.
- When connected to automated refinery/terminal management systems, in-line conductivity measurement allows automated fuel additive control and eliminates manual injection and batch sampling of additives.
- True 2-Wire Intrinsically Safe Sensor connections allows immediate interface to any Site Digital Control System.
- 100 Bar high pressure model available for operation in high pressure pipelines.
- ANSI and DIN Flange Mount configurations and small diameter sensor allow installation in existing pipe line fittings, without the need for costly pipeline changes or engineering. Retractable mount allows immediate pipeline installation and removal without the need for product drain down.

Who should use the In-line system?

- Refinery Run Down Lines
- Marine & Truck loading/offloading Terminals
- Pipeline Distribution Terminals
- Fixed Base Operators (Airports)

Technical Specification

Sensor Parameters:	Conductivity
Range:	0-1000 pS/m or 0-2000 pS/m*
Temperature:	-20 to 60°C (-4 to 140°F)
Accuracy:	+/-2 pS/m or +/-2% of reading (+/-0.5°C)
Pressure:	16 bar max pressure (or 100 bar for high pressure model)
Resolution:	0.1 pS/m
Sensor Type:	316 S.S. Coaxial Electrode
Calibration:	Internal Source Zero and Scale

*Additional custom ranges are available on request.

A pipeline fixing adapter may be required, please contact Seta for further information

Order Information

99500-0	In-line Conductivity Analyser	16 bar max pressure
99505-0	In-line Conductivity Analyser - High Pressure	100 bar max pressure