Electrolab's Midstream Tank Solution

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Environmental concerns and stricter regulations mean producers must account for every fluid drop

In today's midstream market, accurate measurement is critical. Tightening environmental regulations mean operators must account for every drop of fluid. Safety is paramount and special attention must be given for the safety of technicians and truck drivers, especially in high H_2S environments. Monitoring in large collection tanks, blend tanks, and condensation tanks has its own needs and challenges.

Accuracy and Reliability

Electrolab offers the best, most reliable, lowest maintenance, most cost effective solution for the midstream environment. Fluid in the tank is not homogeneous and the mix is not always the same. Oil, liquefied gases, condensate and more are collected before the oil. The ideal measurement solution for these tanks must meet the following criteria:

- **Resistant to scale buildup and corrosion**
- **Accurate, reliable, low maintenance**
- **Accessible, easy to read data**
- **Cost effective**

RU Flex 2100 DLS

The RU Flex 2100 DLS is the solution. Built on the same measurement technology as the widely successful Model 2100 DLS, the RU Flex 2100 offers a flexible and rugged measurement solution that is easy to ship and install with measurement accuracy up to 3/16" with 1/8" resolution. With its rugged, chemical and abrasion resistant UHMW hose, the RU Flex sensor can be rolled into a 36" diameter coil, carried over the shoulder and installed by one man standing flat footed on a catwalk. The sensor ships standard carrier in a box.

The perfect solution for:
- **Holding Tanks**
- **Blend Tanks**
- **Condensate Tanks**

Unlike other sensing technologies, the RU Flex 2100 DLS is designed to accommodate the changing makeup of the fluid **without** recalibration. Our 3/16" "in-fluid" measurement accuracy ensures tight process control. These features coupled with the ease of installation of a flexible sensor makes this a winning solution for your application.

Specifications - RU Flex 2100 DLS

Material and Length
- UHMW-PE (Ultra High Molecular Weight Polyethylene) Hose
- Available in measurement lengths from 2 feet to 48 feet (capable of measuring in tanks up to 51.5 feet tall)

Float
- NYTROPHYL stainless steel
- Two piece floats for field installation and replacement
- One float used for product level
- One float for water interface level
- Designed to fit through a three-inch FNPT tank port

Pressure: 40 psi: standard
Wiring: 18 AWG recommended for digital circuits

Level Measurement Increments
- 1/8-in. resolution; 3/16-in. accuracy
- 1/4-in. resolution; +/- 1/8-in. accuracy
- 1/2-in. resolution; +/- 1/4-in. accuracy
- +/- 0.1% repeatability

Coiled Diameter: Approximately 36-inch diameter

Anchor Weight
- 3 in. diameter, required weight can vary based on sensor length
- High turbulence weight (optional)

Communication
Open communication protocols allow Electrolab's DLS products to interface with most manufacturers' equipment. We offer:
- RS485 - Two- or four- wire communications, Baud rate and parity programmable
- 4-20mA signal available when connected to an Electrolab 3010 digital-to-analog converter board
- Wireless compatibility with preferred partners

Certification / Classification
- ANSI/UL-913, 7th Edition
- CAN/CSA C22, No. 157
- Class I, Div.1, Group D hazardous locations (when connected to an approved intrinsically safe barrier device)

Operating Temperature Range: -40°C to 80°C
Power Requirements: 5.6 VDC TO 12.9 VDC
Power Consumption: 15 mA nominal 20 mA maximum

Protocol
- Modbus RTU 16-bit unsigned integer. Modbus RTU 32-bit floating point, Modbus RTU 2 x 16-bit
- Serial Data via ASCII

Temperature Measurement
- 12 inches from bottom
- +/- 1.5° C accuracy
- Up to 8 distinct temperature measurements (one standard)

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