The Flo ● Point[™] instrument body is cast 316 stainless steel and rated to ANSI 150, 300 or 600. The housing is rated Class 1, Division 1, Groups C & D. Two 1/2"-NPT holes provide wiring access to the electronics for power and data communications or simply communicate with the Flo ● Point[™] via an optional C1 D1 junction box with on/off switch. ANSI 150 applications - Complete tool ANSI 150 connections working pressure (1895kPa / 275psig) ANSI 300 applications - Complete tool ANSI 300 connections working pressure (4960kPa / 720psig) ANSI 600 applications - Complete tool ANSI 600 connections working pressure (10204kPa / 1480psig)

Flo • Point[™] Water Cut Sensor Specifications

Performance

Measurement range: Measurement method: Measurement rate: Measured variables:

Accuracy: Resolution: Repeatability: Salinity range: Compensation:

0-100% water cut 100% of flow volume through the sensor factory set to approximately one measurement/second water cut, fluid temperature and electronics temperature, accumulated oil and water volumes when coupled with a flow meter +/- 1% of full scale over water cut range 0.5% 1.0% 0 - 100,000 (NaCL) mg/L (0-13 ounce/gallon [U.S]) automatic internal salinity, temperature, and density compensation.

Operating temperature range

Electronics: Fluid temperature range: Call ESI for higher temperature applications.

-40°C to +80°C (-40°F to 176°F) 0°C to +80°C (+32°F to 176°F)

Electrical

Power requirements: Outputs:

10 - 15VDC @ 750mA five analog and one digital 0-5V, 0-10V, 0-20mA, 0-25mA, 4-20mA, (RS232)

Mechanical

Dimensions: Construction: Piping: Weight:

63 x 17 x 17 cm (24-1/2 x 6-5/8 x 6-5/8 in) cast 316 stainless steel 2"diameter, in-line connection approx 54kg (120lbs) Recommended ancillary equipment: inline static mixer for low flow rates

CSA No. 210467, CRN No. 0F4060.1.2.3

Designed to meet CSA for hazardous locations Class 1, Div 1, Groups C & D.

Flo•**Point** [™]

A Revolutionary Water Cut Sensor for the Oil Industry





E.S.I. Environmental Sensors Inc.

Toll Free (in North America): 1.800.799.6324 Email: flopoint@esica.com · www.esica.com





There's a lot happening below the surface[™]

Full Volume Real-time Monitoring

Flo • Point[™] enables increased efficiency with rugged, zero-maintenance technology



What Is It?

Flo ● Point[™] is a patented, water cut sensor, based on leading edge technology, that electronically measures the volumetric water content of a 100% of the fluid stream.

Flo ● Point[™] utilizes Time Domain Transmissiometry (TDT) technology to read a full range of water cuts (0-100%) while automatically compensating for salinity variations.

Flo ● Point[™] can be used to monitor water content accurately (+/- 1%) in a full range of oil densities from very heavy to light.

The Primary Benefits

Flo ● Point[™] continuously measures the percentage of water content in oil on a REAL TIME basis over a wide range of oil production conditions. Net revenue can be increased by:

- Tuning a well or reservoir for maximum oil production
- Reducing the volume and cost of treating water
- Increasing the mean time between well work-overs
- Eliminating manual water cut sampling and decreasing labour cost

Flo ● Point[™], when combined with a data logger, SCADA or portable computer, offers a comprehensive display of production information. By adding a wireless modem and internet access, data can be accessed quickly and efficiently to increase well profitability.



Easy to Install...

Flo ● Point[™] is installed in-line with the fluid flow and can be mounted in any orientation or configuration - vertical, horizontal or slanted. Other installation features include:

- · Integration of flow meter data to accurately measure oil & water volumes
- · Water cut readings adjusted for salinity, temperature and oil density
- Easy to use calibration and logging software
- In-line real-time readings of the total fluid flow
- Multiple data outputs for a variety of installation configurations SCADA compatibility
- · Allowance for in-situ calibration confirmation, sampling verification and "Prover" certification
- Units have no moving parts

Industry-Wide Applications Include...

- Monitor a single well, the well test header or a group manifold
- · Characterize the well and the reservoir to optimize production and size equipment
- · Real time water cut information that is unaffected by sand salinity and temperature
- Detect upset conditions in storage and treatment facilities

A Source You Can Trust

Environmental Sensors Inc. is a world leader in precision water monitoring products with three generations of water monitoring instruments sold in 45 countries.