

Inductive Conductivity Sensors

Features & Benefits -

Wide Measuring Range -

TreLytics' Inductive Conductivity Sensors measure binary chemical mixes such as:

HF	NH ₃	NaOH	HNO ₃	H ₂ SO ₄	H ₃ PO ₄	HCl
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In addition users define composition or conductance. A built-in Pt 1000 RTD compensates the measured conductivity for changes in process temperature.

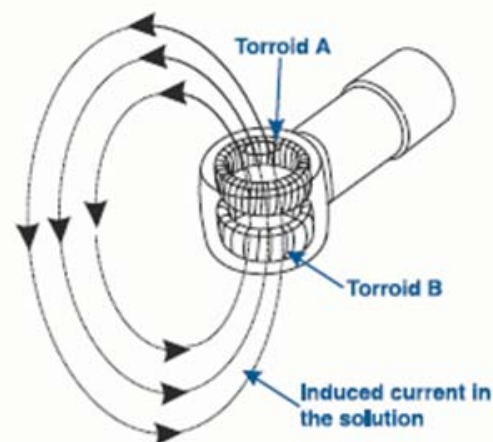
Principal of Operation -

Inductive conductivity sensors induce a low current in a closed loop of solution, then measure the magnitude of this current to determine the solution's conductivity. The conductivity analyzer drives Torroid A, inducing an alternating current in the solution. This current signal flows in a closed loop through the sensor bore and surrounding solution. Torroid B senses the magnitude of the induced current which is proportional to the conductance of the solution. The analyzer processes this signal and displays the corresponding reading.

Versatile Mounting -

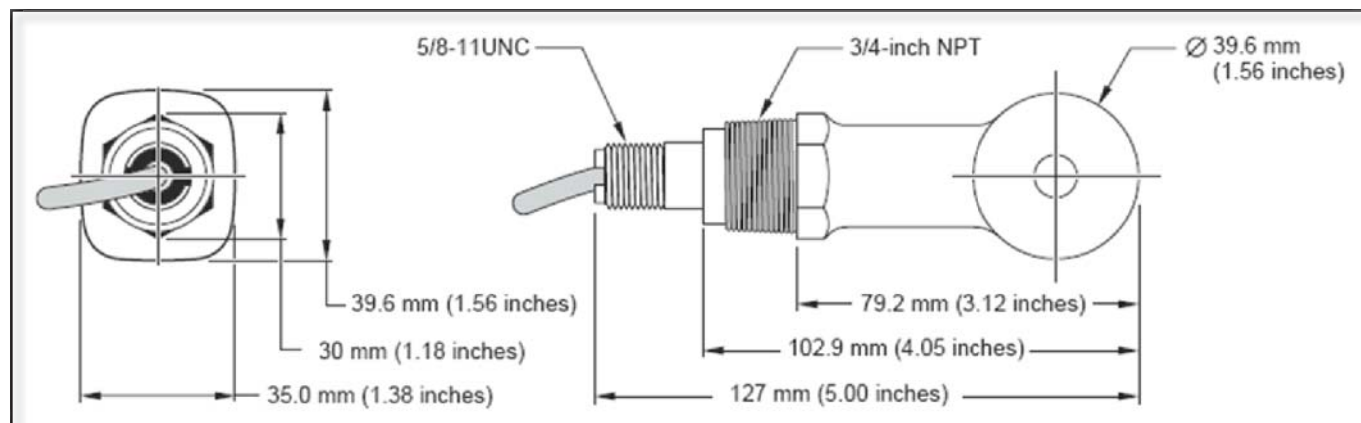
Sensors can be installed using a choice of 2 mounting styles—immersion, inline.

Inductance Example -



The innovative technology of TreLytics Inductive conductivity sensors eliminates polarization and electrode coating problems in harsh environments.

Dimensions -



Specifications -

Measuring Method -

Electromagnetic Induction

Measuring Range -

From 0-200 microSiemens/cm up to
0-2,000,000 microSiemens/cm

Operating Temperature Range -

-10 to 150°C (14 to 302°F); limited only by sensor body
material and mounting hardware.

Temperature Compensator -

Pt 1000 RTD

Temperature/Pressure Limits -

PFA Teflon®

13.8 bar at 200°C (200 psi at 392°F)

Flow Rate -

3 m (10 ft.) per second, maximum

Sensor Cable -

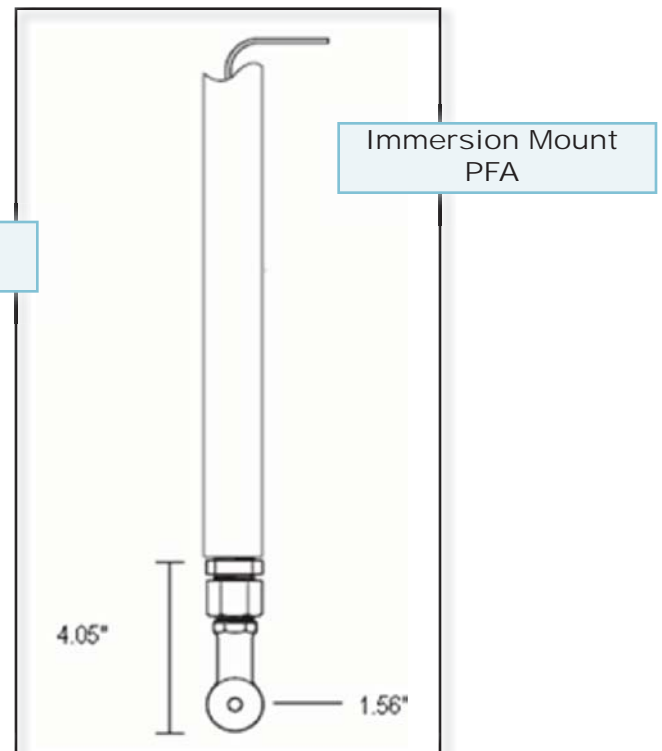
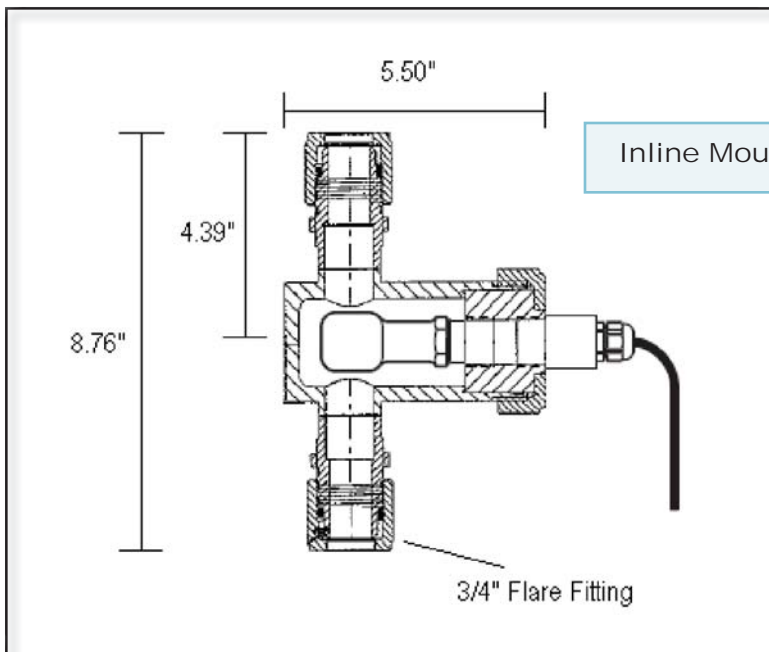
PFA Teflon® Sensor:

5 conductor (plus two isolated shields) cable with Teflon
coated jacket; rated to 200°C (392°F); 6 m (20 ft.) long

Wetted Materials -

PFA Teflon®

Mounting Specifications -



Engineering Specifications Engineering Specifications -

1. Calibration of chemical mix defined by user.
2. The electrodeless conductivity sensor measures from 0-200 to 0-2,000,000 microSiemens/cm, and has a built-in Pt 1000 RTD element to compensate measured conductivity for changes in process temperature.
3. The sensor is constructed of only one wetted body material which is PFA Teflon®.
4. The sensor cable is water resistant and rated to 200°C (392°F) for PFA Teflon® sensors.
5. Inline Mount comes with 3/4" flare fittings.