### Inductive conductivity probe

### **FEATURES**

- Conductivity measure throughout inductive sensor.
- The inductive sensor design eliminates polarization errors and electrode coating problems that commonly affect conventional conductivity contacting-electrode models.
- PT100 (or NTC or any) temperature compensation.
- High pressure (8 bar) and temperature (up to 85°C) specifications.
- Wide conductivity range (up to 300 mS).



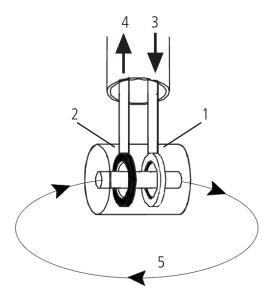


Inductive conductivity measurement technique: operating principle

Inductive conductivity sensor induces a low current in a closed loop of solution, then measures the magnitude of this current to determine the solution's conductivity.

The conductivity probe drives Toroid A, inducing an alternating current in the solution. This current signal flows in a closed loop through the sensor bore and surrounding solution.

Toroid B senses the magnitude of the induced current which is proportional to the conductance of the solution.



- 1 Toroid A
- 2 Toroid B
- 3 Alternate current generator
- 4 Receiver
- 5 Induced current in the solution





## Inductive conductivity probe

#### **ECDIND PT**

Range: 0,1-3 mS; 0,3-10mS; 0,3-300 mS

Analysys system: inductive

Temperature: 85° C (185°F); 100°C (212°F) in spot measurements

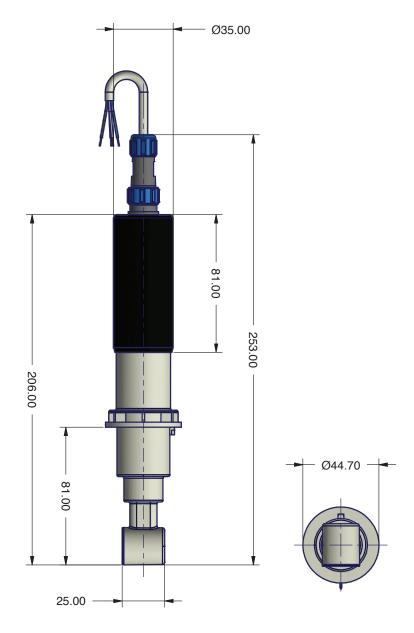
Pressure max: 8 bar (116 PSI) Cable/connector: G1 and NPT ¾"

Cable length: 4 mt
Material: PEEK
Temperature sensor: PT100

Probe holder: PEL-IND; PEL INDC; PEL IND SS; NPED-IND; PEC IND

### **DIMENSIONS**

expressed in mm







### **ECDIND PT - ECDSIND PT**

### Data Sheet

## Inductive conductivity probe

### **ECDSIND PT**

Range: 0,3-30 mS Analysys system: inductive

Temperature: 85° C (185°F); 100°C (212°F) in spot measurements

Pressure max: 8 bar (116 PSI)
Cable/connector: G1 and NPT ¾"

Cable length: 4 mt
Material: PEEK
Temperature sensor: PT100

Probe holder: NPED-INDS; NPED4-INDS

 ECDINDPT / ECDSINDPT
 300-3000: Zero=250mV (± 100); FS=2900 mV (± 300)
 0.9mV/μS;89mV/mS;8.8mV/mS a 25° C

 ECDINDPT / ECDSINDPT
 300-30000 Zero=250mV (± 100); FS=2900 mV (± 300)
 0.9mV/μS;89mV/mS;8.8mV/mS a 25° C

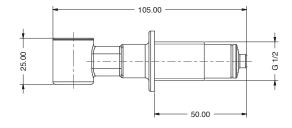
 ECDINDPT / ECDSINDPT
 300-300000 Zero=250mV (± 100); FS=2900 mV (± 300)
 0.9mV/μS;89mV/mS;8.8mV/mS a 25° C

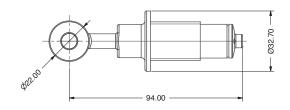
### **DIMENSIONS**

expressed in mm

0











# Inductive conductivity probe

#### PROPER INSTALLATION



The process flow must be directed through the hole.

The inductive conductivity measurement technique requires a process fluid surrounding the sensor.

