

# ORAKEL

SYSTEM

# CONDUCTIVITY/ TDS SENSOR

The ORAKEL range of conductivity sensors measure conductivity from 0 to 2,000,000  $\mu\text{S}/\text{cm}^2$  (range selectable). You can choose between a standard Graphite Sensor and a more sophisticated Toroidal Sensor or stainless steel 'special' sensors for high temperature, high pressure applications.



## KEY FEATURES

- Resists coating, corrosion and fouling
- Durable Noryl/stainless steel construction
- Easy installation
- Custom tee for in-line mounting
- TDS and salinity outputs

## APPLICATIONS

### Graphite Sensor

Our light industrial conductivity sensor utilises graphite technology. The durable epoxy body construction provides a rugged and dependable sensor for potable water and clean water.

Can be mounted in-line, in a pipe 'T' fitting or submerge into a tank.

For many applications, the epoxy body conductivity sensors are the lowest cost, most reliable conductivity sensor to use, especially for process applications. Rugged epoxy bodies make the sensors virtually unbreakable.

These are an excellent choice to use as standard online conductivity electrodes in the water and related industries.

### Toroidal Sensor

The toroidal inductive conductivity sensors feature a wide measurement range and dependable toroidal technology over the range 0-2,000,000  $\mu\text{S}/\text{cm}^2$ .

Resistant to corrosion, coatings and fouling common to contacting conductivity sensors, this probe is designed for a trouble-free, long service life.

Noryl is the standard material of construction with a wide solvent tolerance and temperature stability to 105°C. All models can be submersed by utilising the 3/4" MNPT threads on the sensor or installed in 2" NPT tees for in-line deployment.

A temperature sensor is built into the conductivity sensor for automatic temperature compensation.



[www.detelectronic.org/orakel](http://www.detelectronic.org/orakel)

## GRAPHITE SENSOR



- 0 - 1000  $\mu\text{S}/\text{cm}^2$
- K - 0.1, 1, 10
- Flow cell or pipe mounted
- Potable, clean water

## SPECIALS



- High temp
- High pressure
- Clean in place
- Stainless steel

## TOROIDAL SENSOR



- 500 - 2,000,000  $\mu\text{S}/\text{cm}^2$
- In-pipe or dip mounted
- Dirty water
- Noryl

All ORAKEL conductivity sensors can be used to measure salinity and TDS (Total Dissolved Solids).

## TDS AND SALINITY

The ORAKEL Dissolved Solids (TDS) and Salinity Monitor has been designed to make the calculation of TDS and salinity easy for the user. The on-board microprocessor performs all the

necessary calculations to present the user with accurate TDS in mg/l and salinity in either mg/l or PSU (Practical Salinity Unit).

## TECHNICAL SPECIFICATION

### Standard Graphite Sensor

Type: graphite.

Measuring range:

0-1000  $\mu\text{S}/\text{cm}^2$

(other ranges available on request).

Cell constants: k=0.1, 1, 10.

Measuring surface: graphite.

Body material: epoxy.

Max temperature: 70°C.

Max pressure: 7.5 bar.

Temp comp: included.

Cable: 22 AWG 4-wire,

for temperature compensated type.

3' standard unless otherwise specified.

### Advanced Toroidal Sensor

Type: toroidal.

Measuring range:

500-2,000,000  $\mu\text{S}/\text{cm}^2$  (0.5-2000 mS/cm<sup>2</sup>).

Body material: Noryl.

Max temperature: 105°C.

Max pressure: 10 bar.

Temp comp: included.

Cable length:

6 metres, 6 conductor plus shields.

Process connection:

3/4" MNPT for submersion,

2" standard tee with adapter.

To learn more about the Detectronic ORAKEL System and how it can help your business, get in touch:

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