

# ST 3254

## Toroidal E. Conductivity

### Loop powered transmitter



This E. Conductivity monitoring system consists of a loop powered transmitter and an electrodeless conductivity sensor in a single package.

Temperature compensation is accomplished with a RTD Pt100 built-in to sensor.

Application includes water treatment, cooling tower and water monitoring.

### Principle of operation

When the electrodeless Conductivity sensor is immersed in the solution to be measured a conductive loop is created through the two toroidally wound coils.

An alternating Current is applied to one of the coils which induces a Current in the conductive loop.

The second coil is used to measure the Conductivity which is proportional to the induced Current in the solution.

The advantages of the electrodeless method are more apparent in measurement applications in which electrodes contamination and polarization of a conventional Conductivity system can lead to erroneous readings.

This probe contains:

- two measuring toroidal coils
- RTD Pt100 Temperature sensor
- 4/20 Current loop amplifier

### Specifications

**Range:** 0/10 mS (0/100 – 0/1000 mS on request)

**Power supply:** 11/24 VDC

**Current loop:** 4/20 mA isolated

**Load:** 600 Ohm max at 24 VDC

**Installation:** in-line or submersible

**Cell:** toroidal

**Temperature sensor:** Pt100

**Length:** 207 mm

**Thread:** 1 ½" MNPT

**Body:** PVC-C

**Max. Temperature:** 40 °C part in contact with liquid

**Temperature coeff.:** TC of the liquid + 0.3 %/°C

**Max. Pressure:** 3 Bar at 25 °C

**Cable length:** 3 mt.



INGENIEROS ASOCIADOS DE CONTROL, S. L.

Telf. 913831390

comercial@iac-sl.es