# ST 3254.x
# Toroidal E. Conductivity loop powered transmitters

www.dpfsensors.es

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 built-in sensor.

Application includes water treatment, cooling tower and water monitoring.

Three models are available for specific measuring range.

## 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.

Each probe contains:

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

## Specifications

**Measuring method:** toroidal

**ST 3254.1:**: 0/10 mS range

**ST 3254.2:**: 0/100 mS range

**ST 3254.3:**: 0/1000 mS range

**Power supply:** 11/30 VDC

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

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

**Temperature sensor:** built-in

**Max. Temperature:** 50 °C part in contact with liquid

**Temperature Coefficient:** 2.2 %/°C

**Temperature Reference:** 25 °C

**Max. Pressure:** 10 Bar at 25 °C

**Length:** 207 mm

**Thread:** 1 ½" MNPT

**Body:** PVC-C

**Cable length:** 3 mt

**Installation:** in-line or submersible

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