

TOROIDAL CONDUCTIVITY LOOP POWERED TRANSMITTER

10/08



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This 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 includes 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 electrode contamination and polarization of a conventional Conductivity system can lead to erroneous readings.

Specifications:

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

Power Supply: 24 VDC

Load: 600 ohm max at 24 VDC

Installation: In-line or Submersible

Cell: Toroidal

Temperature Sensor: Pt100

Length: 207mm (Over All) 86mm (Insertion)

Thread: 1 1/2" MNPT

Body: CPVC or Kynar

Max. Temperature: 104°F (40 °C)

Max. Pressure: 3 Bar at 25 °C

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

Cable length: Standard length, 3 Meters other cable lengths available on special order

[Toroidal.pmd]