



EC250
Electrical Conductivity Sensor



EC250 Electrical Conductivity Sensors

The Electrical Conductivity Sensors provide highly accurate conductivity measurements in a wide range of hydrological applications.

Exceptional reliability and chemical resistance are guaranteed by the state of the art toroidal measuring system. Advanced microprocessor technology provides highly accurate temperature compensated measurements..

Accuracy

Field conductivity measurements in ionised solutions have traditionally been fraught with inaccuracy due to temperature and electrode effects. The EC Sensor substantially eliminates these conventional sources of error. A larger sized toroidal sensor element uses the free ions in solution as a conductive path between two shielded ferrite transformer cores. This system eliminates errors caused by electrode degradation. An advanced compensation algorithm in the on-board microprocessor substantially reduces system non-linearity and temperature drift errors.

Range	Up to 70,000uS
Linearity	+/- 0.2% FS
Accuracy	Normalised +/- 1% FS (@25°C) Non-Normalised +/- 0.7% FS (@25°C)
Supply Voltage	10 - 14V
Dimensions	L= 442mm O.D.= 47mm

Key Benefit

Toroidal conductivity sensing technology eliminates electrode corrosion effects, guaranteeing long life and reduced field service.

Integrated Installation and Technical Support

The correct choice of sensor is essential to the long-term success of an installation. Professional commissioning and dedicated technical support is equally important. We offer the reassurance of integrated expert field advice via Greenspan Technical Services.

Greenspan is intimately familiar with our complete range of sensors and analysers, with numerous successful installations throughout the world.

Greenspan Analytical and Greenspan TS can offer customers real value by packaging the supply of instruments with installation, commissioning, technical support and even data acquisition into a complete 'turnkey' solution.

Product Features

- Toroidal sensing technology eliminates electrode corrosion effects guaranteeing long life and reduced field service.
- On-board temperature measurement and microprocessor controlled temperature compensation and linearisation ensure highly accurate readings in demanding conditions.
- Sensor can be field calibrated with Greenspan Analytical's calibration software.
- Separate conductivity and temperature outputs deliver raw conductivity or on-board normalisation of conductivity to 25°C.

How to Order

The following information will be required:

- Model EC250
- Sensor EC full scale range (µS/cm)
- Cable length (m)
- Specify any other options.

EC250 Specifications

Standard EC ranges available	0-1000µS/cm, 0-2000µS/cm, 0-5000µS/cm, 0-10000µS/cm, 0-20000µS/cm, 0-60000µS/cm & 0-70000µS/cm Other ranges are available to order. A calibration charge applies to non-standard ranges.
Linearity	Temperature 0.2%, EC 0.2%
Temperature accuracy	0.2°C
EC accuracy, normalised to 25°C	1% FS @ 25°C
EC accuracy, non-normalised	0.7% FS @ 25°C
Outputs	EC: 4-20mA, 0-2.5V, or 0-1V Temperature: 4-20mA, 0-2.5V, or 0-1V
Supply voltage	10 - 14V Reverse polarity protected Surge protected to 2kV
Warm up / reading time	1 sec
Dimensions	Length 442mm OD 47mm (Stainless Steel or Delrin)
Weight	1.76kg (Stainless Steel) 950g (Delrin)
Wetted materials	316 Stainless Steel, Delrin, Acrylic
Cable	12 core Polyurethane sheathed
Software supplied	ECFA

Applications

- STP aeration tanks
- Borehole observations
- Tidal and estuarine studies
- Effluent monitoring
- River and stream measurement





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