

GREENSPAN



EC-2500A

Electrical Conductivity Sensor

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DESCRIPTION

The EC-2500A Electrical Conductivity Sensor provides 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.

Field conductivity measurements in ionised solutions have traditionally been fraught with inaccuracy due to temperature and electrode effects. The EC-2500A 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.

The sensor is ideal for use in a

wide range of monitoring and environmental projects. A durable corrosion resistant body and double O ring sealing ensures suitability for harsh environment applications. The sensor comes fitted with a moulded polyurethane cable.

The EC-2500A is easy to install and provides users with a rugged and reliable solution to long term monitoring. For more information please contact your nearest sales office.

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 calibration software.
- Separate conductivity and temperature outputs

- Raw conductivity or on-board normalisation of conductivity to 25°C

BENEFITS

- Low cost of ownership and minimal maintenance
- Ease of use and long term reliability

APPLICATIONS

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

CUSTOMER SUPPORT

Greenspan also offer a range of customer support functions:

- Field installation
- Data management
- Project integration
- Technical and sales support
- Factory calibration and re-certification
- Product servicing and repair

DIMENSIONS



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EC-2500A SPECIFICATIONS

Measurement technique	Toroidal measuring system
Standard EC Ranges available	1000, 1500, 2000, 2500, 5000, 10000, 20000, 50000, 60000, 70000, 75000, and 90000 $\mu\text{S}/\text{cm}$ Other ranges are available to order. A calibration charge applies to non-standard ranges.
Outputs	EC: 4–20 mA, 0–2.5 V, or 0–1 V Temperature: 4–20 mA, 0–2.5 V, or 0–1 V
Linearity	Temperature 0.2%, ECO.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
Cable type	Polyurethane sheathed cable, OD8 mm, Aramid reinforced, moulded entry, bare wire connection
Standard cable lengths	10, 20, 30, 50, 100, 150 m(32, 65, 100, 165, 325, 490 ft)
Non-standard cable lengths	Yes (Extra cable moulding time may be required)
Power supply	8–27 V
Reverse polarity protected	Yes
Surge protected	to 2 kV
Warm-up/reading time	1 sec
Current consumption	40–90 mA (dependent on output)
Operating temperature	0–50°C
Storage temperature	–5°C–60°C
Depth rating	100 m
Weight	1.76 kg (Stainless Steel) 950 g (Acetal)
Dimensions	Length 561.5 mm (22.11" x 2.57") OD63.5 mm(Stainless Steel or Acetal)
Wetted materials	316 Stainless Steel, Acetal, Acrylic
Software supplied	ECFA

OPTIONAL EXTRAS AND ACCESSORIES

- Communications cable for use with ECFA software (Part No. 5CC–200)

HOW TO ORDER

The following information will be required:

- Model EC–2500A
- EC Range
- Normalised or non-normalised
- EC shroud fitted (Y/N)
- Body type
- Cable length (m)
- Output (current/voltage)
- Any other accessories.



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