

Technical Specification

Turbidity Sensors - TS100, TS300 & TS1200

Description

The Greenspan Analytical Turbidity Sensors provide accurate and precise turbidity reading over a range of adverse environmental conditions.

An innovative optical system provides accurate measurements even at low turbidity, while the advanced optical surface treatment resists fouling. The system transmits an infrared beam of 860nm and detects the backscatter intensity to determine turbidity.

Accuracy

Accurate and stable turbidity readings are ensured through the use of Greenspan Analytical's advanced filtering techniques to eliminate interfering light sources. Temperature compensation is achieved with a sophisticated digital sampling technique to respond instantly to possible temperature induced errors.

TS100 Features

- Highly sensitive system based on array of high gain infrared optics provides excellent accuracy at low turbidities.
- Exceptional ambient light rejection is achieved with infrared transmission modulation.
- Advanced polymer coating of optical system resists fouling and minimises field maintenance requirements.
- Digital temperature compensation technology ensures stable performance over a wide temperature range.

TS300 Features

- Storage of measured data within the sensor for long periods.
- Easy configuration of logging parameters and uploading of logged data.
- Automatic transfer of data to a central office simply by attaching a data modem or mobile phone.
- Improved linearity and accuracy through the use of microprocessor based compensation.
- Facility to set alarm conditions which trigger additional measuring equipment.
- Lithium battery pack option for fully self-contained operation.
- Compact sensor body eliminates the added deployment costs of a separate data logger.

With all the features of a conventional data acquisition system in one compact package, the Greenspan Analytical 300 Series intelligent sensors provide the most cost-effective solution available today where combined measurement and data collection functions are required.



Specification	Model TS100	Model TS300	Model TS1200
Standard ranges available	0-50NTU, 0-100NTU, 0-250NTU, 0-500NTU, 0-1000NTU & 0-2,000NTU Other ranges available on request		
Linearity	+/- 3% FS	Same as TS100	Same as TS100
Temperature compensation	0-50°C	Same as TS100	Same as TS100
Supply voltage	10 - 14V Reverse polarity protected Surge protected to 2kV	Same as TS100	Same as TS100
Warm up / reading time	2 sec	Same as TS100	Same as TS100
Outputs	4-20mA, 0-1V or 0-2.5V	RS232	SDI-12
Dimensions	Length 344mm OD 47mm (Stainless Steel or Delrin)	Same as TS100	Same as TS100
Weight	1.47kg (Stainless Steel) 650g (Delrin)	Same as TS100	Same as TS100
Wetted materials	316 Stainless Steel, Delrin, Acrylic	Same as TS100	Same as TS100
Software supplied	N/A	AQUAGRAPH, SMARTCOM	N/A

Applications

- Effluent monitoring,
- River and stream measurements
- Estuaries and runoff studies
- Forestry and catchment monitoring



Logging parameters and schedules are set up using Greenspan Analytical's easy to use graphical software package, Smartcom, which runs on IBM compatible PCs.

Graphical representation of data can be made using Greenspan Analytical's AquaGraph software. The software makes graphing your data simple and allows data to be exported in different formats.

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. Greenspan Analytical offers the reassurance of integrated expert field advice, via its affiliation with sister technical services company Greenspan.

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

Greenspan Analytical and Greenspan 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.