

# The Greenspan Multi-parameter - CS304

The Greenspan CS304 sensor facilitates the collection of multi-parameter data including:

- pH
- Conductivity
- Temperature
- Dissolved Oxygen

The compact, lightweight design of the sensor allows for easy deployment. This, combined with a 0.5MB standard memory capability (upgradable to 1MB), ensures cost savings as the sensor can be left unattended in the field longer.

The unique design of the DO sensor requires no moving parts ensuring long-term reliable field operation and low power consumption. The new patented diffusion rod sensor technology provides excellent linearity and repeatability.

The sensor is compatible with all standard Greenspan interface boxes. It can be calibrated to initiate an automatic sampler for further laboratory testing.

Cable fitting can be either integral or detachable, providing easy removal for re-calibration and when combined with

a battery pack, allows deployment with no visible surface exposure. This can eliminate vandalism where sensors are to be placed in public waterways.

With remote dial-in you can retrieve, view and graph data or reprogram the logging schedule from the comfort of your office. An electronic rain gauge can also be connected to link in rainfall data.

Designed and built in Australia and supported by Greenspan's one year warranty, the Greenspan CS304 provides a remarkably compact, multi-parameter sensor that sets the standard for accurate, reliable, long-term water quality monitoring.

## FEATURES:

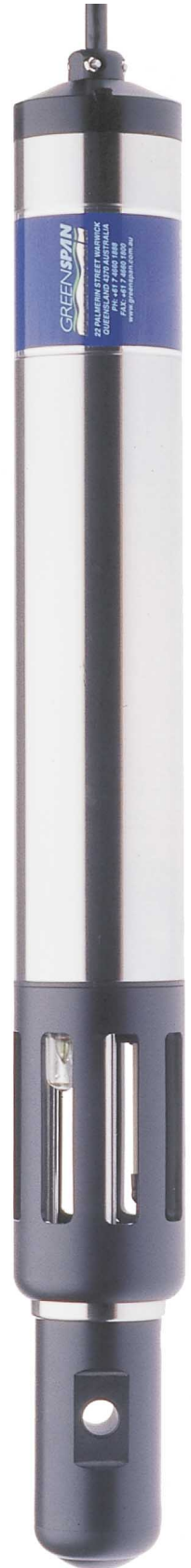
- Multi-parameter
- 60mm diameter
- Inbuilt logger with 0.5MB standard memory (upgradable)
- Can initiate automatic sampler
- Fully submersible

## BENEFITS:

- Long-term unattended performance
- Intensive logging capability
- Cost effective
- Accurate reading

## APPLICATIONS:

- Aquaculture
- River Surveys
- Esturine Monitoring
- Wastewater Discharge
- Ground Water Monitoring



Stevens Water Monitoring Systems, Inc  
5465 S.W. Western Ave, Suite F  
Beaverton, OR 97005  
Phone: 503 . 469 . 8000 Fax: 503 . 469 . 8100  
Toll-free: (800) 452 5272  
www.stevenswater.com



## Specifications

## Model CS304

	pH	Temperature	Dissolved Oxygen	Conductivity
Standard ranges available	0 - 14	0-50°C	0 –20 ppm or 0-200% saturated	0-1,000µS/cm, 0-2,000µS/cm 0-5,000µS/cm, 0-10,000µS/cm 0-20,000µS/cm, 0-60,000µS/cm Other ranges available to order. A calibration charge applies to non-standard ranges.
Accuracy	± 0.2 pH	± 0.2°C	± 0.2 ppm for temperature range 5-35°C	0.5% over range 0-30°C normalised to 25°C 0.2% (non-normalised)
Resolution (16 bit A-D converter)	0.0015% FS	0.0015% FS	0.0015% FS	0.0015% FS
Normalisation	(Temperature compensated)	–	(Temperature compensated)	Normalised
Supply voltage	8 - 16V (Reverse polarity protected. Surge protected to 2kV.)			
Quiescent current	120µA sleep current			
Warm up time to stable reading	2 secs			
Memory	0.5MB on-board (0.5MB additional memory available to special order)			
Weight	1.5 kg			
Number of readings	128,000 readings including date & time			
Operating temperature	0 – 50°C			
Software calibration	Allows users to reset zero and adjust full scale			
Dimensions	Length 430mm OD 60mm Optional battery pack adds extra 280mm to length			
Wetted materials	Delrin, 316 stainless steel, acrylic, silicon diffusion membrane			
Vented cable	12 core polyurethane sheathed			
Software supplied	SMARTCOM: Allows users to set up logging schedules, alarm levels and comms parameters. AQUAGRAPH: Windows based tool for graphical and text presentation and export of data.			

### Standard configuration

- Calibrated to standard ranges
- Cable to requested length and terminated with data connector

### Options

- Other ranges
- Integral battery pack
- Detachable cable
- Interface for mobile phone
- A complete Delrin body can be provided for use in corrosive water

## Technical Support When You Need It

The correct choice of sensor should be supported by professional advice to ensure long term success in the field. **Stevens-Greenspan Technical Services** is dedicated to customer support and provides assistance in the selection, installation, deployment and commissioning of sensors with a full range of training and consulting services.

A full technical support and field advice service can be accessed by calling Stevens at 800 452 5272.

All Stevens-Greenspan products are designed, developed and manufactured in Australia, can be supplied at short notice and can be customized to meet most requirements.

## Other Sensors Available from Greenspan Technology

- Pressure/Depth
- Turbidity
- Electrical Conductivity
- ORP (Redox)