

# 3500 Data Logger

FOR REMOTE DATA ACQUISITION

## FEATURES

- Single channel analogue input 4-20mA
- 2 digital input state (ie TBRG)
- Remote intelligent sensor via SDI-12
- IP-68 rated
- Statistical software included
- 3 Year Warranty - Extendable to 5 years
- Australian Made

## APPLICATIONS

The ES&S-030D Data Logger is a fully sealed multi channel logger, which is powered by an internal battery or external power. The logger is supplied in powder coated aluminium diecast enclosure & rated with IP68 protection including connectors. The logger will work submerged to a depth of 30 meters.

The ES&S-030D Data Logger is capable of logging multiple analogue and digital input states.



# water monitoring solutions

The ES&S-030D Data Logger is designed as a stand alone device or for the incorporation into a Tipping Bucket Rain Gauge (TBRG). Standard mounting brackets are provided to meet most manufacturers specification. The EMS-2001 software provides statistical information such as trends and text of analogue input channels.

The ES&S-030D Data logger is supplied with software EMS-2001 (for Windows 95® or better operating system) and Operational CD Handbook.

# TECHNICAL SPECIFICATIONS

## ELECTRICAL

<b>Processor</b>	80C31
<b>Operating Temperature</b>	- 10°C to +60°C
<b>Inputs</b>	Analogue Accuracy & Resolution 1:20,000 (approx. 14.5 bit) Nominal 12 VDC switch power supplied to sensors Digital 1 x switch closure for TB rain gauge 1 x dual switch closure for rotary encoder
<b>Memory</b>	Flash EPROM Non-volatile 10 year data retention Capacity: 999,999 bytes Log interval: 10 seconds to 24 hours, software selectable
<b>Clock</b>	Crystal regulated, Real Time Accuracy: ± 10 sec / month
<b>Communication</b>	RS232 1200 / 9600 Baud 8 data bits, 1 stop bit, parity ignore
<b>Power</b>	3500-CI 2 X internal sealed lead acid batteries 12V 2.2Ah each Average recharge or exchange requirement – 4 months 3500-CE Provision for external 12 V dc power connection
<b>Consumption</b>	800 µA continuous during sleep, 35mA processing or if DTR is high

## MECHANICAL

<b>Enclosure</b>	Material Tough impact resistant ABS. Protection IP67
<b>Connectors</b>	

## OPERATING PRINCIPLE

The logger is initialised in the field using an IBM compatible portable computer and SDA/WinSDA software application. A simple menu driven series of prompts are then requested of the operator. Data is retrieved by computer or through telemetry.

Once the 3500 Series Data Logger has been set up at a particular site, a field officer can visit the site and download data while logging is still active.

A simple field calibration procedure may be used by the operator for a variety of sensors including Depth, pH, Dissolved Oxygen Temperature, Conductivity and Turbidity ensuring that the 3500 Series Logger records accurate information in the appropriate scale and units, while keeping maintenance to a minimum. Real time monitoring of data on all inputs is possible using the 'Monitor' screen selection.

The internal rechargeable batteries may be charged by either mains or solar charging options using the fitted external charging connector. Alternatively the batteries may be exchanged with fully charged ones at a service visit (internal battery version).

We understand the importance of after sales service. ES&S can provide full operator training courses at your office or on site, covering all aspects of the logger and peripheral devices.