## DATA LOGGERS - HARDWARE

www.signatrol.com

SL1000 SERIES

## 8, 16 OR 24 ANALOG INPUTS -

16 BIT A/D CONVERSION -

STORES UP TO 500,000 VALUES -

- ALARM OUTPUT -
- DIGITAL COMMUNICATION -

## INTRODUCTION

The SL1000 series data loggers are 16bit, high performance data loggers. The range consists of two versions, the standard SL1000 with sample rates from 1 second to 1 day and the fast sample rate version with all 8 channels sampled at rates from 1mS to 1 second. The fast logger has 12 bit resolution. Whilst the fast log version is only available in 8 channel format the standard data logger is available with 8, 16 or 24 channels. Each channel can be configured for mA. mV, Volt or thermocouple input. An optional current excitation



card is also available if Pt100 sensors are to be used. The software is used to select the input type required. Each data logger is supplied with built in LCD display that allows on the spot fault finding and peace of mind that all is ok before the logging is started. It is a simple case of scrolling through the channels using the up / down keys on the display module.

The SL1000 data loggers are available with two memory options. 512k memory allows 250,000 samples and the 1MB version that will hold 500,000 samples when used in off-line or stand alone mode. Alternatively, the data logger can be used on-line where the readings are stored directly to the hard disk of a computer permanently connected to the data logger.

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SL1008	8 Channel 512k memory
SL1008F	8 Channel fast logger
SL1008+	As SL1008 but with 1mb memory
SL1016	16 Channel 512k memory
SL1016+	As above but with 1M memory
SL1024	24 Channel 512k memory
SL1024+	As above but with 1M memory
SL1000-SOFT	See SL1000 Software data sheet

**ORDER CODE** 

## ORDER CODE EXCITATION BOARDS

SL1000-ACC21	For 8 Pt100's
SL1000-ACC22	For 16 Pt100's
SL1000-ACC23	For 24 Pt100's

TYPICAL EXAMPLE OF USING SL1000-SOFTWARE (FOR MORE INFORMATION SEE SEPARATE SL1000-SOFTWARE DATASHEET)



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ANALOG DATA Measurement Interval

Inputs Impedance

Over-voltage protection Voltage Current T/C - linearization Resolution

Accuracy (at 25°C) Voltage Current **Cold Junction Temperature Coefficient COMPUTER INTERFACE** Standard Format Parity Baud Rate Protocol **MECHANICAL** Length Width Height Weight **Operating Temperature OPTION: DATA MEMORY** Basic size Expansion **OPTION: CONSTANT CURRENT SOURCES** Number **Constant Current** Accuracy **Temperature Coefficient** I oad POWER Mains Adaptor Voltage **Operating Current** Charging Current **BUILT IN BATTERIES** Charging time Capacity

Std Version 1second steps (min 1s) Fast log version 1mS to 1 Second (All channels sampled within the same interval) 8, 16 or 24 true differential inputs Min 400kW between + and -(51W current shunt) Min 5MW to ground reference 30V continuous on voltage and input ±10V, ±1000mV, ±100mV, ±50mV ±20mA B, E, J, K, N, R, S, T 10V range 0.4mV 40W V 1V range 100mV range 4W V 2W V 50mV range 20mA range 1W V ±0.01% to ±0.04% of FS ±0.04& of FS ±0.5°C Max 50ppm/°C Serial, subset of RS-232 8bit ASC11, 1 Star bit, 1 Stop bit None 19200 Baud **ASCII-strings** 315mm 165mm 60mm 1.7 to 2.5kg -20°C to +60°C Display + 64kB (stores 32,000 values) 512kB or 1MB

> 8, 16 or 24 time multiplexed sources 0.500mA ±0.2% at 25°C ±-10°C Max 50ppm/°C <5kW

> > 12-15VDC 400mA Max 200mA (Initial) Max 60mA (trickle charge)

Max. 24 hours with 12VDC mains adaptor 3-500 hours of operation depending on sampling interval and which add-ons are present



Every effort has been taken to ensure the accuracy of this specification, however we do not accept responsibility for damage, injury, loss or expense resulting from errors and omissions, and we reserve the right of amendment without notice.