

STYLITIS-10

PORTABLE, LOW-COST, DATA ACQUISITION & CONTROL SYSTEM

Portable, low cost, versatile data logger with:

- Versatile networking capabilities.
- 8 multi-function channels, which can be used as measurement inputs or control outputs.
- 4-button keyboard and 2-line LCD display.
- 2 serial communication ports.

MEASUREMENTS

It is capable of directly measuring voltage, current, frequency and events.

With suitable sensors it is also capable of measuring:

- Temperature, humidity, pressure.
- Wind speed and direction. It is capable of interfacing to virtually any type of anemometer and wind vane.
- Solar radiation, rain height, water speed, etc.

CONTROL

Supports user-programmable control outputs according to input values. Outputs are capable of driving small relays, LEDs, etc.

COMMUNICATION OPTIONS

- 2 built-in RS232 serial ports for communication to a PC, external modem, etc.
- Optional internal GSM modem.
- Optional internal Ethernet port.
- Optional internal wireless Ethernet module.
- SMS alarms.
- SMS messages with interval data. Easily setup dynamic web sites with frequently changing information (i.e. weather, etc)

DATA STORAGE AND RETRIEVAL

Data are compressed and stored in the internal 4MB flash memory. Data retrieval is done through a port. Data records are decompressed to columns using Set-10, the Windows software that comes with the unit. Further data manipulation and processing is possible using standard available software like Excel, etc.

SOFTWARE

Besides decompressing data files, the free Set-10 software allows a user to graphically set-up the data logger, inspect status and plot input channels in real-time.

The Set-10 software even includes a built-in web server. The server collects logger data and makes them available to other computers in the network, using Internet Explorer, Firefox, etc. Stylitis-10 commands use simple ASCII keywords. This makes it easy for users to develop their own software applications.



APPLICATIONS

- ✓ Dynamic web sites using SMS messages.
- ✓ Distributed temperature measurements.
- ✓ Low-cost weather stations.
- ✓ Environmental studies.
- ✓ Scientific experiments.
- ✓ Tank monitoring and control.
- ✓ Vehicle surveillance.
- ✓ Security systems.
- ✓ Education.
- ✓ Green building analysis

STYLITIS-10 TECHNICAL SPECS

ANALOG INPUTS

- Up to 7 single-ended input channels. Up to 3 differential and 1 single-ended input channels. Resolution: 13bit plus sign. Accuracy: $\pm 0.3\%$.
- Programmable input voltage range: min 0~125mV/ max: 0~+2,5V (Resolution: min 15 μ V/ max 305 μ V). Input impedance: 1M Ω .
- Programmable input current range: min 0~+5mA/ max 0~+50mA (Resolution: min 0,61 μ A/ max 6,1 μ A). Input impedance: 25 Ω .
- PT100/1000 resolution: 0.06 degrees.
- Wind vane resolution: 2.8 degrees.
- Analog channels individually selectable as TTL-level digital inputs.

COUNTER INPUTS

- Channel 1, 16 bit. Accuracy and resolution: ± 1 count. Input range: 0~5 kHz. Input impedance: 100k Ω .
- Selectable signal threshold. Bipolar AC signals: min sensitivity 200mV_{p-p}. Unipolar TTL signals: min sensitivity 1V_{p-p}.
- Channel 8 may be set as TTL level 16 bit counter input. Accuracy and resolution: ± 1 count. Input range: 0~5 kHz. Input impedance: 1M Ω . Min sensitivity 3V_{p-p}.

OUTPUTS (Sensor Excitation)

- 1, pulsed 2,5V. Total current 20mA. Accuracy $\pm 0.2\%$.
- 1, pulsed 0,5mA (PT100, etc.). Accuracy $\pm 0.3\%$.

DATA STORAGE

- INTERNAL NON-VOLATILE MEMORY: 4MBytes. Typical capacity (All channels, 10min interval, average only): 32 months.
- REAL TIME CLOCK: With automatic lap year correction. Accuracy: ± 60 seconds/ month.

DATA PROCESSING

- Individually programmable slope, slope² and offset for each input. Sampling: 1 Hz. Calculation of ax^2+bx+c .
- Selectable storage of *Average* only or *Average, Min, Max* values at intervals from 1 second to 60 minutes.
- Dedicated wind vane algorithm for vector averaging.

DATA TRANSFER AND PROGRAMMING

- COMMUNICATION PORT: RS232C port. 9600 baud, 8 bits, no parity, 1 stop bit. Socket is DB9M (DTE).
- PERIPHERAL PORT: RS232C port. 9600 baud, 8 bits, no parity, 1 stop bit. Socket is DB9F (DCE).
- OPTIONAL INTERNAL COMMUNICATION MODULES: Quad-band GSM Modem or Ethernet server or secure 802.11b wireless Ethernet server.

CONTROL OUTPUTS

- All channels individually selectable as Active-Low output (Open drain). Output state depends on values of input channels. Output impedance: 30 Ω . Max sink current: 60mA.
- Each output has up to 5 *Conditions* which are ORed together. At least one *Condition* must be true.
- Each *Condition* has up to 7 *Requirements* which are ANDed together. All *Requirements* must be true.
- A *Requirement* uses the measured value of any specified input channel and compares it to user-programmed values using 4 operators: *Above, Below, Between* and *Not Between*.

SMS MESSAGES (with optional GSM modem)

- SMS Alarms: on Control output change (see above).
- SMS Data: message with statistical data upon completion of an interval.

PROTECTION

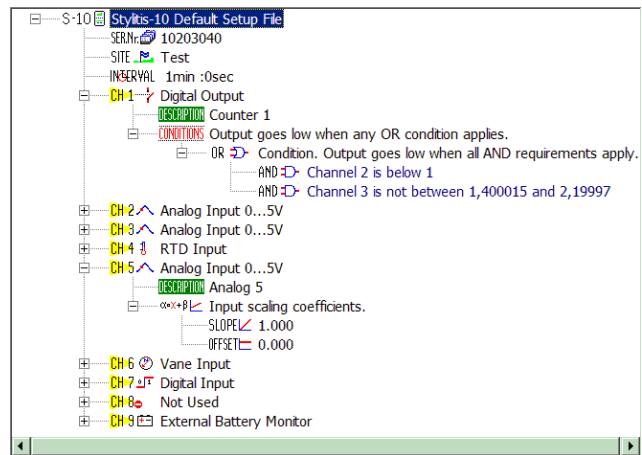
- Over voltage & fuse protection on all inputs/outputs.

POWER SUPPLY

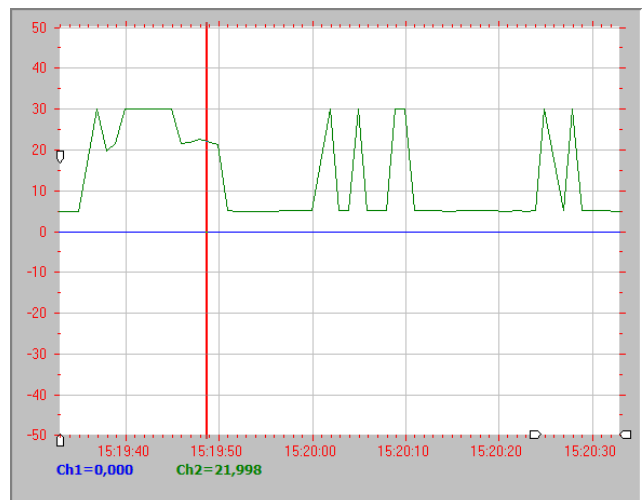
- INTERNAL BATTERY: 9V alkaline- typical life 2 weeks.
- EXTERNAL: 6~15VDC. Typical consumption: Without optional communication modules: 0.9mA (LCD off), 5mA (LCD on); With internal GSM modem: 10mA (LCD off), 15mA (LCD on).

VARIOUS

- ENCLOSURE: Plastic ABS. Desktop stand and wall mounting attachments included.
- DIMENSIONS: 18 x 10 x 4cm. WEIGHT: 200g.
- CONNECTORS: Removable screw terminal strips on front panel.
- OPERATING TEMPERATURE: -30 $^{\circ}$ ~ +70 $^{\circ}$ (LCD: 0C~+50C).
- WARRANTY: 1 Year. APPROVALS: CE.



Setup Screen



Real-time Plot Screen



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