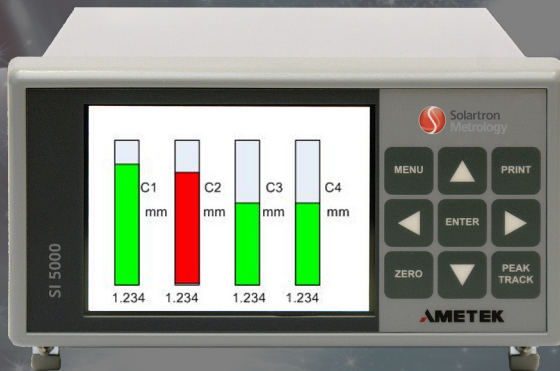Solartron Metrology

SI5000

Quick start guide

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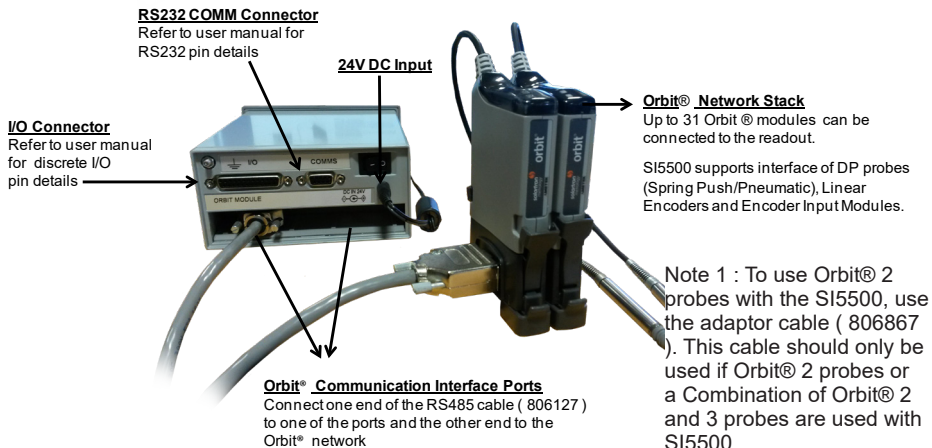http://www.solartronmetrology.com

1:0 INTRODUCTION

This Quick Start Guide specifically caters for the SI5500 readout with Orbit® Interface. The SI5500 readout can interface up to 31 Orbit Sensors and communicates through Orbit® Serial Protocol (via Orbit® Interface). It can interface with Orbit® Digital Probes, Linear Encoders and Encoder Input Modules. The readings from the sensors are displayed on the front panel LCD display.

SI5500 includes a unique feature of configuring user defined formulas/expressions for each of the measurement channel. The readout can be configured through a 9-button keypad (3x3). Basic Input Output is provided by discrete lines. A RS232 serial interface is provided for printing the current readings
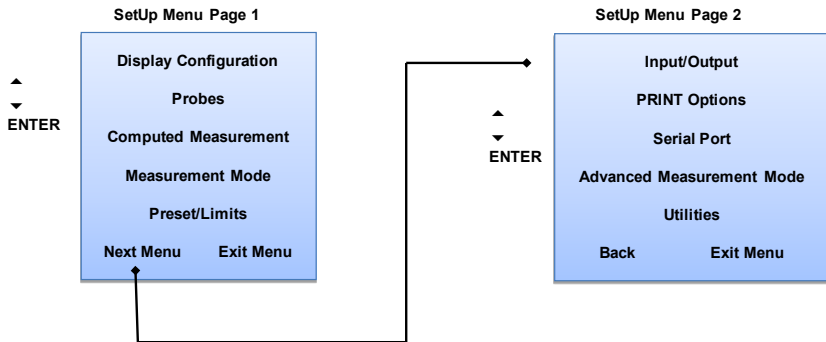
2:0 ELECTRICAL INSTALLATION

This section illustrates how to connect the unit.

RS232 COMM Connector
Refer to user manual for RS232 pin details

24V DC Input

Orbit® Network Stack
Up to 31 Orbit ® modules can be connected to the readout.

SI5500 supports interface of DP probes (Spring Push/Pneumatic), Linear Encoders and Encoder Input Modules.

I/O Connector
Refer to user manual for discrete I/O pin details

Note 1 : To use Orbit® 2 probes with the SI5500, use the adaptor cable (806867). This cable should only be used if Orbit® 2 probes or a Combination of Orbit® 2 and 3 probes are used with SI5500.

Orbit® Communication Interface Ports
Connect one end of the RS485 cable (806127) to one of the ports and the other end to the Orbit® network
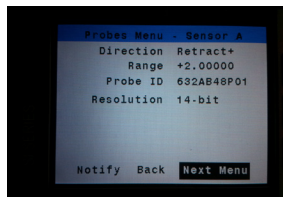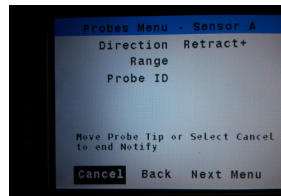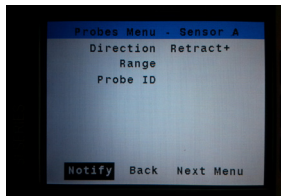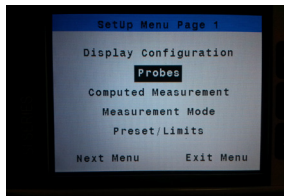
3:0 SET-UP MENU

The main Set-up Menu has two pages (Page 1 and Page 2).

The MENU screens are used to set up/configure the readout. Menu Screen can be activated through MENU key button on the keypad. The current readings display is stored and displayed back on exiting the MENU.

SetUp Menu Page 1

▲
▼
ENTER

Display Configuration

Probes

Computed Measurement

Measurement Mode

Preset/Limits

Next Menu   Exit Menu

SetUp Menu Page 2

▲
▼
ENTER

Input/Output

PRINT Options

Serial Port

Advanced Measurement Mode

Utilities

Back   Exit Menu
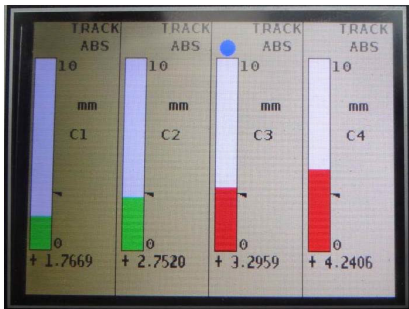
4:0 SETTING UP PROBES

After making the connections as explained in the Electrical Installation section, use the probes menu for setting up the probes. To Notify a probe follow the below procedure:

Note: To notify the probe tip has to be moved such that the readings change by about 1%. After moving the probe tip, it takes about 500 ms to update the data on the display

5:0 TAKING MEASUREMENTS

After setting up the probes as described in Setting up probes section, exit from MENU screen to see current readings on the LCD screen. The default settings on the SI5500 display sensor readings in Track mode.

The operate screen can be of Single, Dual, 4-, 8- or 16-Channel Bar Display. It can also be set to 8- or 16-Channel Text Display.

Note : Refer to "Display Configuration Menu" section in the SI5500 user manual (503147) to change the measurement mode to Peak+/-

5:0 TAKING MEASUREMENTS

5.1 To take measurements, the probe readings can be reset to a known initial value before starting the measurement

Perform a PEAK reset on all the probes - Hold DOWN arrow key for one   second

 Perform a ZERO operation to set the current reading on all channels to zero Press ZERO key

 PRESET operation - Press UP arrow key to add pre-defined PRESET values

Note : The above operations can be performed with discrete Inputs. Refer to Input/Output Menu section of SI5500 User Manual (503147) for configuration and pin details of discrete inputs

6:0 IMPORTANT FEATURES

SI5500 is versatile unit capable of performing complex operations.

- **Computed measurements** – to input mathematical equations
- **Gauging mode** – use the unit as a gauge station
- **Discrete inputs/outputs** – inputs to perform Zero, preset, print
  Outputs to run external loads
- **Serial commands** – to print readings and to Zero, preset individual readings
- **Data logging** – store measurement data on SI5500 flash memory
- **Password protection** – supervisor mode

Note : Refer to relevant sections of SI5500 User Manual (503147) for detailed instructions on using the above mentioned features.

Manual is available for download from the website: www.solartronmetrology.com