SIRIUS SD LOGGER

User Manual

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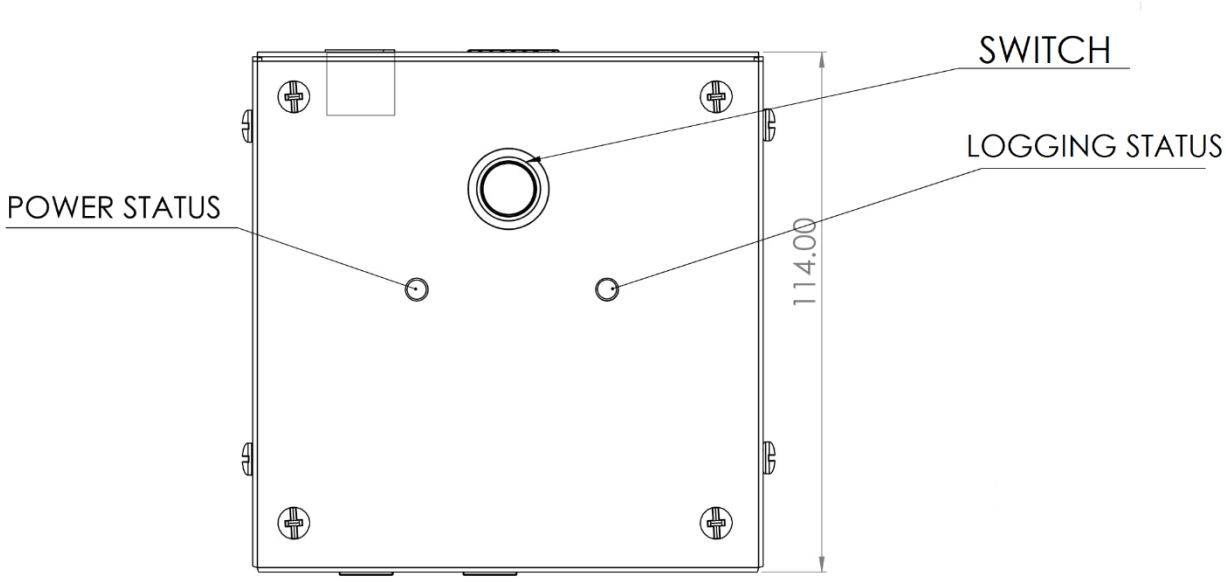
1. Product Overview:

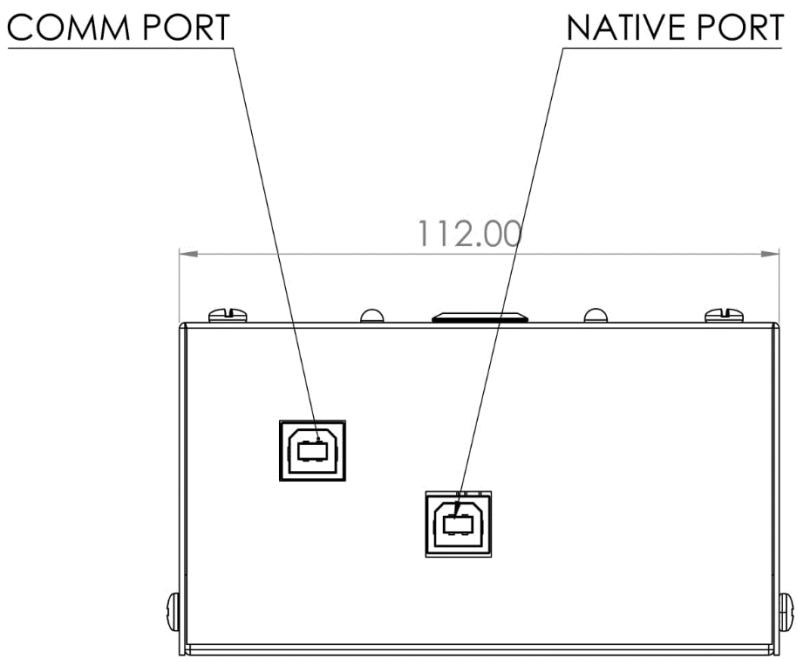
1.1 Appearance:

The appearance of the SD Logger is shown below:

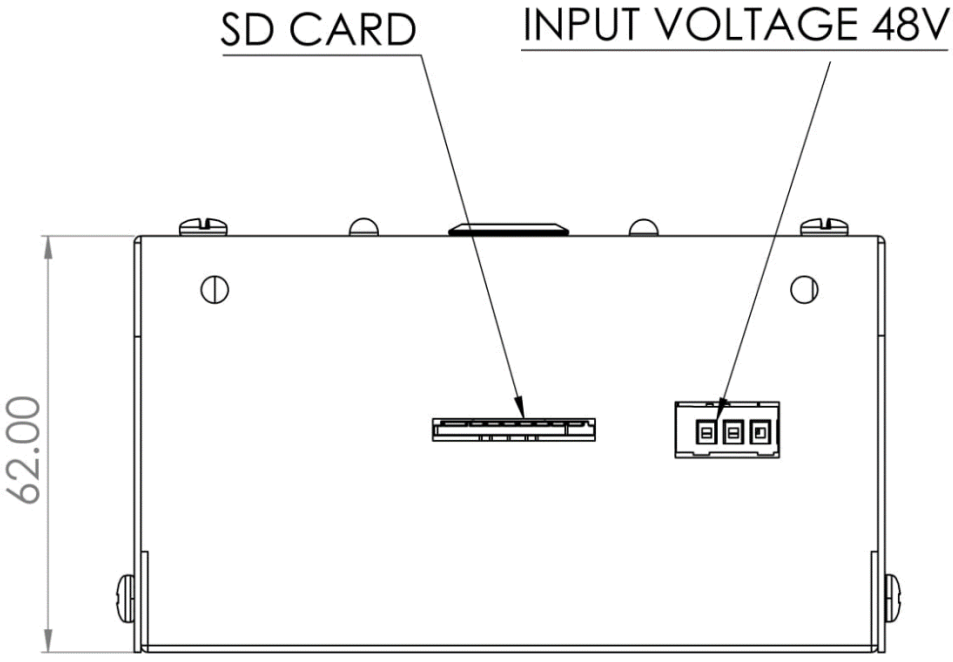
1.2 Mechanical Drawings:



Top View



Front View



Back View

2. Package contents:

1 

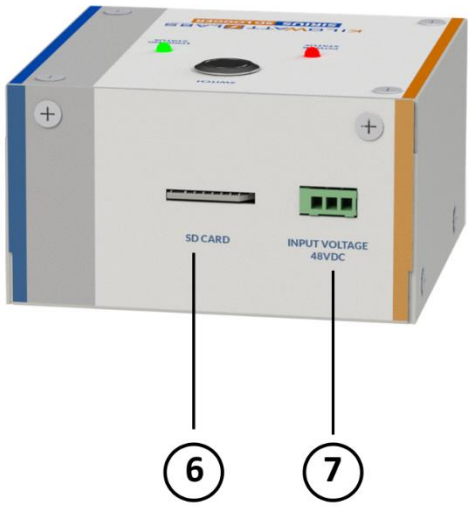
2 

3 

4 

1. SD Logger
2. USB Cable
3. Power cable
4. 8 GB SD Card

3. Product Description:



Object	Mark	Description
1	Power Status	Red LED
2	Switch	Push Button
3	LOGGING Status	Green LED
4	Comm Port	Communication Port
5	Native Port	Set Time and Date
6	SD Card	SD Card
7	Input Voltage	48Vdc input voltage

1. SWITCH:

Push Button is used to switch ON or switch OFF the data logging.

Power ON: Press and hold push button for 1 second, the LOG Status LED will turn Green. This means that SD logger has started logging data each and every minute from Sirius Module.

Power OFF: Press and hold push button for 5 seconds, the LOG Status LED will turn OFF and buzzer will give alarm for 5 seconds. This means that SD logger has stopped logging data.

2. Power Status:

Power Status LED indicates the status of input voltage of SD logger from Sirius Module.

Color	Status	Indication
Red	OFF	There is no input voltage of 48 Vdc from Sirius Module to SD Logger.
Red	ON	There is input voltage of 48 Vdc from Sirius Module to SD Logger.

3. LOGGING Status:

Logging status LED indicates status of logging data.

Color	Status	Indication
Green	ON	Data logging has started.
Green	OFF	Data logging has stopped.

4. COMM Port:

COMM Port is used for communication between SD Logger and Sirius Module. SD logger logs data every 1 minute from Sirius Module. COMM Status LED of Sirius Module will start blinking whenever it will send or receive data from SD logger.

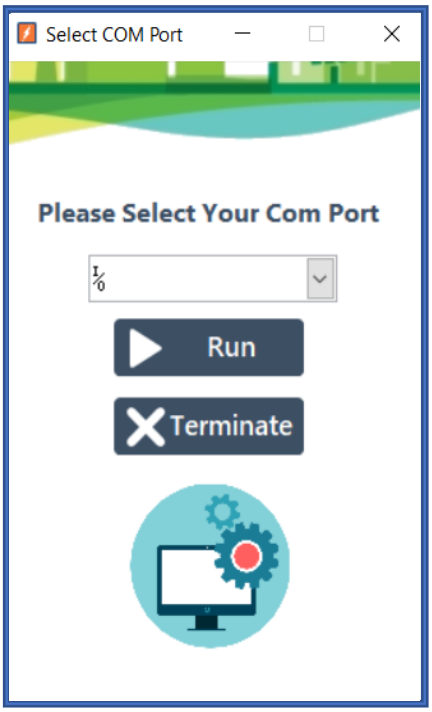
- Connect one end of USB cable to the COMM Port of SD logger and the other end to the COMM Port of Sirius Module.

Note: Do not plug out the cable from Comm port while it is communicating with Sirius Module.

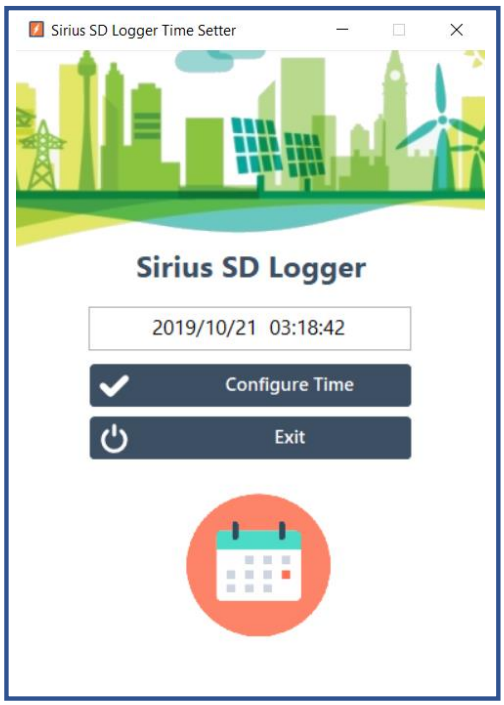
5. Native Port:

Native port is used to set time and date of Sirius Module in the beginning. Once time and date are set, you can plug out the cable from this port.

- Connect one end of USB Cable to the Native port of SD logger and the other end to the USB port of PC.
- Double click the SIRIUS SD Logger Time Setter to execute it.
- A log-in Screen will appear as shown below.



- Select the Comm port from the drop-down menu and click Run button.
- After clicking Run button, Sirius SD Logger Time Setter window will appear as shown below.



- Click on Configure Time, Time and date will set automatically from the PC OS time and date.

6. SD Card:

Size of internal memory is 8GB and SD logger can keep logging of data without any interruption. SD card Generates two files automatically based on date.

1. Module Data (MD)
2. Cell Data (CD)

- **Sirius Module Data:**

The Sirius Module data has the following format.

Module Data:

51.22**TV**/123.4**CC**/21.34**TP**/0.00**LE**/1**SV**/1**SCC**/1**ST**/4**CS**/79%**SOC**/0**RR**/0**BL**/1**RTC**/1**SD**/1**CHBL**/1**LOG**/30**DAYS**/#

Format:

Voltage/Current/Temperature/Life Energy/Voltage State/Current State/Temperature State/Calibration State/State of Charge/State of Contactor/State of Balancing/RTC Status/SD Card Status/Balancing during Charge/SD Card Logging Status/Number of SD Logging Days/

1. TV – Total Voltage in Volt
2. CC – Current in Ampere
3. TP – Temperature in degree Celsius
4. LE – Life Energy in KWH
5. SV – State of Voltage

   1 – Normal

   2 – Battery Full

   4 – Cell too Low (For cell level)

   7 – Contact Service (Problem with the device)

   9 – Low Battery

6. SCC – State of Current

   1-Normal

   2-Over Current

   3-Over Current Tolerate

7. ST – State of Temperature

   1-Normal

   2-Over Temperature

8. CS – Calibration State Flags (0000000 -> 00111111)

   bit 0 – Current Calibration (Zero not Calibrated and 1 for Calibrated)

   bit 1 – No Load Current Calibration

   bit 2 – Temperature Calibration

   bit 3 – Capacity Configuration

   bit 4 – Serial Number Configuration

   bit 5 – QC Passed Flag

   bit 6 – Reserved

   bit 7 – Reserved

9. SOC – State of Charge (integer value)

10. RR – Battery Terminal State (Zero means SSR is OFF and 1 means SSR is ON)

11. BL – Balancing State
    1 – Balancing is OFF (Default)
    2 – Balancing is ON

12. RTC – Status of real time clock of the Sirius Module.

    0 – RTC is not set or RTC is not working

    1 – RTC is running with proper time

    5 – RTC needs to configure

13. SD – State of SD Card (inside the Module).

    1 – Working

    2 – Error

    3 – Standby: Standby means SD Card or RTC has problem and SD card brought to idle to avoid dangerous errors.

14. CHBL – Balancing while charging flag. This is not applicable when connecting the modules in series.

    0 – Disabled (Default)

    1 – Enabled

15. LOG – SD Card (inside the Module) Data Logging for 30days.

    0 – Disabled (Default)
    1 – Enabled

16. DAYS – Number of data logging days from 0 to 30.

- **Cell Data:**

The Cell data has the following format.

Data:

2.58/2.58/2.58/… /2.58#

Format:

Cell_1/Cell_2/Cell_3/…/Cell_20#

It means Cell 1 to Cell 20 are of 2.58V.