

SMART WIRELESS DATA LOGGERS

FEATURES

- Exceeding Class A (High accuracy) compliance as per IEC 61724-1:2021 and IEC61400-12-1:2022
- 24 bit ADC resolution
- 16 / 8 Analog Single Ended or 8 / 4 Differential Channels
- 1000 Parameters Logged Simultaneously
- Selectable Logging and Update rates
- Connectivity over Ethernet, Wi-Fi, Bluetooth and LTE (4G) / UMTS / GPRS
- Interfaces - RS232, RS485 MODBUS RTU / MODBUS TCP & SDI-12
- Industrial Grade
- CSV data download via embedded web-page and USB
- Time synchronization via GPS and internet
- 4.3" colour touch display

ARN-SL930



APPLICATIONS

- Solar Meteorological Station
- Wind Meteorological Station
- Wireless Weather Monitoring Station
- Air Quality Monitoring
- Industrial Automation
- Water Quality Monitoring
- Renewable Energy Monitoring

DESCRIPTION

SL930 is a powerful smart datalogger with 4.3" colour touch display which can acquire measurements from multiple sensors over various analog and digital interfaces. With sampling frequency of minimum 1 sec and recording frequency of minimum 1 minute, the device exceeds the Class A (High accuracy) sampling and recording interval compliance as per IEC 61724-1:2021 and IEC61400-12-1:2022. The device communicates the data securely with the cloud (via Ethernet / Wi-Fi / LTE) as well as communicates with any SCADA system over RS485 Modbus RTU and Modbus over TCP/IP for real-time data monitoring.

The sensors are integrated with an industry leading ADC which has a resolution of 24-bit (>20 ENOB) ensuring precision data acquisition. The data logger has on board memory of 8GB with an additional feature of micro SD card expandable upto 32GB for data storage and retention for more than 5 years in operation.

The data logger is equipped with a powerful high speed processor architecture (32-bit, 900 MHz) with the capability of edge computing for AI based IoT applications.

SL930 provides easy access to logged data through webpage in local and remote networks. The 4.3" display enables the user to view the real time data locally. Data can also be downloaded to computer from the webpage or by inserting a pen drive in the device.

TECHNICAL SPECIFICATIONS

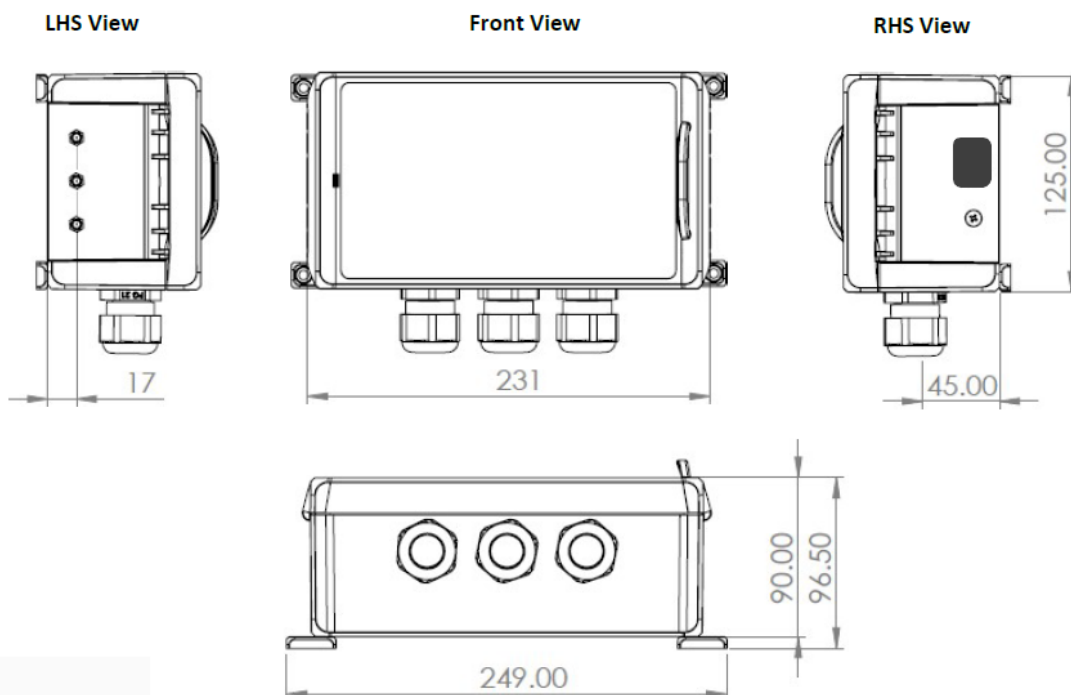
Parameter Name	Parameter Value
	ARN-SL930
ANALOG INPUTS	
Channels	8 differential or 16 single ended 24 bit
Range	0 - 5 V 0 - 1 V 0 - 100 mV 0 - 20 mA 80 - 200 Ω (PT 100) 800 - 2000 Ω (PT 1000)
Resolution	24 bit
Accuracy	±0.01 % of FS at 30 °C ±0.03 % of FS over the entire temperature range
Type	Delta - Sigma
Analog Sampling Rate	upto 200 Hz
DIGITAL INPUTS	
Digital I/P	4
Digital O/P	2
Max I/P Frequency	1 kHz
SERIAL INPUTS	
Interfaces	RS232 (x2), RS485 (x2), SDI-12
Protocols	RS232(1) : NMEA (O/P) / MODBUS (slave) RS232(2) : MODBUS (master) RS485(1) : MODBUS (master) RS485(2) : MODBUS (slave)
Baudrate	RS232 / RS485 : 9600, 38400, 19200, 57600, 115200 SDI-12: 1200
ADDITIONAL CHANNELS	
Sensor Inputs	Rain Bucket (Aeron and Davis [®] Make) Anemometer (Davis [®] Make) Air Temp Humidity (Aeron and Davis [®] Make) OPC particle sensor (Alphasense [®] Make)
On-board Sensors	Temperature Sensor
NETWORK INTERFACES	
Interfaces	Ethernet, Wi-Fi and LTE
Protocols	Ethernet / Wi-Fi / Bluetooth/ LTE: BNEP, FTP, HTTP, HTTPS TCP: MODBUS
Frequency Band	FDD LTE: B1/B3 TDD LTE: B38/B39/B40/B41 TDSCDMA: B34/B39 WCDMA: B1 CDMA2000 1x/EVDO: BC0 GSM: 900/1800 Wi-Fi: IEEE 802.11 a/b/g/n, 2.4 GHz Bluetooth: V2.1 / V3.0 / V4.0, 2.4 GHz
MEASUREMENT PARAMETERS	
Simultaneous Parameters	1000 parameters including sensor and calculated parameters
Logging Data Rate	1 minute (min.) to 24 hours (max.) 1 sec sampled data available on RS485(2) : MODBUS RTU (slave), MODBUS over TCP/IP and RS232(1) : NMEA (O/P) / MODBUS (slave) for integration with SCADA
Time Synchronization	GPS / Cellular / NTP / Manual

TECHNICAL SPECIFICATIONS

DISPLAY	
Type	TFT LCD Touch screen
Resolution	480 × 272 Pixels
Size	4.3"
STORAGE	
SD Card memory	8 GB (expandable upto 32 GB)
USB	Data retrieval on a Pen Drive
OTHER SPECIFICATIONS	
Micro-processor	32-bit
LED Indicators	Power, USB data download, Internet
RTC	Onboard with 3 V coin cell
ELECTRICAL	
Voltage I/P	9 to 28 V DC
Power Consumption	<15 W
Batteries	Additional accessory, needs to be purchased separately
ENVIRONMENT	
Operating Temperature	-40 °C to +70 °C
Protection	IP65
Enclosure Material	PC UV protected
Dimensions	231 (L) × 125 (W) × 90 (H) mm
Weight	<1 kg

MECHANICAL DIMENSIONS

All dimensions in mm

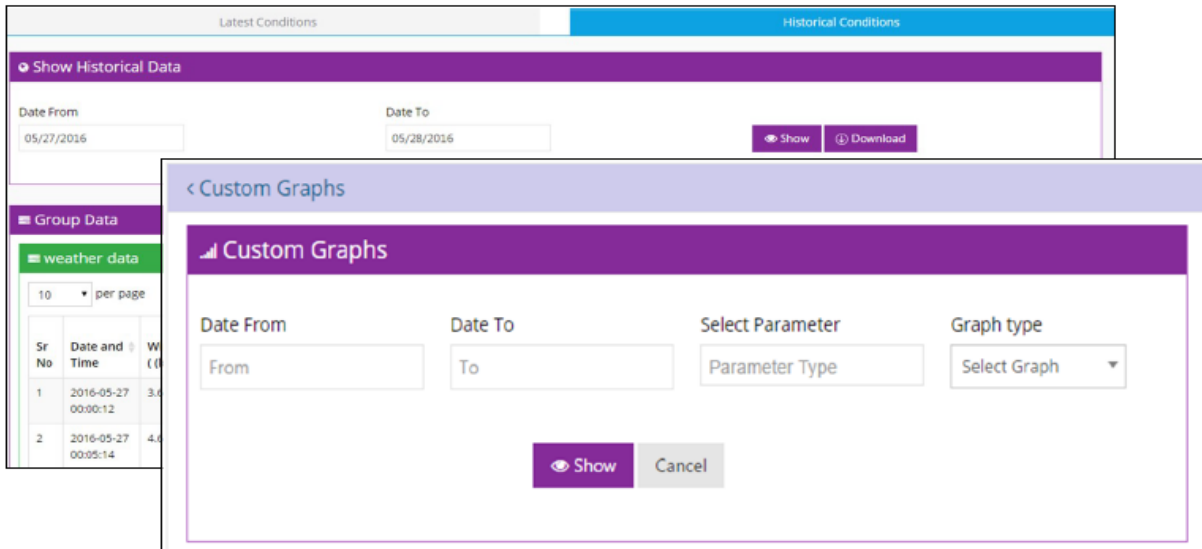


Preliminary Datasheet
Subject to change without prior notice

Datasheet Ver. 1.1.2

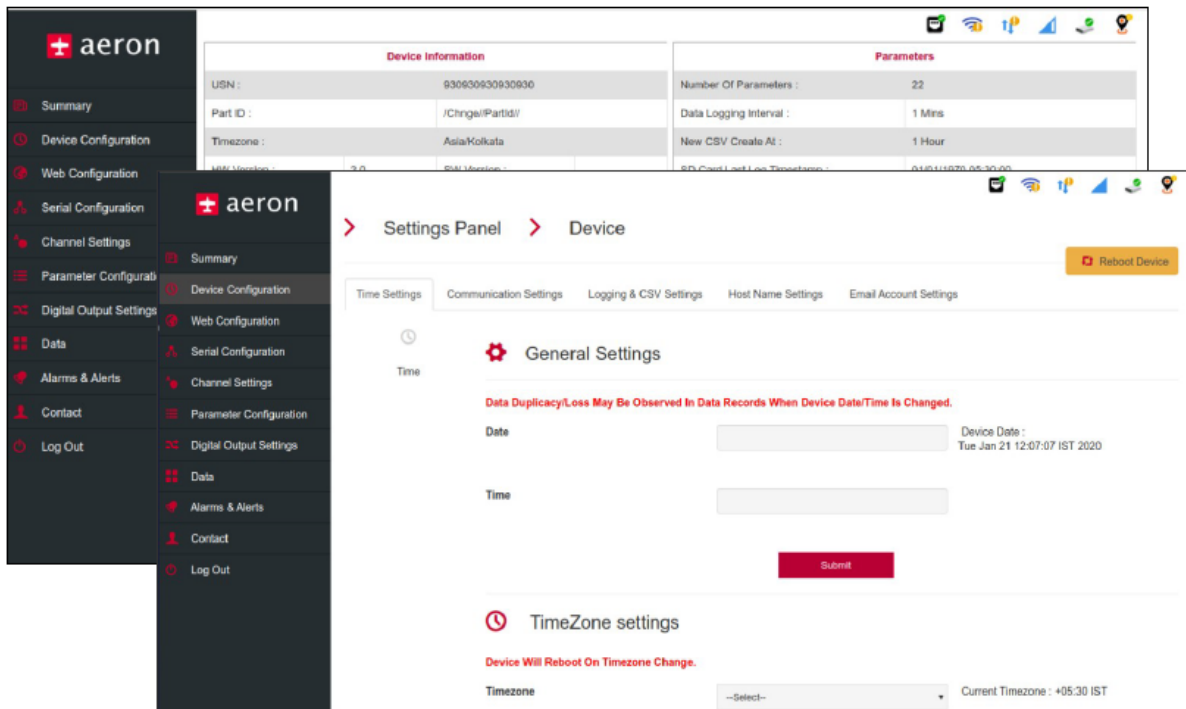
AERON LIVE

Aeron Live a user-friendly cloud service from Aeron, for 24x7 data storage and analysis.



EMBEDDED WEBPAGE

Configuration made easy through embedded web server.



ORDERING INFORMATION

ARN—SL930

Product Code: 90036