SMART WIRELESS DATA LOGGERS

FEATURES

- 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 and SDI12
- Industrial Grade
- CSV data download via embedded web-page and USB
- Time synchronization via GPS and internet

XTM XG920
XTM XG930

Note: This is a representational image

APPLICATIONS

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

DESCRIPTION

XTREME is a family of powerful and smart dataloggers which can acquire measurements from multiple sensors over various analog and digital interfaces. The device communicates the data securely with the cloud (via Ethernet / Wi-Fi / Bluetooth / LTE) for real-time environment and industrial process monitoring.

The sensors are sampled at the rate of 200 Hz with industry leading ADC which has a resolution of 24-bit (>20 ENOB) ensuring precision data acquisition. The devices have an external storage upto 32 GB which can store up to 100 parameters for 5 years with logging interval of 1 min (the data retention period depends on external storage, number of parameters and logging intervals). The device has a high speed processor architecture (32-bit, 900 MHz) with the capability of edge computing for AI based IIOT applications.

XTREME provides easy access to logged data through webpage in local and remote networks. Data can also be downloaded to computer from the webpage or by inserting a pen drive in the device.

VARIANTS

XG920 (Product Code: 24008)
XG920 has 8 analog channels with 24-bit resolution (4 differential channels or 8 single ended channels). This model consists of communication over Ethernet, Wi-Fi, Bluetooth and LTE (4G).

XG930 (Product Code: 24009)
XG930 has 16 analog channels with 24-bit resolution (8 differential channels or 16 single ended channels). This model consists of communication over Ethernet, Wi-Fi, Bluetooth and LTE (4G).

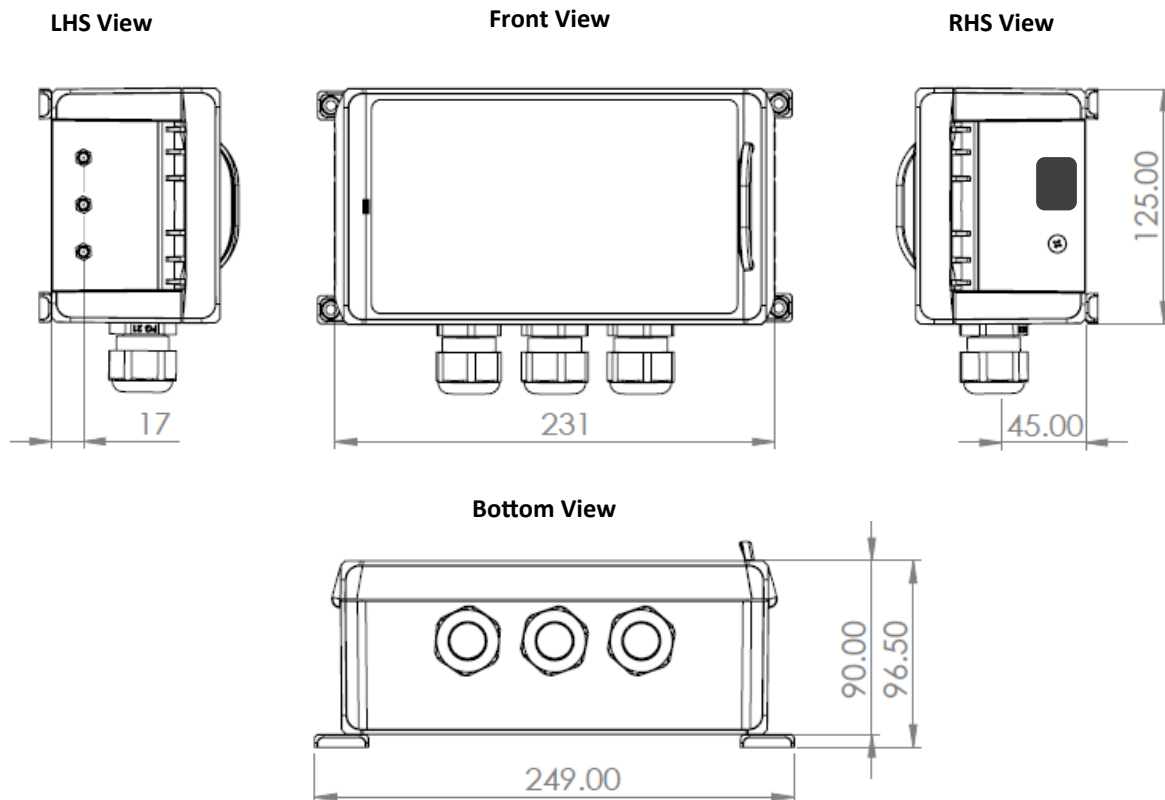## TECHNICAL SPECIFICATIONS

PARAMETER NAME	PARAMETER VALUE	
	XTREME	
	XTM XG920	**XTM XG930**
ANALOG INPUTS		
Channels	4 differential or 8 single ended 24 bit	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	±0.03 % of FS at 30 °C ±0.06 % of FS over the entire temperature range	
Type	Delta - Sigma	
Analog Sampling Rate	upto 200 Hz	
DIGITAL INPUTS		
Digital Input	4	
Digital Output	2	
Max Input Frequency	1 kHz	
SERIAL INPUTS		
Interfaces	RS232(x2), RS485(x2), SDI12	
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 SDI12: 1200	
ADDITIONAL CHANNELS		
Sensor Inputs	Rain Bucket (Aeron and Davis[R] Make) Anemometer (Davis[R] Make) Air Temp Humidity (Aeron and Davis[R] Make) OPC particle sensor (Alphasense[R] Make)	
On-board Sensors	Temperature Sensor	
NETWORK INTERFACES		
Interfaces	Ethernet, Wi-Fi, Bluetooth 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 second (min.) to 24 hours (max.)	
Time Synchronization	GPS / Cellular / NTP / Manual	

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PARAMETER NAME	PARAMETER VALUE	
	XTREME	
	XTM XG920	XTM XG930
STORAGE		
Internal Backup Memory	1 GB	
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 Input	9 to 28 V DC	
Power Consumption	<10 W	
Batteries	Additional accessory, needs to be purchased separately	
ENVIRONMENT		
Operating Temperature	-40 °C to +70 °C	
Protection	IP65	
Housing	PC UV Protected	
Dimensions	231 (L) x 125 (W) x 90 (H) mm	
Weight	<1 kg	

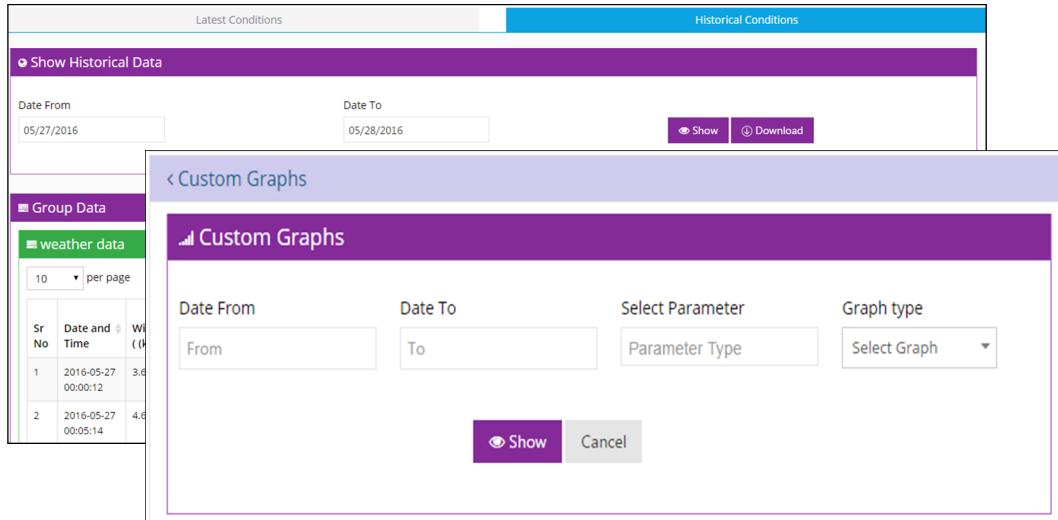## MECHANICAL DIMENSIONS

All dimensions in mm

LHS View **Front View** **RHS View**

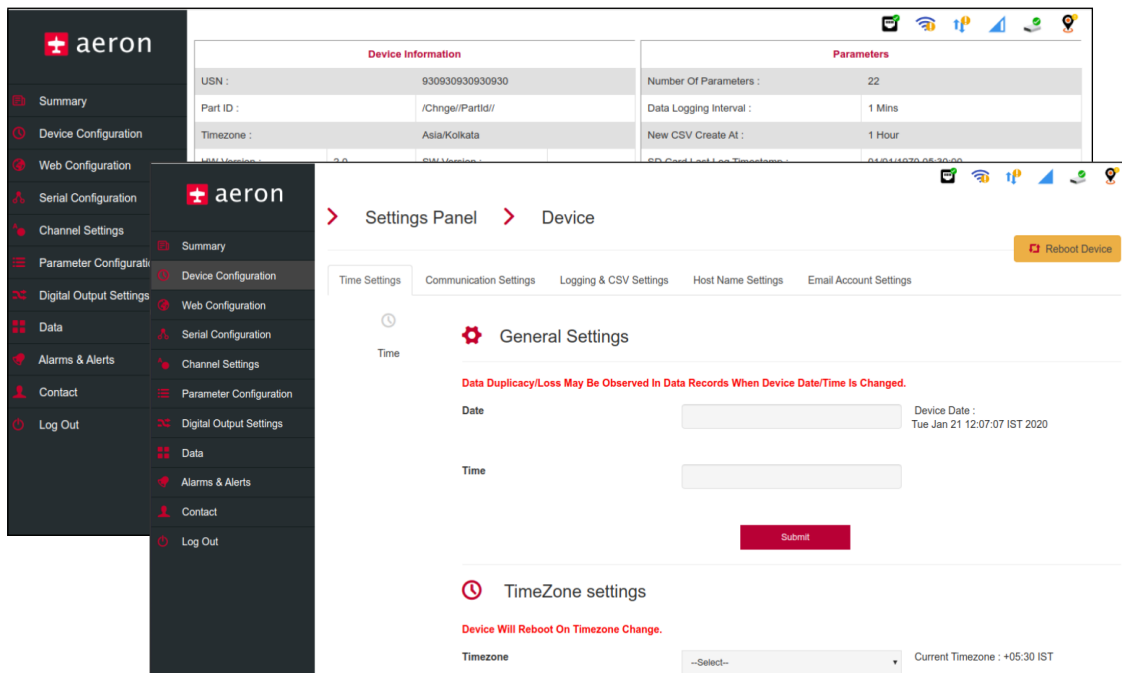
Bottom View

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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

XTM - XG9X0

2 : 8 Analog Channels (Product Code: 24008)

3 : 16 Analog Channels (Product Code: 24009)

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