XTREME - Smart Data Logger

with built in Display

Class A compliant Data logger as per IEC61724.1:2021 and IEC61400-12-1:2022

XTREME is a robust family of smart dataloggers adept at acquiring measurements from multiple sensors through diverse analog and digital interfaces. Ensuring secure data transmission to the cloud, this powerful device is designed for precision data acquisition in a wide range of applications.

DESCRIPTION

The XTREME series comprises advanced and intelligent data loggers designed to capture measurements from diverse sensors through various analog and digital interfaces. With a sampling frequency of 1 Hz and a logging frequency of at least 1 second, the device adheres to the high-precision Class A standards for sampling and recording intervals according to IEC 61724-1:2021 and IEC 61400-12-1:2022. Secure data transmission to the cloud is facilitated through Ethernet, Wi-Fi, or LTE, while real-time monitoring with SCADA systems is achieved via RS485 Modbus RTU and

Modbus over TCP/IP.

Powered by a robust 32-bit, 900 MHz processor architecture, and an industry leading ADC, boasting a

24-bit resolution, the XTREME data logger o er high precession data acquisition and supports edge computing capabilities for Artificial Intelligence (AI)based Industrial Internet of Things (IIOT) applications.

SL930 provides easy access to logged data through web page 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 web page or by inserting a pen drive in the device. Accessing logged data is convenient through a dedicated web page accessible in both local and remote networks. Additionally, data retrieval is facilitated through direct download from the web page or by inserting a pen drive into the device, providing flexibility and ease of use for diverse data management needs.

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PRODUCT FEATURES



Compliance

The device complies with Class A sampling and logging intervals as per the IEC61724-1:2021 and IEC61400-12-1:2022 standards.

24 Bit ADC Resolution

The data Logger features a 24-bit ADC (>20 ENOB), ensuring precise data acquisition, and measures voltage levels $<10\mu$ V for accuracy.





DATASHEET

Multiple Input Channels

Supports 16/8 single-ended or 8/4 di erential analog channels for 0-100µV, 0-5V, 4-20mA, PT100, and PT1000 inputs.

Multiple Interfaces The device of

various interfaces including SDI12, RS232, Modbus RTU (RS485 master/slave), and Modbus TCP/IP.



Communication The data log

enables web server communication through WiFi, 4G (LTE), GPRS, and Ethernet connections.





Time Synchronization The device

ensures precise time synchronization via built-in GPS, supplemented by NTP and RTC methods for accuracy and reliability.

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Memor y The device stores data for

over 5

years on 8GB internal memory in .csv format. It supports up to 32GB micro SD card for extra storage

APPLICATIONS

Solar WMS

Environment Monitoring



Environment Protection Housed in

an IP65 enclosure, ensuring durability and sustained performance in challenging environments.

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Power Consumption

The device functions as an energye icient data logger, operational within a voltage range of 9 to 28 V DC.

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Wind Metmast

Energy Management and Process Monitoring



TECHNICAL SPECIFICATIONS

XTREME	XTM SL920	XTM SL930		GSM: 900/1800 Wi-Fi: IEEE 802.11 a/b/g/n,				
ANALOG INPUT				2.4 GHz				
Channels	4 di erential or	8 di erential or		Bluetooth: V2.1 / V3.0 / V4.0, 2.4 GHz				
	8 single ended	16 single ended	MEASUREMENT PARAM	1ETERS				
Range	0 - 5 V		Simultaneous	1000 parameters including				
	0 - 1 V		Parameters	sensor and calculated parameters				
	0 - 100 mV		Sampling interval	1 Hz (IEC 61724:1-2021 and				
	0 - 20 mA			IEC 61400-12-1 complaint) User selectable from 1 minute (min.)				
	80 - 200 Ω (PT 100)		Average data logging	to 24 Hrs (max.)				
	800 - 2000 Ω (PT 10	000)						
Resolution	24 bit		Instantaneous data logging interval	1 second for all parameters				
Accuracy	±0.01 % of FS at 30 ±0.03 % of FS over	°C the entire temp range	Parameter data types	Instantaneous, Average, Standard Deviation Minimum and Maximum				
				3 - second Wind Gust with Wind direction				
DIGITAL INPUTS				1 - minute Wind Gust with Wind direction				
Digital Input	4 2 1		Time Synchronization	GPS / Cellular / NTP / Manual				
Digital Output	kHz							
Max Input Frequency			STORAGE					
SERIAL INPUTS			Internal Backup Memor y	8 GB				
Interfaces	RS232(x2), RS485(x2), SDI12	SD Card Memory	8 GB (Expandable upto 32 GB)				
Protocols	RS232(1) : NMEA (0	D/P) / MODBUS (slave)	USB	Data retrieval on a Pen Drive				
	RS232(2) : MODBU	JS (master)	OTHER SPECIFICATIONS					
	RS485(1): MODBU	S (master)	Micro-processor	32-bit				
	RS485(2) : MODBU	S (slave)	Display size	4.3" Touch screen display				
Baudrate	RS232 / RS485 : 96	00, 38400, 19200,	RTC	Onboard with 3 V coin cell				
	57600, 115200, SE	112: 1200						
ADDITIONAL CHANNEL	S		ELECTRICAL					
Sensor Inputs	Rain Bucket (Davis	R Make)	Voltage Input	+9 V to +28 V DC				
	Anemometer (Dav	sR Make)	Power Consumption	<10 W				
	Air Temp Humidity	(Aeron and DavisR Make)	Batteries	Additional accessory, needs to be				
	OPC particle sense	or (AlphasenseR Make)	D	purchased separately 30V DC				
On-board Sensors	Temperature Sens	or	Reverse voltage protection					
NETWORK INTERFACES	6		ENVIRONMENT					
Interfaces	Ethernet, Wi-Fi, Bluetooth and LTE		Operating Temperature-40 °C to +70 °C					
Protocols	Ethernet / Wi-Fi / B	luetooth / LTE:	Protection	IP65				
	BNEP, SFTP, FTP, H	HTTP, HTTPS	Housing	PC UV Protected				
	TCP: MODBUS		Dimensions	231 (L) x 125 (W) x 90 (H) mm				
	IEC 60870-5-101, I	EC 60870-5-104	Weight	<1 kg				
Frequency Band	FDD LTE: B1/B3 T	DD LTE: B38/B39/B40/B41	EMI/EMC Compliance	As per EN61326-1:2013				
	TDSCDMA: B34/B3 CDMA2000 1x/EVE		In built Surge ± 2 KV on Power line & ± 1KV on sig Protection					



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DATASHEET

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AERON LIVE

Aeron Live3 Cloud Platform a user-friendly cloud service from Aeron, for 24x7 data storage and analysis.

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Latest Conditions					Historical Conditions			
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Date From 05/27/2016			Date To 05/28/2016		Show 🕘 Download			
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Sr No	Date and 0 Time	Wi (()	From	То	Parameter Type	Select Graph 🔻		
1	2016-05-27 00:00:12	3.6						
	2016-05-27	4.6						

EMBEDDED WEBPAGE

Configuration made easy through the embedded web page running inside the logger accessible using the IP address of the data logger.

🛨 aeron		Device Information			Parameters						
	USN :		930930930930930	Number Of Parameters :	22				į.		
Summary	Part ID :		/Chnge//Partid//	Data Logging Interval :	1 Mins						
Device Configuration	Timezone :		Asia/Kolkata	New CSV Create At :	1 Hour				1		
Web Configuration	LOW Marrison -	2.0	Philipping -	Cont Last Los Tenestares	0101/0	E	The second	4.3	9		
Serial Configuration	🔁 aeron						30 IF				
Channel Settings		> Settin	gs Panel > Device								
Parameter Configurati	B Summary							C Reboot C	levice		
Digital Output Settings	Device Configuration	Time Settings	Communication Settings Logging &	CSV Settings Host Name Settings E	Email Account Setting	ps.					
Data	Web Configuration	O									
Alarms & Alerts	 Serial Configuration Channel Settings 	Time	General Settin	igs							
Contact	Parameter Configuration		Data Duplicacy/Loss May Be O	bserved in Data Records When Device Da	te/Time Is Changed						
Log Out	Digital Output Settings		Date					Device Date : Tue Jan 21 12:07:07 IST 2020			
Log out	Data					100 301211	2.07.07 101	2020			
	Alarms & Alerts		Time								
	Contact										
	Log Out			Submit							
	g Log our				_						
			TimeZone set	tings							
			Device Will Reboot On Timezo								
			Timezone			Current Time	304 : 40474	10 101			
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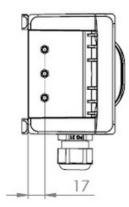
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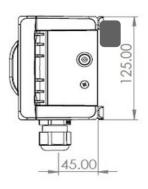
MECHANICAL DIMENSIONS All dimensions in mm.

LHS View

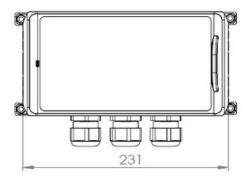


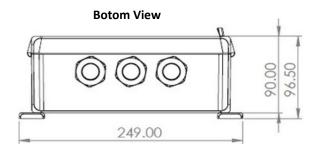
RHS View

DATASHEET



Front View





ORDERING INFORMATION

XTM - SL9<mark>X</mark>0

- 2:8 Analog Channels (Product Code: 90035)
- 3: 16 Analog Channels (Product Code: 90036)



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