

# LM-XS<sup>Pro</sup> ULT Series Datalogger



The Ultra-Low Temperature series data logger records temperatures in a broad line of applications such as monitoring blood plasma, vaccines, pharmaceutical, frozen foods and shipping containers. The **LM-XS<sup>Pro</sup> ULT (Ultra Low Temperature) Data logger** is an external sensor data logger meeting the requirements of **WHO PQS E006/TR06.4**. It displays "✓" if the temperature remains within the recommended limits, and an "X" is displayed if the hot or freezing temperature is exceeded for a period of time above the recommended limits. It gives an audio-visual alarm for any violations of temperature. It stores the data up to 120 days and user can see the history data up to last 30 days without downloading or connecting the device to the computer. All the parameters and alarm limits can be configured using software application. Intuitive menus and large display make it easy to use. It comes with individual NABL traceable calibration certificate. Accurate and reliable working makes it the ideal temperature monitoring solution for any application involving ultra low temperature recording.

## Features:

- 120 days of data storage
- Large intuitive display
- Display resolution of 0.1
- Storage resolution of 0.01
- Fully user programmable configuration
- Alarm Audio-Visual
- Tags for Alarm, Sensor Open and Time Settings
- History data view of last 30 days
- Battery Life of more than 1 year\*
- Battery life indicator on display
- User Replaceable Battery

\*If data is stored at 5 min interval, total buzzer on time for 15 Secs/day and display OFF mode.

## Specifications:

### General

Remote Sensor	RTD(PT-100); Probe: diameter 5 mm, length 50 mm; spring 50 mm, 3.5-meter-long Cable
Temperature Measurement Range	-200 °C to + 200 °C (-328 °F to +392 °F); External Sensor (Fixed installation)
Accuracy	± 0.5 °C for the range -200 °C to + 200 °C ± 0.7 °C otherwise
Resolution	0.1 °C display and 0.01 °C for storage
Unit of Measurement	Data in °C. User has an option to view the data in °F
Calibration	Each device accompanies NABL (ISO/IEC 17025) traceable certificate
Alarm*	Audio-Visual.
Alarm Low Settings*	<= -0.5 °C for more than 60 minutes
Alarm High Settings*	>= 8.0 °C for more than 10 hours
Response Time	T90 < 10 minutes as per EN12830:1999
Logging Interval*	Measurement interval 1 minute and User programmable store interval from 1 minute to 18 hours
Delayed Start Option	Yes, Start delay from 0 sec to required no. of days by selecting date and time in the software

### Power Requirement:

Battery*	Non-Replaceable 3.0 V 950 mAh; CR2477 Panasonic (or Equivalent) Coin Cell Battery;
Battery Life	More than 1 year battery operating life with shelf life of 1 year (if data is stored at 15 minutes interval and display OFF mode). The battery indicator on the display provides information on the remaining lifetime.

\*: Dispose or recycle the Battery and LM-XS<sup>Pro</sup> ULT in accordance with the WEEE 2012/19/EU guidelines or your local regulations. For the suitable recycling, the device may also be returned to the manufacturer.

### Environmental Specification:

Temperature during Transportation and Storage – Device inactivated	-30°C to 60°C
Temperature during operation (Device)	5°C to 60°C (EN12830:1999 Table3, Climatic Type A)
Humidity During Transportation, Storage and usage	5 to 95% RH non-condensing



## PC Interface and Software:

PC Interface	Data of more than 30 days can be extracted using LMViewXS-E006-Uni software. History data of 30 days can be seen using device keyboard and display without attaching to PC.
Software Compatibility	LMViewXS-E006-Uni is compatible with Windows Operating System currently supported by Microsoft
Connectivity	USB 2.0 Type-A ports Compatible; Data Download Time: approx. 6 minutes for full data download

## Human Interface:

Display Type	Character LCD Display with Min, Max, Battery Level Indication, OK/Alarm, calendar, clock, duration, delay counter, Alarm high and Low, Alarm marker, Bell symbol, REC/Pause indication and Current reading with measurement unit
Memory Size	30 days overview on the display/ PDF report up to 120 days at store interval of 5 mins using LMViewXS-E006-Uni Software
Activation	Device activation by long press of "UP" key for more than 10 seconds. Please refer to the operating manual for more details.
De-Activation	De-activation is automatically occurred when preset stop time or maximum number of readings has reached. De-activation is possible manually by giving STOP command from software Application.
Status Indicator	RUN: Red LED flashes while device is activated. STP: Red LED flashes while device is not activated.
Alarm Visual	Flashing temperature reading on display along with ▲ or ▼ arrow for high or low alarm with bell symbol.
Alarm Audio*	Buzzer Output > 65 dBA. Buzzer will beep in alarm high/low condition.
Alarm Acknowledgement*	After alarm acknowledgment, Buzzer will be deactivated for Alarm off delay.
Power ON Indication	"RUN" LED blinks flashes in active mode; LCD shows temperature data along with "REC" and alarm indications if any.
Mounting Device	Through 2 holes provided. Refer to operating manual for details
Material	Polycarbonate Plastic: non-breakable, non-corrodible housing
Warranty	12 months from the date of dispatch. Refer to warranty certificate for more details.
Service Provision	No user serviceable parts inside.

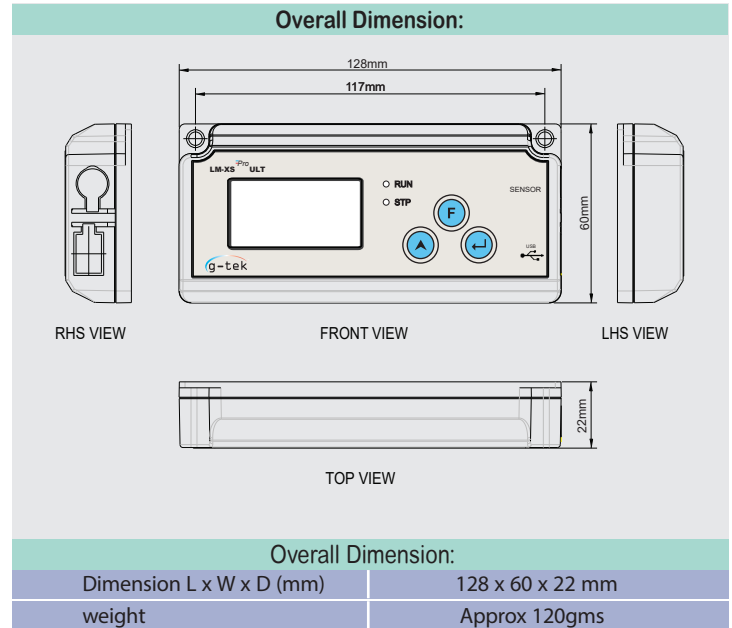
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## Physical Characteristics:

Overall Dimension (L x W x H) mm	128 x 60 x 22 mm
Weight	Approximate 120 gms

## Standards:

Electromagnetic Compatibility	IEC 61000-6-2/6-3
Resistance to Electrical Storms	IEC 61000-6-2; (IEC 61000-4-2 Basic Standard for applicability of tests)
IP Rating	IEC 60529: IP 64 (External Sensor not Plugged in);
Impact Resistance	5 drops from 1 meter onto concrete floor at room temperature with battery in place. Device does not get damaged and there is no loss of calibration.
Vibration	EN12830:1999 Clause 4.9.3.2 and Test Method 5.6.6
RoHS	Compliant (EU directive 2011/65/EU)
Verification	In accordance with PQS verification protocol E006/TR06.VP.4



Dealer / Representative

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The specifications given above are an overview, and may be or may not be available in all product variants, or at an additional cost. The company reserves the right to change the specifications without prior notice, as the company follows a continual improvement philosophy for its products.



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