LM^Pro^ H User Programmable **Datalogger**

g-tek

Series LM^Pro^ H Data logger

G-Tek data loggers (LM^Pro^ H) are Easy to Use, Accurate and Affordable solutions to monitor and record temperature and humidity – environmental parameters that are critical to a wide variety of industries. It also offers a choice of PC connectivity through USB port. These data loggers are ideal for all applications where monitoring proper environmental conditions are paramount. These are Programmable and reusable temperature and humidity data loggers. They are available in a variety of models and are configured from the PC to record and monitor data independently. Direct USB connectivity eliminates need for the cable and improves ease of operation. Data loggers come with individual NABL traceable calibration certificate.

Features:

- Up to 50000 Data Records
- Logging Interval is user programmable from 5 sec to 18 hours
- Multi character LCD Display with Rec, Min, Max, Battery, OK/Alarm with Event type and Current Reading
- View Min and Max On display over entire batch on click of a button
- Display and Storage resolution of 0.01
- Battery Life of > 1 year*
- User Replaceable Battery
- Fully user programmable multiple Alarms settings
- Insert instantaneous data (TAG) with time stamp
- Configure and Download multiple data loggers in same file
- Direct USB connection to PC port

*If data is stored at 15 min interval and display OFF mode in recommended operating condition.

Specifications:

General

Integrated Sensor	Solid state MEMS Sensor#
Temperature Measurement Range	-20 °C to + 60 °C (-4 °F to +140 °F)
Accuracy	± 0.5 °C for the range +10 °C to 40 °C
	± 0.7 °C otherwise
Resolution	0.01 °C - Display and storage
	0.01 %RH – Display and storage
Humidity Measurement Range	0 to 100 %RH
Accuracy Humidity	± 3 %RH for the range 20 to 80 %RH
	± 5 %RH otherwise
Unit of Measurement	Temperature in °C (User has an option to view in °F)
	Humidity in %RH
Calibration	Each device accompanies NABL (ISO/IEC 17025) traceable certificate
Alarm	Visual
Alarm Settings	Fully user programmable four alarms for temperature and humidity with alarm type(High/Low), event type(single/cumulative) , alarm delay(Hr:Mn) selection for temperature and humidity.
Logging Interval	User programmable from 5 sec to 18 hours via software
Delayed Start Option	Start delay from 0 sec to required no. of days by selecting date and time in software

Power Requirement:

Battery*	User Replaceable 3.0 V 225 mAh; CR2032 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 min interval and display OFF mode). The battery indicator on the display provides information on the remaining lifetime.

*: Dispose or recycle the Battery and LMPro H 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	-20 °C to + 55 °C
Temperature during operation#	-20 °C to 60 °C (EN 12830:1999 Table3, Climatic Type C)
Humidity During Transportation, Storage and usage	0 to 95% RH non-condensing

PC Interface and Software:

PC Interface	Data of more than 1 year (for 15 min logging interval) can be extracted using LMViewE051 software.
Software Compatibility	LMViewE051 is compatible with Windows Operating System currently supported by Microsoft.
Connectivity	USB 2.0 Type-A Compatible; Data Download Time: approx. 8 minutes for full data download.

Human Interface:

Display Type	Character LCD Display with Min, Max, Battery Level Indication, OK/Alarm, Alarm High/Low with event type – single/cumulative, Bell symbol, REC indication and Current reading with measurement unit.
Display Dimension	26 x 31 mm; 0.35" TN Reflective
Memory Size	50000 data storage – for Temperature and Humidity
Memory Type	EEPROM, Non-volatile, Data retention more than 40 years
Batch Type	Stop on Full: The batch stops when the maximum number of readings is reached.
	Rollover: When the maximum number of readings is reached, data is overwritten cyclically on a first-in-first-out basis.
Activation	At preset start time by software configuration or immediate after configuration by long press of "Start" key for more than10 seconds.
De-Activation	When preset stop time / maximum no. of readings has reached; Manually by keyboard/ STOP command from software.
Status Indicator	RUN: Recording; Red LED flashes while device is storing. STP: Standby; Red LED flashes while device is not storing.
Alarm Visual	Flashing temperature reading on display along with ▲ or ▼ arrow for high or low alarm with bell symbol.
Mounting Device	Through hole provided. Refer to operating manual for dimensions 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, except battery replacement

Physical Characteristics:

Overall Dimension (L x W x H) mm	95.5 x 45 x 14.8 mm
Weight	Approx. 51 grams

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Standards:

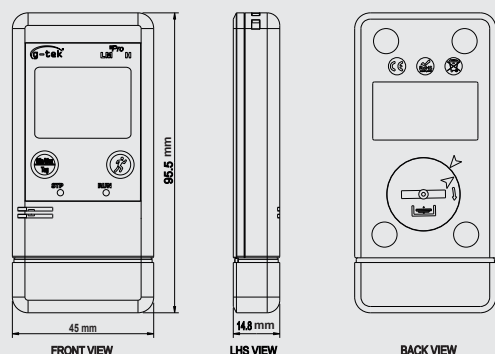|	
Electromagnetic Compatibility	IEC 61000-6-2/6-3
Resistance to Electrical Storms	IEC 61000-6-2; (IEC 61000-4-2 Basic Standard for applicability of tests)
IP Rating	IEC 60529: IP 30
Impact Resistance	5 drops from 1 meter onto concrete floor at room temperature with battery in place. Device does not get damaged and there is no loss of calibration.
Vibration	EN 12830:1999 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/TR05.VP.1

*: Available as per order code selected. Specifications are subject to change without notice.
The sensor has the highest accuracy between + 5 °C to + 60 °C and 20 to 80 %RH. If the device is exposed to high humidity for a prolonged period, the measuring accuracy decreases. Prolonged exposure may introduce shift in the sensor reading with a slow recovery time. The data logger must not be exposed to a relative humidity of 100% for longer time.

Overall Dimension:

FRONT VIEW   LHS VIEW   BACK VIEW

LMViewE051: An overview

This software is a Windows™ based application for accompaniment to the LM^{Pro} series of data logger to configure, download, view and generate the reports. Intuitive, easy to use. Connect multiple data loggers and bring their data to a single file for better presentation of data and understanding process. Also available in 21CFR Part 11 Compliant version.

Key Features:

- Intuitive and user friendly- Few keys/buttons to play with
- 21 CFR Part 11 compliant
- View audit trail based on USER, Date - time and Activity
- Non Editable data
- Every user activity is logged
- Auto logout
- Password expiry
- Configure and download multiple data loggers
- User-selectable options for Batch Type: Stop on Full, Rollover
- View multiple data logger's data as single tabular data
- View multiple data logger's data in as single graph
- Very useful for validation purpose
- Mark an event or Tag
- View Tags in graph as well
- Generate separate report for tags, summary, Alarms
- Filter the data based on date and time
- Statistical calculations – Min, Max, Average, std deviation, MKT
- Various date formats
- UTC time selection by user
- Set your own header/ footer for the report
- On site calibration/ Restore factory calibration

Dealer / Representative

Select your ORDER Code: ☐ ☐ ☐ ☐ – ☐ ☐

Example ORDER Code: **4** **1** **1** **0** – **4** **0**

Code : LM Type
  4 : LM^{Pro} Series

Code : Display
  1 : With Display

Code : Sensor Type
  1 : Temperature and Humidity

Code : Sensor Internal/External
  0 : Internal Sensor

Code : Memory
  4 : 50000 Data

Code : Store Interval
  0 : Programmable

CE

MANAGEMENT SYSTEM CERTIFICATION
DNV
ISO 9001-ISO 14001

g-tek ™
better by
performance

Manufacturers of :
- Circular Chart Recorders
- Inkless Recorders
- Paperless Recorders
- Scanners & Data Loggers
- Networked Data Loggers
- Application Software
- Web based DAQ
- Vaccine Series Data Loggers

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