



EXTECH Temperature and Humidity Datalogger User Manual

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Datalogger User Manual*

USER MANUAL

EXTECH[®]

**Model 42270 Temperature
& Humidity Datalogger**



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Introduction

Model 42270: Temperature and Humidity Datalogging Module
Model 42275: 42270 Module, Docking station, Software CD

This Datalogger can be used to monitor the temperature in greenhouses, warehouses, food transports, aircraft cabins, refrigerated trucks, containers, museums, and HVAC equipment. The Model 42270 records Relative Humidity readings in addition to Temperature readings. Programming and data retrieval instructions are included on the Software CD located in the 42275 kit or at www.Extech.com.

Description

1. Mounting hole
2. Status LEDs (Record and Alarm)
3. LCD display



Displays

LCD Display

REC: Displayed while logging readings.

HI and LOW: Displayed when the High or Low Alarm limit is exceeded.

RH%: Relative Humidity

C or F: Temperature units.

COMM: Appears when Datalogger is communicating with a PC.

Recording Status Indication

Both the RED status LED and the display indicator 'REC' will flash every 5 seconds if the sampling rate is set to 5 seconds or higher. If the sampling rate is set lower than 5 seconds, the indicators will flash every 1, 2, 3, or 4 seconds as programmed.

ALARM Status Indication

Both the YELLOW status LED and the display indicator 'ALM' will flash when the recorded value is higher than the user programmed High Alarm value or lower than the Low Alarm value. The Alarm status LED and the 'ALM' display indicator flash every 5 seconds if the sampling rate is programmed for 5 seconds or higher. If the sampling rate is set lower than 5 seconds, the indicators will flash every 1, 2, 3, or 4 seconds as programmed.

Low Battery Indication

When the lithium battery voltage nears the critical operating level, the LCD displays 'LO'. To replace the battery, refer to the Battery Replacement section.

Specifications

Front panel status: LEDs (2): RECORD and ALARM

Temperature range: -40 to 185°F (-40 to 85°C)

Temp. Resolution: 0.1° up to 99.9°; 1° from 100° to 185°

Temperature accuracy: $\pm 1.2^{\circ}\text{F}$ (0.6°C) from -4 to 122°F (-20 to 50°C), $\pm 2.4^{\circ}\text{F}$ (1.2°C) all other ranges

RH range/accuracy: 0.0 to 99.9% Relative Humidity; Accuracy: $\pm 3\%$

Datalogger Memory: 16,000 readings (8,000 temperature & 8,000 RH readings)

Sampling rate: Programmable from 1 second to 12 hours

Power supply: 3.6V $\frac{1}{2}$ 'AA' lithium battery (SAFT LS-14250)

Battery Life: 1 year: 5-second sample rate in sleep mode 3.8 months: 24-hour sample rate in non-sleep mode

Low battery Indicator: Display shows 'LO'

Dimensions: 3 x 2.3 x 0.88" (76.2 x 57.2 x 22.3mm)

Note: This datalogger cannot be used without the software and docking station included in the 42275 kit. At least one 42275 kit is required per site.

Note: The datalogger display will not switch on until activated by software.

Note: The 42270 readout may turn gray if the ambient temperature falls below 32°F (0°C). It may also darken and become unreadable if the ambient temperature exceeds 122°F (50°C). This is expected operation. In both cases, the unit will log readings normally and will continue to log throughout the specified temperature measurement range.

Battery Replacement

When low battery icon ('LO') appears, replace the Lithium CR2 battery.

1. Open Datalogger by first removing the four (4) rear Phillips screws.
2. Carefully pry off the rear of the Datalogger.
3. The cylindrical lithium battery is located on bottom of PCB board.
4. Replace the battery, observing polarity.
5. Assemble the Datalogger housing.

Two-year Warranty

FLIR Systems, Inc. warrants this Extech brand instrument to be free of defects in parts and workmanship for two years from date of shipment (a six-month limited warranty applies to sensors and cables). To view the full warranty text please visit: <http://www.extech.com/support/warranties>.

Calibration and Repair Services

FLIR Systems, Inc. offers calibration and repair services for the Extech brand products we sell. We offer NIST traceable calibration for most of our products. Contact us for information on calibration and repair availability, refer to the contact information below. Annual calibrations should be performed to verify meter performance and accuracy. Product specifications are subject to change without notice. Please visit our website for the most up-to-date product information: www.extech.com.


Contact Customer Support

Customer Support Telephone List: <https://support.flir.com/contact>

Calibration, Repair, and Returns: repair@extech.com

Technical Support: <https://support.flir.com>

Documents / Resources

	<p>EXTECH Temperature and Humidity Datalogger [pdf] User Manual Temperature and Humidity Datalogger, 42270</p>
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References

- [🌐 repair@extech.com](mailto:repair@extech.com)
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