

HOBO U14 LCD Logger - Temperature/Relative Humidity (RH) Data Logger - U14-001



Measures:

Temperature, Relative Humidity

Features:

- Faster USB data download time
- Improved Temp/RH sensor resolution
- Real-time display of Temperature and RH
- Alarm display and output ensure timely notification of out-of-range conditions
- Two models to choose from - internal Temp/RH or [external Temp or Temp/RH](#)
- Optional [Remote Alarm](#) and [Autodialer](#)
- Optional protective case for wet or condensing environments
- Compatible with HOBOWare and HOBOWare Pro software for logger setup, graphing and analysis

Qty	1-9	10-99	100+
\$US	\$230	\$214	\$196

Contact Onset at 1-800-564-4377

Description:

HOBO U14 data loggers display, record, and provide alarm notifications of [temperature](#) and humidity conditions. Receive out-of-range alarms notifications with the optional Auto Dialer or Remote Audible Alarm. These loggers are well-suited for use in manufacturing, processing, and storage environments where reliable monitoring and documentation of temperature and relative humidity conditions is critical.

Detailed Specifications:

Environmental

- Operating temperature range -20Â°C to +50Â°C, (-4Â°F to +122Â°F) , 0 to 100% RH non-condensing
- Operating relative humidity range 0 to 95%, non-condensing, noncorrosive environment

Logger Capabilities

- Capacity:
 - Temp and RH: 21,500 measurements
 - Temp Only: 43,000 measurements
- Software-selectable sampling intervals: 1 second up to 18 hours, recording times up to 1 year
- Programmable start time/date
- Recording modes: Stop when full
- Launch Modes: Immediate, Delayed
- Nonvolatile EEPROM memory retains data even if batteries fail

LCD

- Size: 33 x 50.8 mm (1.3 x 2 inches)
- Displays temperature and relative humidity simultaneously
- Displays Â°C or Â°F (selectable within host software)
- Displays memory remaining and battery level
- Displays flashing ALERT for out-of-limits conditions (selectable within host software) and stops flashing on offload or return to normal range.

Alarms

- High and low set points for both temperature and relative humidity
- Selectable delays for each set point.
- Alert conditions reset on offload or return to normal range.
- Selectable Contact Relay: Normally Closed or Normally Open
- Contact rating: 48VDC, 1A max
- Contact resistance: less than 1 Ohm
- Wire size range is 22AWG to 14AWG
- 0% Low Battery Range Communications
- Offloads data to PC or U-Shuttle via USB cable
- Readout full logger (64K) in less than 30 seconds

Timekeeping

- Time accuracy: Â±1 minute per month at 20Â°C (68Â°F).

Power

- 3 AAA Alkaline batteries, user-replaceable

Size/Weight

- 125 x 92 x 31 mm (4.9 x 3.6 x 1.2 inches)
- 170 g (6.0 oz) with batteries

Internal 12-Bit Temperature Sensor

- Measurement range: -20°C to 50°C (-4°F to 122°F)
- Accuracy: $\pm 0.21^\circ\text{C}$ from 0°C to 50°C ($\pm 0.38^\circ\text{F}$ from 32°F to 122°F); $\pm 0.13^\circ\text{C}$ (0.24°F) typical
- Resolution: 0.02°C @ 25°C (0.04°F @ 77°F)
- Response time: 15 minutes (to 90% in airflow of 1 m/sec)
- Temperature Accuracy Drift: Negligible

Internal 12-Bit Relative Humidity Sensor

- User replaceable
- Measurement range: 0-100% RH, -20 to 50°C (-4 to 122°F)
- Accuracy: $\pm 2.5\%$ from 10% to 90% RH (typical), to a maximum of $\pm 3.5\%$ including hysteresis
- Resolution: 0.03% RH @ 25°C (0.05% at 77°F)
- Response time to 90%: 2 minutes (to 90% in airflow of 1 m/sec)
- Accuracy Drift: <2% over 5 years typical
- Hysteresis: 1% typical

External Sensors

For External Sensor Specifications, see the sensor's user manual.

Battery Life

The batteries will last one year in typical conditions (logging intervals of ≈ 1 minute with weekly offloads and average temperatures greater than 10°C or 50°F). Frequent offloads and/or extreme temperatures will reduce battery life.

At temperatures below freezing (0°C or 32°F), batteries will typically require replacement every six months. In these conditions the battery level bar graph should be checked regularly.

HOBO® Data Loggers

1-800-LOGGERS