

U14-001

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

Discontinued

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. USB version of the H14 models. Faster USB data download time. Improved T/RH sensor resolution. Supported by HOBOWare (Pro and Lite) and U-shuttle.

Important Information

HOBO data loggers require HOBOWare software (USB interface cable included w/CD purchase) and a communications device. See compatible items below.



Compatible with
HOBOWare® Software

[View upgrade options](#)



Supported Measurements

Dew Point, Relative Humidity, Temperature

Features

- Faster USB data download time
- Improved Temperature/Relative Humidity sensor resolution
- Real-time display of Temperature and Relative Humidity
- Alarm display and output ensure timely notification of out-of-range conditions
- Two models to choose from - internal Temperature/Relative Humidity external Temperature or Temperature/Relative Humidity
- 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

What's in the box

Contact Us

Sales (8am to 5pm ET, Monday through Friday)

- Email sales@onsetcomp.com
- Call 1-508-759-9500
- In U.S. toll free 1-800-564-4377
- Fax 1-508-759-9100

Onset Computer Corporation
470 MacArthur Boulevard
Bourne, MA 02532

Technical Support (8am to 5pm ET, Monday through Friday)

- Contact Product Support www.onsetcomp.com/support/contact
- Call 1-508-759-9500
- In U.S. toll free 1-877-564-4377

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

Environmental

- Operating temperature range -20°C to +50°C, (-4°F to +122°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 °C or °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: ± 1 minute per month at 20°C (68°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° to 50°C ($\pm 0.38^\circ\text{F}$ from 32° 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 at 25°C (77°F); below 10% and above 90% $\pm 5\%$ typical
- Resolution: 0.05% RH
- Response time to 90%: 2 minutes (to 90% in airflow of 1 m/sec)
- Accuracy Drift: <1% per year 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.