



HOBO® U12-013 Data Logger

Temperature/Relative Humidity/2 External Channel Data Logger

The HOBO U12-013 data logger has a built in temperature and relative humidity sensor along with 2 external channels for a wide range of energy and environmental sensors. This product can store up to 43,000 measurements of 12-bit resolution readings.

Supported Measurements:

4-20mA, AC Current, AC Voltage, Air Velocity, Carbon Dioxide, Compressed Air Flow, DC Current, DC Voltage, Gauge Pressure, Kilowatts (kW), Relative Humidity, Temperature and Volatile Organic Comp.

Key Advantages:

- 12-bit resolution provides high accuracy
- Large memory for long-term deployments or fast sampling
- Programmable and push button start
- Direct USB interface for fast data offload
- Compatible with Onset's HOBO U-Shuttle for convenient data transport
- Compatible with HOBOWare and HOBOWare Pro for logger setup, graphing and analysis



HOBO U12-013 Data Logger Specifications

Measurement Range

Temperature: -20° to 70°C (-4° to 158°F)

RH: 5% to 95% RH

Analog channels: 0 to 2.5 Vdc (w/CABLE-2.5-STEREO); 0 to 5 Vdc (w/CABLE-ADAP5); 0 to 10 Vdc (w/ CABLE-ADAP10); 4-20 mA (w/CABLE-4-20MA)

Accuracy

Temperature: $\pm 0.35^{\circ}\text{C}$ from 0° to 50°C ($\pm 0.63^{\circ}\text{F}$ from 32° to 122°F)

RH: $\pm 2.5\%$ from 10% to 90% RH (typical), to a maximum of $\pm 3.5\%$, see Plot B in manual

External input channel (see sensor manual): $\pm 2\text{ mV} \pm 2.5\%$ of absolute reading

Resolution

Temperature: 0.03°C at 25°C (0.05°F at 77°F), see Plot A in manual

RH: 0.05% RH

Sample rate: 1 second to 18 hours, user selectable

Drift

Temperature: $0.1^{\circ}\text{C}/\text{year}$ ($0.2^{\circ}\text{F}/\text{year}$)

RH: $<1\%$ per year typical; RH hysteresis 1%

Time accuracy: ± 1 minute per month at 25°C (77°F), see Plot C in manual

Response time in airflow of 1 m/s (2.2 mph)

Temperature: 6 minutes, typical to 90%

RH: 1 minute, typical to 90%

Operating temperature

Logging: -20° to 70°C (-4° to 158°F); 0 to 95% RH (non-condensing)

Launch/readout: 0° to 50°C (32° to 122°F), per USB specification

Battery life: 1 year typical use

Memory: 64K bytes (43,000 12-bit measurements)

Weight: 46 g (1.6 oz)

Dimensions: 58 x 74 x 22 mm (2.3 x 2.9 x 0.9 inches)

The CE Marking identifies this product as complying with all relevant directives in the European Union (EU).

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

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

- ▶ Contact Product Support www.onsetcomp.com/support/contact
- ▶ Call 1-508-759-9500
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