



HOBO U12 data loggers provide high-accuracy monitoring of temperature and humidity. The U12 loggers provide 12-bit resolution measurements for detecting greater variability in recorded data, direct USB connectivity for convenient, high-speed data offload, and a 43K measurement capacity. They also feature rugged enclosures for enhanced product durability.

Key Advantages:

- Large memory for long-term deployments or fast sampling
- Five models to choose from, with flexible measurement options
- Programmable as well as push-button start

Memory:
Sample rate:
Battery life:

43,000 measurements
1 second to 18 hours, user-selectable
1 year (typical)—user-replaceable



Temperature

Measurement range:
Accuracy:
Resolution (12-bit):
Response time:

-20° to 70°C (-4° to 158°F)
± 0.35°C from 0° to 50°C (0.63°F from 32° to 122°F)
0.03°@ 25°C (0.05°@ 77°F)
6 minutes (to 90% in airflow of 1 m/s)

***NIST-traceable temperature accuracy certificate available.
(See page 72)***

Relative Humidity (RH)

Measurement range:
Accuracy:
Resolution (12-bit):
Response time:

5% to 95% RH
±2.5% typical, 3.5% maximum, from 10 to 90% RH
0.03% RH
1 minute (to 90% in airflow of 1 m/s)

Light Intensity

Range:

Designed for general purpose indoor measurement of relative light levels
1 to 3000 footcandles (lumens/ft²) typical
0-32,300 lumens/m² [0-3,000 footcandles (lumens/ft²)]

External Input

Input range:
Accuracy:
Resolution (12-bit):
Output power:

External sensors for temperature, AC current, AC voltage, CO₂, 4-20 mA, 0-2.5 VDC
(see sensors page 57)

0 to 2.5 VDC
±2 mV, ±2.5% of absolute reading
0.6 mV
2.5 VDC at 2 mA, active only during measurements

HOBO U12 Model Comparison

		Temperature	4 External	Temp/RH	Temp/RH/Light/Ext	Temp/RH/2 Ext
						
		U12-001	U12-006	U12-011	U12-012	U12-013
Number of Channels		1	4	2	4	4
Internal Sensors	Temperature	yes	--	yes	yes	yes
	Relative Humidity	--	--	yes	yes	yes
	Light Intensity	--	--	--	yes	--
External Sensors		--	yes	--	yes	yes
Size	cm	5.8 x 7.4 x 2.2	5.8 x 7.4 x 2.2	5.8 x 7.4 x 2.2	5.8 x 7.4 x 2.2	5.8 x 7.4 x 2.2
	inches	2.3 x 2.9 x 0.9	2.3 x 2.9 x 0.9	2.3 x 2.9 x 0.9	2.3 x 2.9 x 0.9	2.3 x 2.9 x 0.9
Weight	grams	46	46	46	46	46
	ounces	1.6	1.6	1.6	1.6	1.6

Complete system requires logger and software.

Ordering Information

Data Loggers

HOBO U12 Temp	U12-001
HOBO U12 4 Ext Channels	U12-006
HOBO U12 Temp/RH	U12-011
HOBO U12 Temp/RH/Light/Ext Channel	U12-012
HOBO U12 Temp/RH/2 Ext Channels	U12-013

kW**

3 Phase, 450V, 100 AMP	T-VER-8044-100
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Gauge Pressure**†

100 psig	T-ASH-G2-100
200 psig	T-ASH-G2-200
500 psig	T-ASH-G2-500

Differential Air Pressure Transducer**†

.01-10.0 WC	T-VER-PXU-L
.01-10.0 WC	T-VER-PXU-X

Humidity**†

Duct-Mount RH/Temp	T-VAI-HMD-40Y
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DC Current**†

0-200 Amp	T-VER-H970-200
-200 to 200 Amp	T-VER-971BP-200

Air Velocity Sensor**†

0.15-10 m/s	T-DCI-F900-L-P
0.15-5 m/s	T-DCI-F900-L-O
0.15-10 m/s	T-DCI-F900-S-P
0.15-5 m/s	T-DCI-F900-S-O

Compressed Air Flow Meter**

1-80 SCFM	T-CDI-5200-10S
3-350 SCFM	T-CDI-5400-20S

Volatile Organic Compound (VOC)**†

0-10, 0-100, 0-1000 ppm	T-ION-TVOC
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Temperature Sensors

Air/Water/Soil Probe 0.3m (1ft)	TMC1-HD
Air/Water/Soil Probe 1.8m (6ft)	TMC6-HD
Air/Water/Soil Probe 6.1m (20ft)	TMC20-HD
Air/Water/Soil Probe 15.2m (50ft)	TMC50-HD
Stainless Steel Temp Probe 1.8m (6ft)	TMC6-HC
Pipe Temp 1.8m (6ft)	TMC6-HE

Split-core AC Current Sensors

0-20 Amps AC	CTV-A
0-50 Amps AC	CTV-B
0-100 Amps AC	CTV-C
0-200 Amps AC	CTV-D
0-600 Amps AC	CTV-E

CO₂**

Telaire CO ₂ /Temp Monitor	TEL-7001
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AC Voltage Transmitters**

0 - 150 Volts AC	T-CON-ACT-150
0 - 300 Volts AC	T-CON-ACT-300

DC Voltage

0 - 2.5 Volts DC	CABLE-2.5-STEREO
0 - 5 Volts DC	CABLE-ADAP5
0 - 10 Volts DC	CABLE-ADAP10

Milliamps

4 - 20mA	CABLE-4-20MA
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Software

HOBOware Pro Software (Windows®/Mac®)	BHW-PRO-CD
HOBOware Lite Software (Windows®/Mac®)	BHW-LITE-CD
Real-Time Alarm Software Plug-in*	BHW-T-ALARM

Optional Communications

HOBO U-Shuttle*	U-DT-1
USB to Ethernet Server	SERVER-US-4

* Requires HOBOware Pro software, see page 52 for details.

HOBOware includes USB interface cable.

** Requires input cables. See page 57 for compatibility.

† Requires sensor power adapter (AC-SENS-1) See page 57 for compatibility.

HOBOware Software is available for download via the web. Visit onsetcomp.com for details.