

# HOBO® UX120 Plug Load Logger

## Measures power and energy consumption of 120V office equipment plug loads

Onset's HOBO Plug Load Logger is a high-accuracy, easy-todeploy data logger that measures and records the power and energy consumption of 120V plug loads from office equipment, vending machines, and other devices.

The logger provides 0.5% measurement accuracy with a measurement resolution of 1 watt, making it an ideal choice for building audits where detailed energy use data is required. The rugged housing is designed to withstand the rigors of real-world handling, providing reliable performance despite bumps, drops, and use under desks.

Supported Measurements: AC Current, AC Voltage, Amps, Kilowatt Hours, Power Factor, Volt-Amps, Volts, Watt Hours, Watts



## **Key Advantages:**

- 0.5% measurement accuracy enables more reliable plug load energy use data
- · "Meter Mode" provides instant viewing of real-time plug load variables
- · Large memory enables faster logging intervals for more comprehensive plug load profiles
- · Battery back-up ensures logged data remains intact in the event of a power outage or load failure
- · Full-featured LCD display provides visual diagnostics for easy deployment
- · Factory calibrated (see user's manual for details)

#### **Minimum System Requirements:**



#### For complete information and accessories, please visit: www.onsetcomp.com

Part number	UX120-018	
RMS Voltage Accuracy, RMS Current Accuracy, Active Power Accuracy, Power Factor Accuracy	0.5% up to 14 Amp continuous; up to 1.0% over 14 Amp when equipment being monitored is at 100% duty cycle	
Power Factor Accuracy	±0.02	
Drift	Up to 0.5% typical within 1 year	
Memory	4 MB (1.4 million measurements, maximum)	
Logging rate	1 second to 18 hours, 12 minutes, 15 seconds	
Sampling rate	60 Hz or 16.67 mS single-cycle	
Battery life	2 years with line power; 6 months battery only (no line power) with logging rate of 1 minute or greater operating at 25°C (77°F)	
Power source	Line-powered with 0.92 m (3 ft) AC power cord or two AAA 1.5 V alkaline batteries, user replaceable	
Resolution	1 Watt Load at 120 V AC 15 Amp	
Operating temperature range	Logging: 5° to 40°C (41° to 104°F); 0 to 95% RH (non-condensing)	
Dimensions	13.97 x 7.62 x 4.75 cm (5.5 x 3 x 1.87 in.)	
CE Compliant	Yes	

# HOBO UX120 4-Channel Analog Logger

## Flexible, Accurate, 4-channel Analog Logger

The HOBO UX120-006M Analog Logger is a high-performance, LCD display data logger for building performance monitoring applications.

As Onset's highest-accuracy data logger, it provides twice the accuracy of previous models, a deployment-friendly LCD, and flexible support up to four external sensors for measuring temperature, current, CO2, voltage, and more.

**Supported Measurements:** Temperature, 4-20mA, AC Current, AC Voltage, Air Velocity, Carbon Dioxide, Compressed Air Flow, DC Current, DC Voltage, Gauge Pressure, Kilowatts, Volatile Organic Compound



## Key Advantages:

- · Twice the accuracy over previous models
- 16-bit resolution
- · Flexible support for a wide range of external sensors
- · LCD confirms logger operation and displays near real-time measurement data
- Provides minimum, maximum, average, and standard deviation logging options
- On-screen alarms notify you when a sensor reading exceeds set thresholds
- Stores 1.9 million measurements for longer deployments between offloads

## **Minimum System Requirements:**



#### For complete information and accessories, please visit: www.onsetcomp.com

Part number	UX120-006M
Memory	1.9 Million
Logging Rate	1 second to 18 hours, user selectable
Logging Modes	Normal, Burst, Statistics
Memory Modes	Wrap when full or stop when full
Time Accuracy	±1 minute per month at 25°C (77°F)
Battery Life	1 year typical with logging rate of 1 minute and sampling interval of 15 seconds or greater, user replaceable, 2 AAA
Dimensions	10.8 x 5.41 x 2.54 cm (4.25 x 2.13 x 1 in.)
Operating Range	Logging: -20° to 70°C (-4° to 158°F); 0 to 95% RH (non-condensing)
Accuracy	±0.1 mV ±0.1% of reading
CE Compliant	Yes

# HOBO UX120 4-Channel Thermocouple Logger

## Log type J, K, T, E, R, S, B, or N thermocouples

The HOBO UX120 Thermocouple Logger is a four-channel LCD data logger for measuring and recording temperature in a range of monitoring applications. The logger makes it easy and convenient to record temperatures over a broad range (-260 to 1820° C) and can accept up to four J, K, T, E, R, S, B, or N type probes.

In addition to accepting four thermocouple probes, the logger features an internal temperature sensor for logging ambient temperatures, further extending the application possibilities.

## Supported Measurements: Temperature

## Key Advantages:

- Easy-to-view LCD display confirms logger operation and battery status
- Near real-time readout of current temperatures as well as minimum, maximum, average, and standard deviation statistics
- On-screen alarms notify you if temperatures exceed high or low thresholds
- Large memory capacity capable of storing 1.6 million measurements
- Start, stop, and restart push buttons
- User-upgradeable firmware



## Minimum System Requirements:



### For complete information and accessories, please visit: www.onsetcomp.com

Part number	UX120-014M				
Internal Temperature					
Range	-20° to 70°C (-4° to 158°F)				
Accuracy	±0.21°C from 0° to 50°C (±0.38°F from	±0.21°C from 0° to 50°C (±0.38°F from 32° to 122°F)			
Resolution	0.024°C at 25°C (0.04°F at 77°F)	0.024°C at 25°C (0.04°F at 77°F)			
Drift	<0.1°C (0.18°F) per year				
Logger					
Logging Rate	1 second to 18 hours				
Logging Modes	Normal, Burst, Statistics				
Memory Modes	Wrap when full or stop when full				
Time Accuracy	±1 minute per month at 25°C (77°F)	±1 minute per month at 25°C (77°F)			
Battery Life	1 year typical with logging rate of 1 minute and sampling interval of 15 seconds or greater, user replaceable, 2 AAA				
Dimensions	10.8 x 5.41 x 2.54 cm (4.25 x 2.13 x 1	10.8 x 5.41 x 2.54 cm (4.25 x 2.13 x 1 in.)			
Operating Range	Logging: -20° to 70°C (-4° to 158°F); (	) to 95% RH (non-condensing)			
CE Compliant	Yes				
Thermocouple	Range	Accuracy	Resolution		
(probes sold separately)					
Type J	-210° to 760°C (-346° to 1,400°F)	±0.6°C (±1.08°F) ± thermocouple probe accuracy	0.03°C (0.06°F)		
Туре К	-260° to 1,370°C (-436° to 2,498°F)	±0.7°C (±1.26°F) ± thermocouple probe accuracy	0.04°C (0.07°F)		
Туре Т	-260° to 400°C (-436° to 752°F)	$\pm 0.6^{\circ}C$ ( $\pm 1.08^{\circ}F$ ) $\pm$ thermocouple probe accuracy	0.02°C (0.03°F)		
Type E	-260° to 950°C (-436° to 1,742°F)	$\pm 0.6^{\circ}C$ ( $\pm 1.08^{\circ}F)$ $\pm$ thermocouple probe accuracy	0.03°C at (0.05°F)		
Type R	-50° to 1,550°C (-58° to 2,822°F)	±2.2°C (±3.96°F) ± thermocouple probe accuracy	0.08°C (0.15°F)		
Type S	-50° to 1,720°C (-58° to 3,128°F)	$\pm 2.2^{\circ}C$ ( $\pm 3.96^{\circ}F$ ) $\pm$ thermocouple probe accuracy	0.08°C (0.15°F)		
Type B	+60° to 1,820°C (1,022° to 3,308°F)	±2.5°C (±4.5°F) ± thermocouple probe accuracy	0.1°C (0.18F)		
Type N	-260° to 1,300°C (-436° to 2,372°F)	$\pm 1.0^{\circ}C$ ( $\pm 1.8^{\circ}F$ ) $\pm$ thermocouple probe accuracy	0.06°C (0.11°F)		

# HOBO UX120 4-Channel Pulse Logger

## Log pulse signals, events, state changes, and runtimes

The HOBO UX120 4-Channel Pulse data logger is a highly versatile, 4-channel energy data logger that combines the functionality of four separate energy loggers into one compact unit. It enables energy management professionals – from energy auditors to building commissioners – to easily track building energy consumption, equipment runtimes, and water and gas flow rates.

**Supported Measurements:** Pulse Signals, Event, Runtime, State, AC Current, AC Voltage, Amp Hour, Kilowatt Hours, Kilowatts, Motor On/Off, Power Factor, Volt-Amps, Watt Hours, Watts, Volt-Amp Reactive, Volt-Amp Reactive Hour (sensors sold separately)



## Key Advantages:

- · Simultaneously measures and records pulse signals, events, state changes, and runtimes
- Stores over 4 million measurements, enabling longer deployments with fewer site visits
- Streamlines deployment via range of start/stop options, logger status LEDs, and high-speed USB 2.0 data offload
- Works with Onset's E50B2 Power & Energy Meter to measure Power Factor, Reactive Power, Watt Hours, and more

## **Minimum System Requirements:**

Software	USB cable*	Sensor

## For complete information and accessories, please visit: www.onsetcomp.com

Part number	UX120-017	UX120-017M	
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Memory	520,000 measurements	4,000,000 measurements	
Sampling rate	1 second to 18 hours		
Battery life	1 year typical, user replaceable, 2 AA		
External contact Input	Electronic solid state switch closure or logic driven digital signals to 24V		
Max pulse frequency	120 Hz		
Max state, event, runtime frequency	1 Hz		
Resolution	Pulse: 1 pulse, Runtime: 1 second, State and Event: 1 state or event		
Bits	4 - 32 bits depending on pulse rate and logging interval		
Lockout time	0 to 1 second in 100 ms steps		
Operating temperature range	Logging: -40° to 70°C (-40° to 158°F); 0 to 95% RH (non-condensing)		
Dimensions	11.4 x 6.3 x 3.3 cm (4.5 x 2.5 x 1.3 inches)		
CE compliant	Yes		

\*USB cable included with software part # BHW-PRO-CD

