

UX120-017M

HOBO 4-Channel Pulse Data Logger

Discontinued

A highly versatile, 4-channel energy data logger that combines the functionality of four separate data loggers into one compact unit; expanded memory model.

Important Information

Requires HOBOWare software and a USB cable. (Note: A USB cable is included w/HOBOWare Pro CD or USB software purchase). See compatible items below.



Compatible with
HOBOWare[®] Software

[View upgrade options](#)



Supported Measurements

AC Voltage, Amp Hour (Ah), Amps (A), Event, Kilowatt Hours (kWh), Kilowatts (kW), Motor On/Off, Power Factor (PF), Pulse Input, Runtime, State Open/Closed, Volt-Amp Reactive, Volt-Amp Reactive hour, Volt-Amps (VA), Volts (V), Water Flow, Watt Hours (Wh), Watts (W)

Features

- Simultaneously measures and records pulse signals, events, state changes, and runtimes
- Stores up to over 4 million measurements, enabling longer deployments with fewer site visits
- Maximum pulse rate – 120 Hz
- Pulse input range – 0 to 24VDC
- Streamlines deployment via a range of start/stop options, logger status LEDs, and high-speed USB 2.0 data offload
- Works with Onset's Energy & Power Meter to measure Power Factor (PF), Reactive Power (VAR), Watt Hours (Wh) and more. Learn how. The T-VER-E50B2 Energy and Power Meter outputs (3) sets of pulses that are logged by the UX120-017. These pulses represent Watt-hours, Amp-hours, and VAR-hours. HOBOWare software uses these pulse values to calculate AC Current, AC Voltage, kW, Power Factor, VARs, and VA. The formulas used in these calculations can be found here: 14993-A-Derived-Channels.zip
- Compatible with HOBOWare and HOBOWare Pro software for logger setup and graphing & analysis

What's in the box

- HOBO UX120-017M 4-Channel Pulse Input Data Logger
- 4 mounting screws
- 2 magnets
- Hook & loop tape
- 4 terminal block connectors

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 4-Channel Pulse Data Logger (UX120-017M) Specifications

Inputs

| | |
|---|---|
| External Contact Input: | Electronic solid state switch closure or logic driven digital signals to 24 V |
| Maximum Pulse Frequency: | 120 Hz |
| Maximum State, Event, Runtime Frequency: | 1 Hz |
| Bits: | 4–32 bits depending on pulse rate and logging interval |
| Maximum Pulses Per Interval: | 7,863,960 (using maximum logging rate) |
| Driven Logic Signal: | Input Low: ? 0.4 V; Input High: 3 to 24 V |
| Absolute Maximum Rating: | Maximum Voltage: 25 V DC Minimum Voltage: -0.3 V DC |
| Solid State Switch Closure: | Input Low: < 10 K?; Input High: > 500 K? |
| Internal Weak Pull-Up: | 100 K? |
| Input Impedance: | Solid state switch closure: 100 K? pull up; Driven signal: 4.5 K? |
| Minimum Pulse Width: | Contact closure duration: 500 uS; Driven logic signal: 100 uS |
| Lockout Time: | 0 to 1 second in 100 ms steps |
| Edge Detection: | Falling edge, Schmitt Trigger buffer |
| Preferred Switch State: | Normally open or Logic "1" state |

Logging

| | |
|-----------------------|---|
| Resolution: | Pulse: 1 pulse, Runtime: 1 second, State and Event: 1 State or Event |
| Logging Rate: | 1 second to 18 hours, 12 minutes, 15 seconds |
| Time Accuracy: | ± 1 minute per month at 25°C (77°F) (see Plot A in manual) |
| Battery Type: | Two AA alkaline or lithium batteries |
| Battery Life: | 1 year, typical with logging intervals greater than 1 minute and normally open contacts |

Memory

| | |
|-----------------------|---|
| Memory: | UX120-017: 520,192 measurements (assumes 8-bit) UX120-017M: 4,124,672 measurements (assumes 8-bit) |
| Download Type: | USB 2.0 interface |
| Download Time: | 30 seconds for UX120-017, 1.5 minutes for UX120-017M |

Physical

| | |
|------------------------------|--|
| Operating Range: | Logging: -40° to 70°C (-40° to 158°F); 0 to 95% RH (non-condensing) Launch/Readout: 0° to 50°C (32° to 122°F) per USB specification |
| Weight: | 149 g (5.26 oz) |
| Size: | 11.4 x 6.3 x 3.3 cm (4.5 x 2.5 x 1.3 inches) |
| Environmental Rating: | IP50 |



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