

UX90-004

## HOBO Motor On/Off Data Logger



Records motor on/off conditions within an AC magnetic field with its internal sensor, or mechanical dry contact closures from external sensing devices.

### Important Information

Requires HOBOWare software and a USB cable. (Note: A USB-A to USB-B mini cable is included w/HOBOWare Pro USB Drive software purchase). See compatible items below.



Compatible with  
**HOBOWare® Software**

## Supported Measurements

Motor On/Off, Runtime, State Open/Closed

## Features

- Dual internal motor sensors gives better sensitivity for well-shielded motors
- External input for measuring mechanical contact closures when signal strength is low
- Auto-calibration of ON and OFF thresholds ensures reliable readings
- Compatible with HOBOWare and HOBOWare Pro software for logger setup and graphing & analysis

## What's in the box

- HOBO UX90-004 Motor On/Off Data Logger
- Command™ strip
- Double-sided tape
- Hook & loop strap

## Contact Us

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

- Email [sales@onsetcomp.com](mailto:sales@onsetcomp.com)
- Call 1-508-759-9500
- In U.S. toll free 1-800-564-4377
- Fax 1-508-759-9100

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

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

# HOBO Motor On/Off Data Logger (UX90-004) Specifications

## Internal Motor Sensor

**AC Magnetic Field Threshold** >40 mGauss at 60 Hz

## External Input

**External Contact Input** Electronic solid state switch closure or logic driven voltage output

**Range** 0 to 3 V DC (USB powered), 0 to 2.5 V DC (battery powered)

**Maximum State and Runtime Frequency** 1 Hz

**Solid State Switch Closure** Input Low: < 10 K $\Omega$ ?; Input High: > 500 K $\Omega$ ?

**Internal Weak Pull-Up** 100 K $\Omega$ ?

**Input Impedance** Solid state switch closure: 100 K $\Omega$ ? pull up

## Logger

**Resolution** Pulse: 1 pulse, Runtime: 1 second, State and Event: 1 State or Event

**Memory Modes** Wrap when full or stop when full

**Start Modes** Immediate, push button, date & time, or next interval

**Stop Modes** When memory full, push button, or date & time

**Time Accuracy**  $\pm$ 1 minute per month at 25°C (77°F) (see Plot A)

**Power Source** One 3V CR2032 lithium battery and USB cable

**Battery Life** 1 year, typical with logging intervals greater than 1 minute and normally open contacts

**Memory** UX90-004: 128 KB (84,650 measurements, maximum)  
UX90-004M: 512 KB (346,795 measurements, maximum)

**Download Type** USB 2.0 interface

**Full Memory Download Time** 10 seconds for 128 KB; 30 seconds for 512 KB

**Logger Operating Range** 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

**LCD** LCD is visible from: 0° to 50°C (32° to 122°F); the LCD may react slowly or go blank in temperatures outside this range

**Size** 3.66 x 8.48 x 1.52 cm (1.44 x 3.34 x 0.6 in.)

**Weight** 30 g (1.06 oz)

**Environmental Rating** IP50

