



HOBO® UX90-004 Data Logger

Motor On/Off Data Logger

The HOBO Motor On/Off data logger records motor on and off conditions within an AC magnetic field with its internal sensor, or mechanical dry contact closures from external sensing devices. This data logger is ideal for tracking the usage & runtimes of motors, pumps, compressors, and other equipment. The HOBO UX90-004 Motor On/Off Data Logger is available in a standard 128 KB memory model (UX90-004) capable of 84,650 measurements and an expanded 512KB memory version (UX90-004M) capable of over 346,795 measurements.

Supported Measurements:

Motor On/Off, Runtime and State Open/Closed

Key Advantages:

- 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, graphing and analysis



HOBO UX90-004 Data Logger 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 ; Input High: > 500 K

Internal weak pull-up: 100 K

Input impedance: Solid state switch closure: 100 K pull up

Logger

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

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

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

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

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

- ▶ Contact Product Support www.onsetcomp.com/support/contact
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