

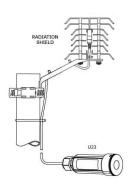
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HOBO U23-004 Pro V2 Temperature Logger with 1 x External Waterproof Sensor

Product Images





Short Description

The HOBO Pro v2 Temperature/External Temperature data logger is a weatherproof data logger with an external soil/water temperature sensor on a 6-foot cable useful for situations where just one temperature probe is required. An internal temperature sensor is also included.

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Highlighted Features

- Weatherproof housing for use in outdoor or condensing environments
- High accuracy
- Small-diameter external sensor versions for measurements in tight spaces
- Optic USB interface for fast and reliable download
- Compatible with HOBOware and HOBOware Pro software for logger setup, graphing and analysis



IMPORTANT: HOBO U23 data loggers require either the BASE-U-4 or the U-DTW-1 Data Shuttle to offload data and launch loggers.

HOBO loggers require HOBOware software (free download).

Additional Information

| Country of Manufacture | United States |
|------------------------|--|
| | Temperature Sensor Operation range internal sensors: -40° to 70°C (-40° to 158°F) U23-002 external temperature sensor: -40° to 70°C (-40° to 158°F) U23-003 and U23-004 external sensors: -40° to 100°C (-40° to 212°F), with tip and cable immersion in fresh water up to 50°C (122°F) for one year |
| | Accuracy: ±0.21°C from 0° to 50°C (±0.38°F from 32° to 122°F); see Plot A Resolution: 0.02°C at 25°C (0.04°F at 77°F); see Plot A |
| | ■ Response Time (typical to 90%) U23-001 internal sensor: 40 minutes in air moving 1 m/sec U23-002 external temperature sensor: 5 minutes in air moving 1 m/sec U23-003 and U23-004 external sensors: 3 minutes in air moving 1 m/sec; 30 seconds in stirred water Stability (drift): < 0.1°C (0.18°F) per year Relative Humidity Sensor (U23-001, U23-002 only) Operation range: 0-100% RH, -40° to 70°C (-40° to 158°F) Exposure to conditions below -20°C (-4°F) or above 95% RH may temporarily increase the maximum RH sensor error by an additional 1% Accuracy: ±2.5% from 10% to 90% RH (typical), to a maximum of ±3.5% including hysteresis. See Plot B for full range. Resolution: 0.03% |
| | Response Time (typical to 90%) U23-001: 40 minute in air moving 1 m/sec with protective cap U23-002: 5 minutes in air moving 1 m/sec with protective cap |
| Explanation | Stability (drift): < 1% per year typical Logger Operation range: -40° to 70°C (-40° to 158°F) Real-time clock: ± 1 minute per month 0° to 50°C (32° to 122°F) Battery: 1/2 AA, 3.6 Volt lithium, user-replaceable (part # HP-B) Battery life (typical use): 3 years with 1 minute or greater logging interval Memory (non-volatile): 64K bytes memory (approx. 21,000 temperature and RH measurements) |
| | Materials All models: ASA styrene polymer housing and mounting clamp; polypropylene protective cap; Buna-N o-ring(s) U23-001, U23-002 only: ASA styrene polymer RH sensor cap; modified hydrophobic polyethersulfone membrane Cables U23-001: No cables U23-002: One 184 cm (6 ft.) PVC cable; sensor diameter 1 cm (0.38 in.) U23-003: Two 184 cm (6 ft.) PVC cables; sensor diameter 0.5 cm (0.20 in.) U23-004: One 184 cm (6 ft.) PVC cable; sensor diameter 0.5 cm (0.20 in.) |
| | Environmental rating: Electronics housing is NEMA 6P equivalent (tolerant of brief submergence); Units with RH sensors are NEMA 4 equivalent (splash-resistant) Launch modes: Immediate start; delayed start Logging interval: Fixed-rate or multiple logging intervals, with up to 8 user-defined logging intervals and durations; logging intervals from 1 second to 18 hours (refer to HOBOware software manual) Offload modes: Offload while logging; stop and offload Battery indication: Battery voltage can be viewed in status screen and optionally logged in datafile. Low battery indication in datafile. Weight U23-001: 57 g (1.5 oz) U23-002: 118 g (3.1 oz) U23-004: 102 g (2.7 oz) |
| | Dimensions: Housing measures 10.2 × 3.8 cm (4.0 × 1.5 in.) NIST certificate: Temperature certificate available for additional charge |
| | The CE Marking identifies this product as complying with the relevant directives in the European Union (EU). |
| Brand | Onset HOBO |
| Channel(s) | 2 |
| Onset Product Series | U23 |
| Typical applications | Environmental (Indoor), Environmental (Outdoor), Field Research, Food Safety, Product Safety, Weather Monitoring |
| Measurements | Soil Temperature, Temperature, Water Temperature |
| | |

Additional Options

| Connectivity Options | HOBO Universal Optic USB Base Station Base-U-4 (includes Couplers) |
|--|---|
| | Waterproof Optic Data Shuttle U-DTW-1 (requires HOBOWare Pro) |
| Temperature Calibration Certificate | 2 Point Temperature Calibration (0°C / 60°C) |
| | 2 Point Temperature Calibration (please specify temperature points) |
| | 1 Point Temperature Calibration (0°C) |
| Radiation Shield Option | RS3 Radiation Shield |
| HOBOware Pro Software Options | HOBOware Pro on USB Drive (USB cable included) |
| | HOBOware Pro on CD (USB Cable Included) |
| | HOBOware Pro - Download Only (USB cable NOT included) |
| USB Cable (included with HOBOware Pro on USB Drive & CD) | HOBO U-Series to PC USB Cable |