

HOBO WEATHER STATIONS, for stand-alone outdoor data logging applications



HOBO MICRO STATION / HOBO WEATHER STATION

Easy to configure with broad range of plug-and-play smart sensors for monitoring all kinds of environmental conditions, HOBO Weather/Micro stations offer reliable and accurate outdoor monitoring performance.

Micro Station: up to 4 sensor inputs

Weather Station: up to 15 sensor inputs

Available sensors: temperature, relative humidity, soil moisture, wind speed/direction, rainfall, leaf wetness, solar radiation, and barometric pressure. Input adapters for 4-20mA, DC voltage, and pulses increase the range of possible measurements.

Records up to 500.000 values.

4 AA batteries power the entire system for about one year.

Nonvolatile flash data storage ensures that no data is lost in case of a power interruption.

Available accessories include 2 or 3 meter tripod kits for stand alone mounting, and all necessary sensor brackets. Logging set-up is easily configured with HOBOWare software, available for Windows or Mac. Can also mount on flat surfaces.



Logger Characteristics

Operating Range: -20° to 50°C with alkaline batteries

Memory: 512K nonvolatile flash data storage. Memory Modes: Stop when full, wrap around when full

Logging Interval: 1 second to 18 hours, user-specified interval

Battery Life: 1 year typical use. Battery Type: Four standard AA alkaline batteries included: optional AA lithium batteries available for operating conditions of -40° to 70°C

Logger Start Modes: Immediate, push-button, or delayed start options

Communication: 3.5 mm serial port (requires adapter for USB connectivity)

Weather Station: Dimensions: 23 cm H x 10 cm D x 18 cm ; Weight: 0.9 kg

Microstation: Weight: 0.36 kg; Dimensions: 8.9 cm H x 11.4 cm D x 5.4 cm W



Software

HOBOWare™ Pro (Win or Mac) software is required to operate the Weather station or Micro Station. Each starter kit includes software, USB interface cable, and software manual. It provides simple launch and readout as well as flexible plotting for HOBO Stations and U series loggers. Data can be exported easily for more extensive analysis using Microsoft® Excel. System requirements Mac OS X 10.3.9 or superior; Windows 98/2000/ME/XP/Vista. The system requires a serial port or USB-serial adapter for USB connectivity.

Azienda con Sistema di Gestione
per la Qualità certificato secondo

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**SENSOR CHARACTERISTICS****Temperature**

Range	-40°C...+75°C
Accuracy	±0.7°C @ +25°C
Resolution	0.4°C @ 25°C

Relative Humidity

Range	0%...100% RH between 0°C...50°C
Accuracy	±3% range 0°... 50°C, ±4% with condensation 0°... 30°C
Resolution	0.5% @ 25°C

Rainfall

Mechanism	Tipping bucket
Resolution	0.2 mm
Range	10cm/h, max 4000 tips per interval
Accuracy	±1.0% up to 20 mm/h
Dimensions	22.8 (h)x15.4 (ø) cm. bucket 154 mm
Weight	1 kg

Wind speed and direction

Range	0...45 m/s – 0...358°
Accuracy	±1.1 m/s or ±4% value - ±5%
Resolution	0.38 m/s – 1.4°
Starting threshold	<0.5 m/s
Dimensions	190x51 cm
Weight	300 g
Measurement type	Average wind speed or highest gust

Soil Moisture

Range	0...405 m ³ / m ³ (0...40,5%)
Accuracy	±0,031 m ³ / m ³
Resolution	0.0004 m ³ / m ³
Dimensions	25,4x3,2x0,15 cm
Weight	112 g
Cable length	3 m

PAR radiation

Measurement Range	0...2500 µmol/m ² /sec
Spectral Range	400...700 nm
Accuracy	±5 µmol/m ² /sec
Resolution	2,5 µmol/m ² /sec
Dimensions	4,1 cm height x3,2 diameter
Weight	120 g
Cable length	3 m

Solar Radiation (Silicon Pyranometer)

Measurement Range	0...1280 W/m ²
Spectral Range	300...1100 nm
Accuracy	±10 W/m ²
Resolution	1,25 W/m ²
Dimensions	4,1 cm height x3,2 diameter
Weight	120 g
Cable length	3 m

Barometric Pressure

Range	660...1070 mb
Accuracy	±1,5 mb
Resolution	0,1 mb
Dimensions	4,5x4,8x1,6 cm
Weight	30 g
Cable length	10cm