

MX2301A

HOBO Temperature/RH Data Logger Bluetooth

A weatherproof data logger with built-in temperature and relative humidity sensors, leveraging Bluetooth for easy setup and data download.

Important Information

Requires a compatible mobile device or Windows computer and the HOBObconnect app. System requirements for the app can be found at the bottom of the HOBObconnect software page.



Compatible with
HOBObconnect® Monitoring App



Supported Measurements

Dew Point, Relative Humidity, Temperature

Features

- Convenient wireless setup and download via Bluetooth (100-foot range)
- Retrieve data in hard-to-reach locations
- Visual alarms alert you to out-of-range conditions
- Compact, weatherproof housing with built-in mounting
- View current data in real-time with Onset's free HOBObconnect app
- Share downloaded data easily from your mobile device
- Accuracy: +/- 0.2C° and +/- 2.5% RH



HOBO Temperature/RH Data Logger Specifications

Temperature Sensor

Range	-40 to 70°C (-40 to 158°F)
Accuracy	±0.25°C from -40 to 0°C (±0.45 from -40 to 32°F) ±0.2°C from 0 to 70°C (±0.36 from 32 to 158°F)
Resolution	0.02°C (0.036°F)
Drift	<0.01°C (0.018°F) per year

Relative Humidity Sensor*

Range	0 to 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% (typical) to a maximum of ±3.5% including hysteresis at 25°C (77°F); below 10% RH and above 90% RH ±5% typical
Resolution	0.01%
Drift	<1% per year typical

Response Time (typical, to 90% of change)

	Without Solar Radiation Shield	With RS1/M-RSA Solar Radiation Shield	With RS3-B Solar Radiation Shield
Temperature	17 minutes in air moving 1 m/sec	24 minutes in air moving 1 m/sec	NA
RH	30 seconds in air moving 1 m/sec	40 seconds in air moving 1 m/sec	NA

Logger

Operating Range	-40° to 70°C (-40° to 158°F)
Radio Power	1 mW (0 dBm)
Transmission Range	Approximately 30.5 m (100 ft) line-of-sight
Wireless Data Standard	Bluetooth Low Energy (Bluetooth Smart)



HOBO Temperature/RH Data Logger Specifications

Logger

Logging Rate	1 second to 18 hours
Logging Modes	Fixed interval (normal, statistics) or burst
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, date & time, or after a set logging period
Time Accuracy	±1 minute per month 0° to 50°C (32° to 122°F)
Battery Type	2/3 AA 3.6 Volt lithium, user replaceable
Battery Life	2 years, typical with logging interval of 1 minute and Bluetooth Always On enabled; 5 years, typical with logging interval of 1 minute and Bluetooth Always On disabled. Faster logging intervals and statistics sampling intervals, burst logging, remaining connected with the app, excessive downloads, and paging may impact battery life.
Memory	128 KB (63,488 measurements, maximum)
Full Memory Download Time	Approximately 60 seconds; may take longer the further the device is from the logger
Dimensions	Logger housing: 10.8 x 5.08 x 2.24 cm (4.25 x 2.0 x 0.88 in.) Solar radiation shield bracket: 10.8 x 8.3 cm (4.25 X 3.25 in.)
Weight	Logger: 75.5 g (2.66 oz) Solar radiation shield bracket: 20.4 g (0.72 oz)
Materials	Acetal, silicone gasket, stainless steel screws
Environmental Rating	NEMA 6 and IP67

*Per RH sensor manufacturer data sheet



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