

HOBO® Data Node, Temp/RH

(Part No: ZW-003)



Inside this package:

- ZW-003 HOBO data node
- AC power adapter
- 3 AAA batteries
- Accessory kit

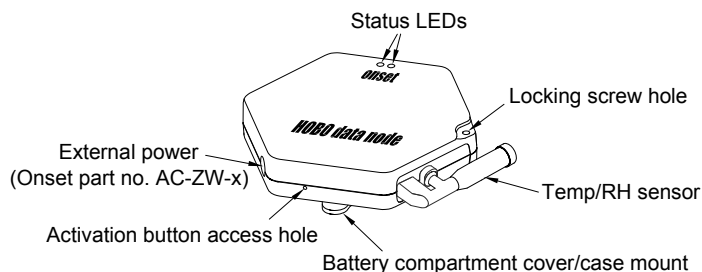
Introduction

Thank you for purchasing an Onset HOBO data node. With proper care, it will give you years of accurate and reliable measurements.

The ZW-003 HOBO data node is configured with an integrated temperature/RH sensor.

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Manual Part No: MAN-ZW-003
Doc No: 13976-B

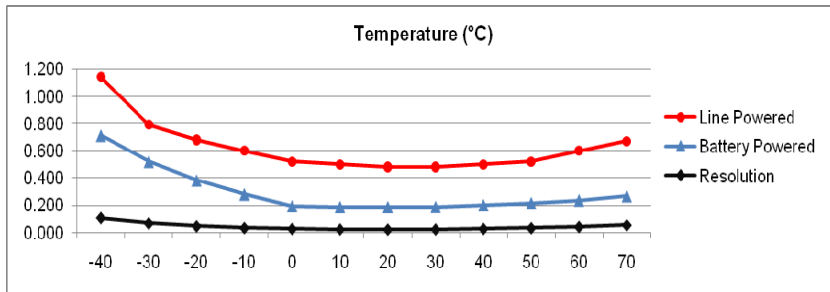
Note: Refer to the HOBO Wireless Data Node Setup Guide and HOBOWare® User Guide for information on configuring and using the HOBO data node.



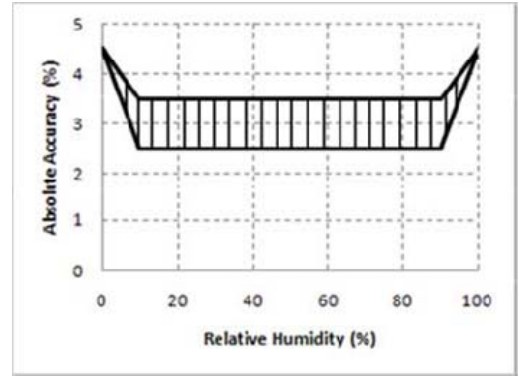
Specifications

Radio power	1.6 mW (2 dBm)
Transmission range	Approx. 100 m (328 ft), depending on obstructions or interference
Wireless data standard	IEEE 802.15.4, 2.4 GHz band
Measurement range	Temperature: -20 to 50°C (-4 to 122°F) when battery powered, -20 to 70°C (-4 to 158°F) when line powered RH: 5 to 95% non-condensing
Accuracy	Temperature: ±0.21°C over 0 to 50°C (±0.38°F over 32 to 122°F) when battery powered, ±0.54°C typical over 0 to 50°C (±0.97°F over 32° to 122°F) when line powered*; see Plot A on reverse side RH: ±2.5% from 10 to 90% typical, max. ±3.5%; see Plot B on reverse side
Resolution	Temperature: 0.02°C @ 25°C (0.04° F @ 77°F) RH: 0.03%
Response time	Temperature: 5 minutes in air moving 1 m/sec (3.3 ft/sec) RH: 10 minutes in air moving 1 m/sec (3.3 ft/sec) with protective cap
Temperature stability (drift)	<0.1°C (0.18°F) per year
RH stability (drift)	<1% per year typical; hysteresis 1%
Operating range	Temperature: -20 to 50°C (-4 to 122°F) when battery powered, -20 to 70°C (-4 to 158°F) when line powered RH: 5% to 95% non-condensing
Time accuracy	±1 minute per month at 25°C (77°F)
Memory capacity	128K (approx. 4,000 measurements)
Power options	AC power adapter: Onset part no. AC-ZW-1; Batteries: (3 alkaline AAA included)
Battery life	1 year @ 15 minute measurement interval, 60 minute transmit interval Note: For a ZW-003 that has been designated as a router in a network, battery life is approximately 24 hours
Case material	ABS
Dimensions	96.5 x 108 x 28 mm (3.8 x 4.25 x 1.1 in.)
Weight (w/batteries)	138 g (4.87 oz)
CE	The CE Marking identifies this product as complying with all relevant directives in the European Union (EU).
FC	See reverse side

* A line-powered ZW-003 data node has a broader accuracy specification because the radio is always on, thereby heating the temperature sensor. The impact on accuracy varies depending on the environmental conditions where the device is located. A line-powered ZW-003 data node cannot be NIST-calibrated because the environment is not known prior to deployment.



Plot A



Plot B

FCC Compliance

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

Changes or modifications not expressly approved by Onset Computer Corporation could void the user's authority to operate the equipment.

To comply with FCC and Industry Canada RF radiation exposure limits for general population, the HOBO data nodes, receivers, and routers must be installed to provide a separation distance of at least 20cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

Canada

This device has been designed to operate with the antenna listed below, and having a maximum gain of 1 dB. Antennas not included in this list or having a gain greater than 1 dB are strictly prohibited for use with this device. The required antenna impedance is 50 ohms.

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that permitted for successful communication.

Approved antenna: Johanson Technologies P/N 2450AT45A100 1.0 dBi chip antenna

FCC Declaration of Conformity

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.