HOBO® RX3000 Data Logger
RX3000 Remote Monitoring Station Data Logger

The HOBO RX3000, Onset’s most flexible remote data logging station, provides instant access to site-specific environmental data anywhere, anytime via the internet. The station combines the versatility and sensor quality of more expensive systems, an onboard LCD display, and the convenience of plug-and-play operation. The RX3000 is a configurable system (see "Configure System" tab below).

The RX3000 station is the basic component of the cost-effective and scalable HOBOnet Field Monitoring System for crop management, environmental research, and greenhouse operations.

Key Advantages:

- Flexible support for a broad range of sensors
- LCD display for easy field deployment
- Cloud-based data access through HOBOlink
  - Get 24/7 web access to your data via web browser
  - Verify RX3000 system status remotely
  - Set up and manage alarm notifications over the web
  - Schedule automated delivery of data
- Plug-and-play operation
- Alarm notifications via text, email
- Rugged double-weatherproof enclosure
- Cellular, Wi-Fi, and Ethernet options are available
- Configurable from your mobile device
- Optional Analog Input, Relay, and Water Level Sensor Modules
- Remote water level and water flow monitoring with Onset’s water level module (RXMOD-W1)
- Access to NEWA plant disease risk and insect pest models
## HOBO RX3000 Data Logger Specifications

<table>
<thead>
<tr>
<th><strong>Operating Range</strong></th>
<th>-40° to 60°C (-40° to 140°F); no remote communications for battery voltage less than 3.9 V DC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Smart Sensor Connectors</strong></td>
<td>10</td>
</tr>
<tr>
<td><strong>Smart Sensor Network Cable Length</strong></td>
<td>100 m (328 ft) maximum</td>
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<tr>
<td><strong>Smart Sensor Data Channels</strong></td>
<td>Maximum of 15 (some smart sensors use more than one data channel; see sensor manual for details)</td>
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<tr>
<td><strong>Module Slots</strong></td>
<td>2</td>
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<tr>
<td><strong>Logging Rate</strong></td>
<td>1 second (RX3001 and RX3002) or 1 minute (RX3003 and RX3004) to 18 hours</td>
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<tr>
<td><strong>Time Accuracy</strong></td>
<td>±8 seconds per month in 0° to 40°C (32°F to 104°F) range; ±30 seconds per month in -40° to 60°C (-40° to 140°F) range</td>
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<tr>
<td><strong>Battery Type/Power Source</strong></td>
<td>4 Volt, 10 AHR, rechargeable sealed lead-acid; external power required using one of these options: AC power adapter (AC-U30), solar panel (SOLAR-xW), or external power source 5 V DC to 17 V DC with external DC power cable (CABLE-RX-PWR)</td>
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<tr>
<td><strong>Rechargeable Battery Service Life</strong></td>
<td>Typical 3–5 years when operated in the temperature range -20° to 40°C (-4°F to 104°F); operation outside this range will reduce the battery service life</td>
</tr>
<tr>
<td><strong>Memory</strong></td>
<td>32 MB, 2 million measurements, continuous logging</td>
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<tr>
<td><strong>Alarm Notification Latency</strong></td>
<td>Logging interval plus 2–4 minutes, typical</td>
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<td><strong>Enclosure Access</strong></td>
<td>Hinged door secured by two latches with eyelets for use with user-supplied padlocks</td>
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<tr>
<td><strong>LCD</strong></td>
<td>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</td>
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<tr>
<td><strong>Materials</strong></td>
<td>Outer enclosure: Polycarbonate/PBT blend with stainless steel hinge pins and brass inserts; Inner enclosure: Polycarbonate; Gaskets: Silicone rubber; Cable channel: EPDM rubber; Cable opening cover: Aluminum with ABS plastic thumb screws; U-Bolts: Steel with zinc dichromate finish</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td>18.6 x 18.1 x 11.8 cm (7.3 x 7.1 x 4.7 in.); see diagrams on next page</td>
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<tr>
<td><strong>Weight</strong></td>
<td>2.2 kg (4.85 lb)</td>
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<tr>
<td><strong>Mounting</strong></td>
<td>3.8 cm (1.5 inch) mast or wall mount</td>
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<tr>
<td><strong>Environmental Rating</strong></td>
<td>Weatherproof enclosure, NEMA 4X (requires proper installation of cable channel system)</td>
</tr>
</tbody>
</table>

### Wireless Radio
- **RX3002:**
  - GSM/GPRS/EDGE: Quad band 850/900/1800/1900 MHz, UMTS/HSPA+: Five band 800/850/900/1900/2100 MHz
- **RX3003:**
  - GSM/GPRS/EDGE: Quad band 850/900/1800/1900 MHz
  - UMTS/HSPA+: Seven band 800/850/900/1800/1900/2100 MHz
  - LTE: Twelve Band 700/800/850/900/1800/1900/2100/2600 MHz
- **RX3004:**
  - GSM/GPRS/EDGE: Quad band 850/900/1800/1900 MHz
  - UMTS/HSPA+: Seven band 800/850/900/1800/1900/2100 MHz
  - LTE: Twelve Band 700/800/850/900/1800/1900/2100/2600 MHz

### Antenna
- **RX3003:** Penta band
- **RX3004:** 4G LTE

### Ethernet (RX3001)
- **Connector:** One RJ45/100BaseT

### Wi-Fi (RX3002)
- **Network Standards:** IEEE 802.11b/g/n
**Frequency Range** | 2.412–2.484 GHz

**Antenna Connector** | 1, no diversity supported

**Data Rates** | 1, 2, 5.5, 11 Mbps (802.11b); 6, 9, 12, 18, 24, 36, 48, 54 Mbps (802.11g); 802.11n, HT20 MCS0 (6.5 Mbps) to HT20 MC87 (65 Mbps)

**Number of Selectable Radio Subchannels** | Up to 14 channels; profiles available will include USA, France, Japan, Spain, Canada, and “Other” (multiple countries)

**Radio Modulations** | OFDM, DSSS, DBPSK, DQPSK, CCK, 16QAM, 64QAM

**Security** | WEP 64/128, WPA-PSK, AES end-to-end encryption, WPA2, protocols not listed are not supported

**Maximum Receive Level** | -10 dBm (with PER <8%)

**Receiver Sensitivity** | -72 dBm for 54 Mbps, -87 dBm for 11 Mbps, -89 dBm for 5.5 Mbps, -90 dBm for 2.0 Mbps, -92 dBm for 1.0 Mbps

**Cellular (RX3003 and RX3004)**

**RX3003:**
- GSM/GPRS/EDGE: Quad band 850/900/1800/1900 MHz, UMTS/HSPA+: Five band 800/850/900/1900/2100 MHz

**RX3004:**
- GSM/GPRS/EDGE: Quad band 850/900/1800/1900 MHz
- UMTS/HSPA+: Seven band 800/850/900/1800/1900/2100 MHz
- LTE: Twelve Band 700/800/850/900/1800/1900/2100/2600 MHz

**Antenna**
- RX3003: Penta band
- RX3004: 4G LTE

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**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
- Fax 1-508-759-9100

Technical Support (8am to 6pm ET, Monday through Friday)
- Contact Product Support www.onsetcomp.com/support/contact
- Call 1-508-759-9500
- In U.S. toll free 1-877-564-4377

Onset Computer Corporation
470 MacArthur Boulevard
Bourne, MA 02532

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