

## RX2100 Data Logger

### MicroRX Station

The compact and rugged HOBO MicroRX Station is an easy-to-deploy, low-cost cellular solution for long-term, reliable field monitoring. Two power source options are available: a solar panel for extended deployments, and user-replaceable batteries for flexible mounting in covered or protected locations. The station includes inputs for up to five of Onset's research-grade plug-and-play sensors, and can be ordered with an additional water level sensor input with integrated flow conversion. Configurable station-side alarms trigger immediate notifications of critical conditions, and Onset's cloud-based HOBOLink platform makes it easy to view, access, and share data.



#### Supported Measurements:


Absolute Pressure, 4-20mA, AC Current, AC Voltage, Amp Hour (Ah), Barometric Pressure, DC Voltage, Evapotranspiration, Kilowatt Hours (kWh), Leaf Wetness, Light Intensity, PAR, Power Factor (PF), Pulse Input, Rainfall, Relative Humidity, Soil Moisture, Temperature, Volt-Amp Reactive hour, Volt-Amps (VA), Water Level, Watt Hours (Wh), Watts (W) and Wind

#### Key Advantages:

- Compact size for easy deployment
- Robust, weatherproof IP66/NEMA 4X enclosure
- Two power options:
  - Integrated 1.7W solar panel with rechargeable battery pack
    - 5W and 15W external solar panels can be added (RX2102 or RX2104 only)
  - User-replaceable AA lithium batteries
- Inputs for five plug-and-play smart sensors
- Optional water level sensor input (RX2103 and RX2104 only)
- Built-in LCD confirms proper setup and operation
- Integrated mounting tabs for use with screws, zip ties, or U-bolts
- Station-side alarms, including water flow and accumulated rainfall
- Up to 10-minute connection rates via 4G cellular data plans
- Cloud-based monitoring and data access through HOBOLink

## RX2100 Data Logger Specifications

<b>Operating Range</b>	RX2101 and RX2103: -40° to 60°C (-40° to 140°F) RX2102 and RX2104: -20° to 60°C (-4° to 140°F)
<b>Smart Sensor Connectors</b>	5
<b>Smart Sensor Network Cable Length</b>	100 m (328 ft) maximum
<b>Smart Sensor Data Channels</b>	Maximum of 15 (some smart sensors use more than one data channel; see sensor manual for details)
<b>Logging Rate</b>	1 minute to 18 hours
<b>Time Accuracy</b>	±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
<b>Battery Type/Power Source</b>	RX2102 and RX2104: Integrated 1.7 watt solar panel and NiMH rechargeable battery pack; optional AC power adapter (P-AC-1) or external solar panel (SOLAR-xW) can be used in place of integrated solar panel RX2101 and RX2103: 6 AA 1.5 V lithium batteries or AC power adapter (P-AC-1)
<b>Battery Life</b>	<p><b>RX2102 and RX2104 Battery Life:</b> Typical 3–5 years when operated in the temperature range -20° to 40°C (-4° to 104°F); operation outside this range will reduce the battery service life. Maximum connection rates with built-in solar panel, in full sun:</p> <ul style="list-style-type: none"> <li>• 10 minute connections year round for latitudes less than ±40°</li> <li>• 10 minute connections through three seasons in other regions, reduced to 30 minute connections in winter</li> </ul> <p>Maximum connection rates with external 5W or 15W solar panels:</p> <ul style="list-style-type: none"> <li>• 10 minute connections year round, in full sun</li> <li>• Connection rate with external solar panels may be less if deployed in partial sun</li> </ul> <p>Battery life without solar recharging, with hourly connections and 1 minute logging:</p> <ul style="list-style-type: none"> <li>• RX2102: 3 months</li> <li>• RX2104: 2 months</li> </ul> <p><b>RX2101 and RX2103 Battery Life:</b> Battery life with daily connections:</p> <ul style="list-style-type: none"> <li>• RX2101: 1 year with 1 minute logging</li> <li>• RX2103: 1 year with 2 minute logging</li> </ul> <p>Battery life with hourly connections and 1 minute logging:</p> <ul style="list-style-type: none"> <li>• RX2101: 3 months</li> <li>• RX2103: 2 months</li> </ul> <p>Note: Deployments in areas with weak cellular strength could reduce battery life.</p>
<b>Memory</b>	16 MB, 1 million measurements, continuous logging
<b>Alarm Notification Latency</b>	Logging interval plus 2–4 minutes, typical
<b>Enclosure Access</b>	Hinged door secured by two latches with eyelets for use with user-supplied padlocks
<b>LCD</b>	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
<b>Materials</b>	Outer enclosure: Polycarbonate/PBT blend with brass inserts; Interior: Polycarbonate/PBT; Gasket: Silicone foam; Cable channel: Santoprene™ TPE; U-Bolts (not included): Steel with zinc dichromate finish
<b>Dimensions</b>	19.95 x 13.68 x 7.49 cm (7.85 x 5.39 x 2.95 in.)
<b>Weight</b>	678 g (23.9 oz)
<b>Mounting</b>	Optional U-bolts are compatible with masts up to 4.14 cm (1.63 in.) mast diameter; can also be mounted with zip ties or mounted to a flat surface with screws
<b>Environmental Rating</b>	Weatherproof enclosure, NEMA 4X and IP66 (requires proper installation of cable channel system)
<b>Wireless Radio</b>	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	4G LTE
CE	The CE Marking identifies this product as complying with all relevant directives in the European Union (EU)
FCC 	FCC ID QIPPLS62-W, IC ID:7830A-PLS62W



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