HOBO® 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, Dew Point, Evapotranspiration, Kilowatt Hours (kWh), Leaf Wetness, Light Intensity, PAR, Power Factor (PF), Pulse Input, Rainfall, Relative Humidity, Soil Moisture, Solar Radiation, Temperature, Volt-Amp Reactive hour, Water Flow, 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 to MicroRX Station (RX2102), MicroRX Water Level Station (RX2104) or MicroRX Station for HOBOnet (RX2106)
  - User-replaceable AA lithium batteries
- Inputs for five plug-and-play sensors
- Option for wireless sensors using HOBOnet (RX2106 only)
- Optional water level sensor input included in MicroRX Water Level Station, battery-powered (RX2103) and MicroRX Water Level Station, solar-powered (RX2104)
- 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

HOBO RX2100 Data Logger Specifications

Operating Range	MicroRX Station, battery-powered (RX2101) and Micro RX Water Level Station, battery-powered (RX2103): -40° to 60°C (-40° to 140°F) MicroRX Station, solar-powered (RX2102), MicroRX Water Level Station, solar-powered (RX2104) and MicroRX Station for HOBOnet, solar-powered (RX2106): -20° to 60°C (-4° to 140°F)
Smart Sensor Connectors	5
Smart Sensor Network Cable Length	100 m (328 ft) maximum
Smart Sensor Data Channels	Maximum of 15 (some smart sensors use more than one data channel; see sensor manual for details)
Logging Rate	1 minute to 18 hours
Time Accuracy	±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
Battery Type/Power Source	RX2102, RX2104 and RX2106: 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)
Battery Life	**RX2102, RX2104 and RX2106 Battery Life:** 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: • 10 minute connections year round for latitudes less than ±40° • 10 minute connections through three seasons in other regions, reduced to 30 minute connections in winter Maximum connection rates with external 5W or 15W solar panels: • 10 minute connections year round, in full sun • Connection rate with external solar panels may be less if deployed in partial sun Battery life without solar recharging, with hourly connections and 1 minute logging: • RX2102: 3 months • RX2104: 2 months • RX2106: 3 months **RX2101 and RX2103 Battery Life:** Battery life with daily connections: • RX2101: 1 year with 1 minute logging • RX2103: 1 year with 2 minute logging Battery life with hourly connections and 1 minute logging: • RX2101: 3 months • RX2103: 2 months Note: Deployments in areas with weak cellular strength could reduce battery life.
Memory	16 MB, 1 million measurements, continuous logging
Alarm Notification Latency	Logging interval plus 2–4 minutes, typical
Enclosure Access	Hinged door secured by two latches with eyelets for use with user-supplied padlocks
LCD	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
Materials	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
Dimensions	19.95 x 13.68 x 7.49 cm (7.85 x 5.39 x 2.95 in.)
Weight	678 g (23.9 oz)
Mounting	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
Environmental Rating	Weatherproof enclosure, NEMA 4X and IP66 (requires proper installation of cable channel system)

Wireless Radio	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)
FC	FCC ID QIPPLS62-W, IC ID:7830A-PLS62W

Contact Us

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