

U30-NRC

HOBO U30 USB Weather Station

15 Channel Energy Monitoring and Weather Station Data Logger

A rugged weather station for outdoor environmental monitoring; easily configurable for specific application needs, with up to 15 channels to collect environmental data.

Important Information

External sensors sold separately. Requires HOBOWare software and a communications device. See compatible items below.



Compatible with
HOBOWare[®] Software

Supported Measurements

4-20mA, AC Current, AC Voltage, Air Velocity, Amp Hour (Ah), Amps (A), Barometric Pressure, Compressed Air Flow, DC Current, DC Voltage, Dew Point, Differential Pressure, Gauge Pressure, Kilowatt Hours (kWh), Kilowatts (kW), Leaf Wetness, Light Intensity, PAR, Power Factor (PF), Pulse Input, Rainfall, Relative Humidity, Soil Moisture, Solar Radiation, Temperature, Volt-Amp Reactive, Volt-Amp Reactive hour, Volt-Amps (VA), Volts (V), Water Flow, Water Level, Watt Hours (Wh), Watts (W), Wind

Features

- All electronics are housed within a rugged double-weatherproof, tamper-proof enclosure
- Setup is quick and easy with plug-and-play sensors
- Fast data offload via USB
- Optional analog inputs with sensor excitation
- Includes relay that can be activated on user-defined alarm conditions

What's in the box

- HOBO U30-NRC Station Data Logger
- Mounting kit
- Grounding wire
- Cable entry and sealing kit
- Optional analog sensor port (if ordered)
- Optional sensor expander board (if ordered)

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

Onset Computer Corporation
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Bourne, MA 02532

Technical Support (8am to 5pm 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

HOBO U30 USB Weather Station (U30-NRC) Specifications

Station	
Normal Operating Range	-20 to 40°C (-4 to 104°F)
Extended Operating Range	-40 to 60°C (-40 to 140°F) - see "Rechargeable Battery service Life" for impact of operations in Extended Operating Range.
Smart Sensor Connectors	10
Smart Sensor compatibility	Compatible with most Onset smart sensors, except for the S-BPA, S-TMA and S-THA
Smart Sensor Data Channels	Maximum of 15 (some sensors use more than one data channel; see sensor manual for details)
Alarm Output Relay	One relay contact closure can be configured as normally open, normally closed, or pulsed. Voltage: 30 V Current: 1 amp max.
Smart Sensor Network Cable Length	100 m maximum (328 ft maximum)
Logging Interval	1 second to 18 hours
Start Modes	Immediate, at interval, push button, or delayed start
Memory Modes	Stop when full or wrap when full
Memory	512 KB nonvolatile flash data storage
Operational Indicators	Three status lights provide basic diagnostics
Time Accuracy	0 to 2 seconds for the first data point and ±5 seconds per week at 25°C (77°F)
Battery Type/Power Source	4 Volt, 10 AHr, rechargeable sealed lead-acid; external power required using one of these options: AC power adapter (AC-U30) or solar panel (SOLAR-xW)
Rechargeable Battery Service Life	Typical 3–5 years depending upon conditions of use. Operation within the extended operating range (but outside the normal range) will reduce battery service life.
Communication Type	Full speed USB via USB mini-B connector
Full Memory Download Time	4 minutes
Enclosure Access	Hinged door secured by two latches with eyelets for securing with user-supplied padlocks
Materials	Outer enclosure: Polycarbonate/PBT blend with stainless steel hinge pins and brass inserts Inner enclosure: Polycarbonate with brass inserts U-Bolts: Steel with zinc dichromate finish Gaskets: Silicone rubber Cable entry channel: EPDM rubber Cable entry bars: Aluminum, metal thumbscrews with plastic heads
Dimensions	18.9 H x 11.8 D x 18.1 W cm (see diagrams on next page)
Weight	2.2 kg (4 lbs 13 oz)
Mounting	3.8 cm mast or wall mount (1.5 inch mast or wall mount)
Environmental Rating	Weatherproof enclosure, tested to NEMA 6 (Requires proper installation of cable channel system)

Analog Sensor Port	
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Input Channels	Two, single-ended
Field Wiring	Two- or three-wire via screw terminals on detachable connector, 16–24 AWG
Replacement Detachable Connectors	Part of spares kit, Part No. A-FS-CVIA-7P-1
Input Range	User-configurable: 0–20 mA DC, 0–2.5 VDC, 0–5 VDC, 0–10 VDC, and 0–20 VDC (the voltage range is determined based on the raw values entered for the voltage scaling in HOBOWare)
Minimum/Maximum Input Voltage	0 / 24 VDC
Minimum/Maximum Input Current	0 / 24 mA DC
Minimum Current Source Impedance	> 20 K Ω
Accuracy	$\pm 0.25\%$ of FSR from 50mV to FSV
ADC Resolution	12 bits

