



HOBO® U30-NRC Data Logger

U30 USB Weather Station Data Logger

This rugged weather station is Onset's most durable outdoor environmental monitoring solution. Users can easily configure the HOBO U30-NRC Weather Station to fit their application needs. Use up to 15 channels to collect environmental data and then upload to HOBOWare® software for analysis. HOBOWare Pro is recommended for extended features, see the comparison here. The U30-NRC has four configurable systems, that can be configured below, that consist of the following part numbers: U30-NRC-000-05-S100-000, U30-NRC-000-10-S100-000, U30-NRC-VIA-05-S100-000, and U30-NRC-VIA-10-S100-000.



Key Advantages:

- 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

HOBO U30-NRC Data Logger Specifications

Normal operating range: -20°C to 40°C (-4°F 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.

Sensor Inputs: 5 standard; option to expand to 10

Smart Sensor compatibility: Compatible with most Onset smart sensors, except for the S-BPA, S-TMA and S-THA

Data channels: Maximum of 15 (some sensors use more than one data channel)

Alarm output relay: Can be configured to be activated, deactivated or pulsed on user-defined sensor alarms. The relay can be configured as normally open or normally closed, and is rated for 30 V and 1 amp max.

Expansion slot: One expansion slot is available for factory-installed expansion port.

Local communication: Full Speed USB via USB mini-B connector

Size: 17.8 H x 11.7 D x 19.3 W cm (7.0 H x 4.6 D x 7.6 W inches)

Weight: 2 kg (4 lbs 10 oz)

Materials:

Outer enclosure: ABS blend with stainless steel hinge pins and bronze inserts

Inner enclosure: Polycarbonate with bronze inserts

U-Bolts: Steel with zinc dichromate finish

Gaskets: Silicone rubber

Cable entry channel: EPDM rubber

Cable entry bars: Aluminum with ABS plastic thumb screws

Data storage memory: Nonvolatile flash data storage, 512K bytes local storage

Memory modes: Stop when full, wrap around when full

Operational indicators: Up to six (depending upon options) status lights provide basic diagnostics

Logging interval: 1 second to 18 hours, user-specified interval

Battery type: 4 Volt, 4.5 AHr or 10 AHr, Rechargeable sealed lead-acid

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.

Time accuracy: 0 to 2 seconds for the first data point and ± 5 seconds per week at 25°C (77°F)

Environmental rating: Weatherproof enclosure, tested to NEMA 6. (Requires proper installation of cable channel system)

Mounting: 3.8 cm (1.5 inch) mast or wall mount

Enclosure access: Hinged door secured by two latches with eyelets for securing with user-supplied padlocks

Sensor network cable length: 100 m (328 ft) maximum

External power: External power is required. The system optionally accepts the following Onset solar panels: SOLAR-1.2W, SOLAR-3W, SOLAR-6W. Alternatively it accepts an AC power adapter: AC-U30

Optional Analog Sensor Port Specifications

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, or 0–20 VDC

Minimum/maximum input voltage: 0 / 24 VDC

Minimum/maximum input current: 0 / 24 mA DC

Minimum current source impedance: > 20 K

Accuracy: $\pm 0.25\%$ of FSR from 50mV to FSV

ADC resolution: 12 bits

Excitation power: Switched 12 VDC, up to 50 mA; user-selectable warm-up from 5msec to 2 minutes

