



## 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  $\pm 5$  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

## Contact Us

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