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.

Supported Measurements:

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

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: ± 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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