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HOBO U30 USB - 15 Channel Weather Monitoring Data Logger

Product Images

Short Description

Rugged data logging and monitoring device with built in USB communication that can be easily reconfigured and adapted to measure a wide variety of sensors particularly for weather and energy monitoring.

Description

The U30 is Onset's most durable monitoring solution. Easily configure the HOBO U30-NRC to fit your application needs - use up to 15 channels to collect data and then upload to HOBOware® software for analysis. HOBOware Pro is recommended for extended features.

Key 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 analogue inputs with sensor excitation
- Includes a relay that can be activated on user-defined alarm conditions.

The U30 supports a wide range of sensors and accessories; some of which are listed as related products below. Also available in pre-configured kit: U30 USB Weather Station Starter Kit.

Additional Information

Country of Manufacture	United States
Explanation	**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. **Smart Sensor inputs:** 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 Analogue 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 KΩ **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
Brand	Onset HOBO
Channel(s)	15
Onset Product Series	U30
Typical applications	Energy, Environmental (Indoor), Environmental (Outdoor), Field Research, Non Specific, Weather Monitoring
Measurements	4-20mA, Air Velocity, Amp Hour (Ah), Amps (A), Barometric Pressure, CO2, Compressed Air Flow, Current AC, Current DC, Differential Pressure, Event, Humidity, kWh, Leaf Wetness, Pulse, Rainfall, Soil Moisture, Solar Radiation, Temperature, Universal, Volatile Organic Comp., Volt-Amp Reactive, Volt-Amp Reactive hour, Volt-Amps (VA), Voltage AC, Voltage DC, Volts (V), Water Flow, Water Level, Watt Hours (Wh), Watts (W), Wind Direction, Wind Speed

Additional Options

Analogue Sensor Port Option	2 Channel Analogue Sensor Port (SKU: U30-NRC-VIA-10-S100-00)
HOBOware Pro Software Options	HOBOware Pro on USB Drive (USB cable included)
	HOBOware Pro on CD (USB Cable Included)
	HOBOware Pro - Download Only (USB cable NOT included)
USB Cable (included with HOBOware Pro on USB Drive & CD)	HOBO U-Series to PC USB Cable
Power Options	Replacement 10 Ahr Battery for U30 & RX3000
	AC Battery Charger for U30
	SOLAR-5W - 5 Watt Solar Panel
Mounting Options	HOBO 2-Metre Tripod Kit (M-TPB-KIT)
	HOBO 3-Metre Tripod Kit (M-TPA-KIT)