HOBO U30 systems provide real-time access to data from any web browser. Whether you're tracking climate conditions for field research, or measuring energy usage in a commercial building, HOBO U30 monitoring systems deliver accurate, dependable data right to your desktop via Onset's HOBOlink web-based software (see page 55 for details).

Key Advantages:

- Web-based energy and environmental monitoring
- All electronics are housed within an industrial-grade, tamperproof enclosure
- Setup is quick and easy with plug-and-play sensors
- Measures a wide range of energy and environmental parameters
- GSM Cellular, Wi-Fi, Ethernet, direct USB options available
- Works with Onset's E50B2 Power & Energy Meter to measure Power Factor (PF), Reactive Power (VAR), Watt Hours (Wh) and more

Data Logging Systems

Industrial-grade dependability

HOBO U30 Remote Monitoring Systems deliver high accuracy measurements you can count on — in even the harshest environmental conditions. All at a fraction of the cost of competitive solutions.

Incorporating patented technology, all of the system's electronics are housed within a rugged double-weatherproof, tamperproof enclosure. This provides twice the protection and ensures years of reliable monitoring performance.

Fast, easy deployment

Plug-and-play architecture enables any combination of Smart Sensors to be plugged in without extensive user programming, wiring, or calibration. Plug in your sensors, connect the battery, and you're streaming real time data!

Learn More:
See specifications on page 45
See pricing on pages 46-47

See page 55 to learn more about HOBOlink, a web-based software platform that provides access to the HOBO U30 Remote Monitoring Systems.

Wide range of measurements

HOBO U30 systems measure and record a wide range of parameters including:

INDOOR ENVIRONMENTAL
- Temperature
- Relative Humidity
- CO_2
- Air Velocity
- VOCs

ENERGY/POWER
- kW & kWh
- Power Factor
- Volt Amp Reactive Hour
- Watt Hours
- Amp Hours
- True Power
- AC/DC Current
- AC/DC Voltage
- Differential Pressure
- Gauge Pressure
- Compressed Air Flow
- Reactive Power
- Volts-Amps
- Amps

WEATHER
- Temp/RH
- Solar Radiation
- PAR
- Rainfall
- Wind Speed & Direction
- Wind Speed
- Soil Moisture
- Barometric Pressure
- Leaf Wetness

An optional analog sensor port provides sensor power with user-selectable warm-up time.

Available models include:

HOBO U30/GSM

- Buit-in GSM cellular means no IT road-blocks
- Double weather proof, tamperproof enclosure

HOBO U30/Wi-Fi

- Ruggedized hard-ware, with integrated Wi-Fi
- Get notified of problems via cell phone or email

HOBO U30/ETH

- Remote access to real-time data over Ethernet
- Simplifies facility-wide monitoring

HOBO U30/NRC

- Fast data offload via direct USB
- Optional analog inputs with sensor excitation

Specifications

GSM Wireless Communications	Quad-Band GSM/GPRS 850/900/1800/1900 MHz
Wi-Fi Wireless Communications	2.412 - 2.484 GHz IEEE 802.11 b/g
Ethernet	10Base-T or 100Base-TX (using external RJ45 jack) 256-bit AES Rijndael encryption
Alarm Relay	Can be activated, deactivated or pulsed on user-defined sensor alarms. The relay can be configured as normally open or normally closed, (30V, 1A Max)
Alarm Notification Latency	Logging interval plus 2 to 4 minutes (typical)
Certifications	FCC Certified. Check www.onsetcomp.com for the latest certifications. CE
Smart-Sensor Inputs	5 or 10
Data Channels	Maximum of 15 (some sensors use more than one data channel)
Sensor Network Cable Length	100 m (328 ft) maximum
Normal Operating Range	-20 to 40ºC (-4 to 140ºF)
Extended Operating Range	-40 to 60ºC (-40 to 140ºF) see battery life, Note: the GSM module will not communicate below -30ºC (-22ºF)
Local Communication	USB
Data Storage Memory	512K bytes local storage in non-volatile flash memory
Operational Indicators	LEDs show status
Logging Interval	1 minute to 18 hours, user-specified
Station-to-Internet Upload Interval	10 minutes minimum, user-specified (depends on HOBOlink data service plan)
Power	An Onset solar panel (1.2w, 3w, 6w) or AC adapter is required
Battery Type	4 Volt, 10 AHr, or 4.5 AHR Rechargeable Sealed Lead Acid
Battery Life	Typical 3-5 years depending upon conditions of use. Regular operation outside of the normal operating range will reduce battery life to 1-2 years.
Environmental Rating	Weatherproof; tested to NEMA 6
Dimensions	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 (4.30 lbs.)
Mounting	Up to 1.63 in (4.1 cm) mast or wall mount
Enclosure Access	Hinged door secured by two latches, which can be further secured with user-supplied padlocks
Optional Analog Sensor Port	
Inputs	2 channels - User-configured as either 0-20 mA or 0-20 VDC
Sensor Power	Switched 12 VDC, up to 50 mA: user-selectable warm-up from 5 milliseconds to 2 minutes
Scaling	Linear scaling to user units
Accuracy	±0.25% full scale

Note: Some HOBO U30 models require high-speed internet access and a data plan with HOBOlink.com, an Onset-hosted and managed web service. See page 46 for more details.

Data Logging Systems

HOBO Remote Monitoring Systems with GSM Communications	GSM Cellular to Internet	**U30-GSM** - ___	- __	-**S100** - ___	
Sensor Port Options	No sensor port	**000**			
	2-channel analog sensor port	**VIA**			
Smart Sensor Input Options	5 smart sensor inputs	**05**			
	10 smart sensor inputs	**10**			
Battery Option	10 Ah rechargeable battery	**S100**			
Global Data Service (work with AT&T and T-Mobile networks in the US; includes HOBOlink service)*	20 minute calling (1 min log)	**303**			
	30 minute calling (1 min log)	**304**			
	20 calls per day (1 min log)	**305**			
T-Mobile-Only Plans (includes HOBOlink Service)*	10 minute calling (1 min log)	**102**			
	1 call per day (15 min log)	**105**			
AT&T-Only Plan (includes HOBOlink Service)*	10 minute calling (1 min log)	**202**			

See onsetcomp.com for the latest selection of service plans.
*Early termination fees apply. A 200 fee will be assessed for terminating the service plan within 30 days. No refund will be applied for terminating the plan after 30 days.

HOBO Remote Monitoring Systems with Wi-Fi Communications**	Wi-Fi to Internet	**U30-WIF** -___	-__	-_____	-___	
Sensor Port Options	No sensor port	**000**				
	2-channel analog sensor port	**VIA**				
Smart Sensor Input Options	5 smart sensor inputs	**05**				
	10 smart sensor inputs	**10**				
Battery Option	4.5 Ah rechargeable battery	**S045**				
	10 Ah rechargeable battery required when using analog sensor port for sensor power	**S100**				
HOBOlink Data Service	10 minute upload (1 sec log)	**001**				
	10 minute upload (1 min log)	**002**				
	1 hr uploads (5 min log)	**003**				

See onsetcomp.com for the latest selection of service plans.
***Pre-N routers are Preliminary and should not be used with U30 Wi-Fi Remote Monitoring Systems.*

HOBO Remote Monitoring Systems with Ethernet Communications	Ethernet to Internet	**U30-ETH** -___	-__	-_____	-___	
Sensor Port Options	No sensor port	**000**				
	2-channel analog sensor port	**VIA**				
Smart Sensor Input Options	5 smart sensor inputs	**05**				
	10 smart sensor inputs	**10**				
Battery Option	4.5 Ah rechargeable battery	**S045**				
	10 Ah rechargeable battery required when using analog sensor port for sensor power	**S100**				
HOBOlink Data Service	10 minute upload (1 sec log)	**001**				
	10 minute upload (1 min log)	**002**				
	1 hr uploads (5 min log)	**003**				

See onsetcomp.com for the latest selection of service plans.

HOBO Remote Monitoring Systems without remote communications	No remote communication	**U30-NRC** -___	-__	-_____	-**000**	
Sensor Port Options	No sensor port	**000**				
	2-channel analog sensor port	**VIA**				
Smart Sensor Input Options	5 smart sensor inputs	**05**				
	10 smart sensor inputs	**10**				
Battery Options	4.5 Ah rechargeable battery	**S045**				
	10 Ah rechargeable battery required when using analog sensor port for sensor power	**S100**				
Data Plan	No data plan needed	**000**				

Software (one required)	HOBO U30 Shuttle	U-DT-2
	HOBOware Pro (Windows/Mac)	BHW-PRO-CD

See next page for Sensors and Accessories

Power Source Options
1.2 Watt Solar Panel for sunny locations and/or locations with low data transfer requirements (readout every 2 hours or longer).
SOLAR-1.2W

3.0 Watt Solar Panel for moderately sunny locations and/or medium data transfer requirements (such as hourly readout).
SOLAR-3W

6.0 Watt Solar Panel for cloudy locations and/or high data transfer requirements (faster than 15 minute readouts).
SOLAR-6W

AC Power Adapter (120V, 60Hz) for locations with AC power available. The adapter is not weatherproof.
AC-U30

AC Power Adapter (EU) (240V, 50Hz) for locations with AC power available. The adapter is not weatherproof.
AC-U30-EU

Weather Sensors

Temperature	
2-m cable	S-TMB-M002
6-m cable	S-TMB-M006
17-m cable	S-TMB-M017
Temp/RH	
2-m cable	S-THB-M002
8-m cable	S-THB-M008
Wind Speed/Direction	S-WCA-M003
Wind Speed Sensor	S-WSA-M003
Rain Gauge: (0.01 in)	S-RGA-M002
Rain Gauge: (0.2 mm)	S-RGB-M002
Soil Moisture (EC-5)	S-SMC-M005
Soil Moisture (10HS)	S-SMD-M005
Leaf Wetness	S-LWA-M003
PAR	S-LIA-M003
Solar Radiation	S-LIB-M003
Barometric Pressure	S-BPB-CM50

E50B2 Power & Energy Meter   T-VER-E50B2
(requires 1 to 3 Pulse Input Adapters)
Measurements: AC Current,
AC Voltage, Amp Hour, Amps,
Kilowatt Hours, Kilowatts,
Power Factor, Volt-Amp Reactive,
Volt-Amp Reactive Hour, Volt-Amps,
Volts, Watt Hours, Watts

Sensors that require Pulse Input Adapter

kWh	
Wye config 208/240	T-WNB-3Y-208
Wye config opt P3	T-WNB-3Y-208-P
Delta/Wye config 208/240	T-WNB-3D-240
Delta/Wye config 480	T-WNB-3D-480
"B" Series Voltage Lead Set	A-WNB-LEADSET
Veris kWh	
1-phase, 300 Amp	T-VER-8051-300
3-phase, 800 Amp	T-VER-8053-800
Water Flow Meter	T-MINOL-130

Sensor Adapters
Pulse Input Adapter:

-Electronic Switch	S-UCC-M00x
-Contact Closure	S-UCD-M00x

Sensors that require Analog Sensor Port

Ashcroft Gauge Pressure	
100 psig	T-ASH-G2-100
200 psig	T-ASH-G2-200
500 psig	T-ASH-G2-500
Differential Air Pressure Transducer	
.01-10.0 WC	T-VER-PXU-L
.01-10.0 WC	T-VER-PXU-X
CO_2/Temp	TEL-7001
CO_2/Temp Port Cable	CABLE-2070
kW	T-VER-8044-100
Duct-Mount Temp/RH	T-VAI-HMD-40Y
DC Amperage	T-VER-H970-080
DC Current	
0-200 Amp	T-VER-H970-200
-200-200 Amp	T-VER-971BP-200
Air Velocity Sensor	
0.15-10 m/s	T-DCI-F900-L-P
0.15-5 m/s	T-DCI-F900-L-O
0.15-10 m/s	T-DCI-F900-S-P
0.15-5 m/s	T-DCI-F900-S-O
Compressed Air Flow Meter	
1-80 SCFM	T-CDI-5200-10S
3-350 SCFM	T-CDI-5400-20S

Sensors that require True RMS Adapter

TRMS Module	S-FS-TRMSA-D
AC Amperage	
0-5 Amp	T-MAG-SCT-005
0-20 Amp	T-MAG-SCT-020
0-50 Amp	T-MAG-SCT-050
0-100 Amp	T-MAG-SCT-100
0-200 Amp	T-MAG-SCT-200
0-600 Amp	T-MAG-SCT-600
AC Amperage (mini CT)	
0-5 Amp	T-MAG-0400-05
0-10 Amp	T-MAG-0400-10
0-20 Amp	T-MAG-0400-20
0-50 Amp	T-MAG-0400-50
0-75 Amp	T-MAG-0400-75
AC Voltage	
0-150 Volt	T-MAG-SPT-150
0-300 Volt	T-MAG-SPT-300
0-600 Volt	T-MAG-SPT-600

Adapters for R.M. Young Wind Monitoring Sensors

Wind Monitor AQ	S-WCB-M003
Marine Wind Monitor	S-WCC-M003
Wind Sentry	S-WCD-M003
Wind Alpine	S-WCE-M003

Tripod/Masts and Accessories

2m Tripod with Mast (M-SKB recommended)	M-TPB
Complete 2 Meter Tripod Kit	M-TPB-KIT
3m Tripod with Mast (M-SKA recommended)	M-TPA
Complete 3 Meter Tripod Kit	M-TPA-KIT
3 m Mast	M-MPA
1.5 m Mast	M-MPB
Guy Wire Kit	M-GWA
1/4 in. State Kit	M-SKB
1/2 in. State Kit	M-SKA
Grounding Kit	M-GKA
(does not provide protection from direct lightning strikes)	
Mast Level	M-MLA
(recommended for installing masts or tripods)	
Half Cross Arm	M-CAB
(recommended for use with wind sensors)	
Solar Radiation Shield	RS3
(for use with temperature and temp/RH sensors)	
Light Sensor Bracket	M-LBB
(for mounting PAR and solar radiation sensors on masts or flat vertical surfaces)	
Light Sensor Level	M-LLA
(recommended for installing PAR and solar radiation sensors)	
NDVI Light Sensor Bracket	M-NDVI
Smart Sensor Extension Cables	
(total cable length of all sensor cables is limited to 100 m (300 ft)	
2-m length	S-EXT-M002
5-m length	S-EXT-M005
10-m length	S-EXT-M010
25-m length	S-EXT-M025
Weatherproof Connection Housing	
(required for outside connections)	S-EXT-CASE
1 to 2 Sensor Adapter	S-ADAPT-5
This allows a single Smart Sensor input to branch to two Smart Sensors.	
Cable Caddy	M-CDY
Smart Sensor Expansion Box	S-ADAPT-6

For more details on accessories, see page 50

Data Logging Systems

Supplied in Australia by Instrument Choice
Call our scientists on 1300 737 871
www.instrumentchoice.com.au