



EQUIPMENT CATALOG





CUNY Building Performance Lab (CUNY BPL) is excited to present the NYC Energy Tools website (nycenergytools.com), developed with generous support from the NYC Department of Citywide Administrative Services Division of Energy Management (DEM). In line with our mission to help advance high-performance building operations and practices, this resource is available to NYC municipal facility personnel, industry professionals, and current students and alumni of DEM's energy management courses.

The equipment library is stocked with a full range of field equipment that can be used to test, measure and diagnose building system operations, and to facilitate ongoing commissioning, building re-tuning and retrofit projects. Equipment available for loan includes HOB0 data loggers, CO2 meters, thermal imaging cameras, ultrasonic non-intrusive flow meters, balometers, light meters, power quality analyzers, and more.

Courier service is available to qualified NYC municipal facility personnel for the delivery of tools.

CUNY Building Performance Lab personnel are available to assist with the selection of equipment and to provide necessary training.

Contact

Felix Rodriguez, Equipment Specialist, CUNY BPL

frodriguez3@ccny.cuny.edu

Marco Ascazubi, Assistant Director, Technology Applications, CUNY BPL

mascazubi@ccny.cuny.edu

CONTENTS

ABOUT THIS CATALOG	5
HOW TO BORROW EQUIPMENT	6
METERS	7
Temperature	8
Relative Humidity	12
Air Flow	13
Pressure	15
Energy	16
Light	18
Operation	20
Indoor Air Quality	21
Water Flow	22
Fluid Leak	23
Sound	24
Combustion	25
Moisture	26
Media	27
LOGGERS	28
Temperature	29
Relative Humidity	32
Air Flow	34
Pressure	35
Energy	36
Light	39
Occupancy	40
Operation	41
Indoor Air Quality	42
Force	43

SENSORS	44
Temperature	45
Air Flow	46
Pressure	47
Energy	48
Light	53
Media	54
SENSOR NODES	55
Temperature	56
Relative Humidity	58
Air Flow	59
Pressure	60
Energy	62
Fluid Leak	63
RECEIVERS	64

ABOUT THIS CATALOG

Use this catalog to browse the equipment we offer at nycenergytools.com. Equipment is categorized by measurement type. Each equipment entry offers the full name, model number, description, and suitable systems of interest and measurement period.

Systems of interest:

- Boiler
- BAS (Building Automation System)
- Hot Water Loop
- Chiller
- Cooling Tower
- Chilled Water Loop
- Condenser Water Loop
- Electric Motors and Drives
- HVAC (and related systems)
- Lighting
- Building Envelope
- Data Center
- Plug Loads
- Renewable Energy
- Service Hot Water
- Water Resources Recovery

Measurement period:

- Long Term - Requires interval measurements over a period of time, typically unsupervised and requiring installation of equipment on site for the duration of the measurement period.
- Spot - Single or multiple measurements performed manually on site during a site visit. No equipment installation required.

For more info on equipment, detailed specs, related software, equipment kits, other tools and availability, visit nycenergytools.com.

HOW TO BORROW EQUIPMENT

Step 1

Go to nycenergytools.com/equipment or nycenergytools.com/equipment-kits

Step 2

Search for equipment or equipment kits by name, filter down or browse the online catalog and add desired equipment/kits to the cart.

Step 3

Log in and fill in the request form with information about you and your project and submit your reservation request. You will receive an email with the status of your request.

To borrow equipment, you must agree with our Terms of Equipment Loan. For more information see our [Borrowing Guidelines](#).



METERS

Handheld equipment with limited internal memory, used primarily for spot measurements.

TEMPERATURE



Extech EN300 - Environmental Meter

A handheld meter that measures humidity, temperature, air velocity, light, and sound.

Use for Spot measurements of HVAC and Lighting.



FLIR E60 - Thermal Imaging Camera

Comes with a 320 x 240 pixel resolution for better long-range accuracy. Displays numbers, labels, and other key visual details. Picture-in-picture feature overlays thermal images onto digital scenes for extra location documentation.

Use for Spot measurements of Building Envelope, HVAC, and Electric Motors and Drives.



FLIR E4 Wifi - Thermal Imaging Camera

Small and light, use it to point-shoot-detect and obtain high quality thermal images. Produces instant JPEG thermal imagery with all required temperature data.

Use for Spot measurements of Building Envelope, HVAC, and Electric Motors and Drives.



Fluke Ti400 - Thermal Imaging Camera

Takes high-temperature measurements up to 650°C (1,202°F). It has an image resolution of 640 x 480 pixels and photo annotation and video recording capabilities.

Use for Spot measurements of Building Envelope, HVAC, and Electric Motors and Drives.



Fluke Tis - Thermal Imaging Camera

Compact, entry-level thermal imager with a 120 x 120 pixel resolution for quick, easy, and accurate problem troubleshooting and identification of hidden building construction issues.

Use for Spot measurements of Building Envelope, HVAC, and Electric Motors and Drives.



Fluke 566 - Infrared Thermometer

Measures the temperature of objects and surfaces both from a distance and through contact with a distance-to-spot ratio of 30:1.

Use for Spot measurements of Building Envelope, HVAC, and Electric Motors and Drives.



ThermoWorks T7352 - Infrared Thermometer

Features a targeting laser that enables you to easily take temperature measurements in a range of applications. Select Fahrenheit or Celsius temperature measurement with a single switch.

Use for Spot measurements of Building Envelope, HVAC, and Electric Motors and Drives.



Extech AN25 - Heat Index Anemometer

Pocket-sized heat index anemometer that measures air velocity, heat index, relative humidity, ambient temperature, dew point, wet bulb, and windchill.

Use for Spot measurements of Building Envelope, HVAC, and Electric Motors and Drives.



Alnor AVM430 - Hot Wire Anemometer

Measures air flow, air velocity, and temperature. Ideal applications include system performance, commissioning, plant maintenance, critical environment certification, and duct traverses.

Use for Spot measurements of HVAC.



TSI VelosiCalc 9545 - Hot Wire Anemometer

Simultaneously measures and logs data for several ventilation parameters using a single probe with multiple sensors. It measures velocity, temperature, and relative humidity, and calculates flow, wet bulb, and dew point temperature.

Use for Spot measurements of HVAC.



Extech AN100 - Vane Thermo-Anemometer

Measures air velocity, air flow (volume), and temperature. This anemometer is great for taking spot measurements at supply vents.

Use for Spot measurements of HVAC.



Extech SDL310 - Vane Thermo-Anemometer

Displays and stores air velocity and temperature readings from the built-in thermometer or from an externally connected type K or J thermocouple temperature probe. Data is stored on an SD card for transfer to a computer.

Use for Spot and Long Term measurements of HVAC.

Dynasonics DTFXE-FC-AKEC-NA - Ultrasonic Flow Meter



Clamp-on meter that can be fitted to the outside of pipes and does not contact internal liquid. No need to shut down processes for installation or maintenance. An ideal meter for water, wastewater, and the chemical industry.

Use for Spot measurements of Chiller, Chilled Water Loop, Condenser Water Loop, Hot Water Loop, and Water Resources Recovery.

Dynasonics DXNP-ABS-NN - Ultrasonic Flow Meter



Designed for systems engineers to quickly troubleshoot problems and verify performance during system commissioning and diagnostics. Allows measurement of flows throughout the plumbing infrastructure without intrusion.

Use for Spot measurements of Chiller, Chilled Water Loop, Condenser Water Loop, Hot Water Loop, and Water Resources Recovery.

GE Panametrics PT900 - Ultrasonic Flow Meter



Clamp-on flow meter that attaches fixture transducers onto the outside of a pipe to measure flow within the pipe without cutting into the pipe or shutting down the process. A useful spot measuring flow meter for applications such as wastewater, cooling and heating water, and other liquids.

Use for Spot measurements of Chiller, Chilled Water Loop, Condenser Water Loop, Hot Water Loop, and Water Resources Recovery.

Telaire 7001 - CO₂ Handheld Sensor



Handheld CO2 and temperature sensor that can be used as an external sensor with compatible data loggers and data nodes. Compatible with the U12 series data loggers (like the U12-006) and any ZW series data node (like ZW-005).

Use for Spot measurements of HVAC.

RELATIVE HUMIDITY



Extech EN300 - Environmental Meter

A handheld meter that measures humidity, temperature, air velocity, light, and sound.

Use for Spot measurements of HVAC and Lighting.



Extech AN25 - Heat Index Anemometer

Pocket-sized heat index anemometer that measures air velocity, heat index, relative humidity, ambient temperature, dew point, wet bulb, and windchill.

Use for Spot measurements of Building Envelope, HVAC, and Electric Motors and Drives.



TSI VelosiCalc 9545 - Hot Wire Anemometer

Simultaneously measures and logs data for several ventilation parameters using a single probe with multiple sensors. It measures velocity, temperature, and relative humidity, and calculates flow, wet bulb, and dew point temperature.

Use for Spot measurements of HVAC.



Extech MO290 - Moisture Meter

Allows you to measure humidity and air temperature with its built-in probe, as well as non-contact infrared temperature. Includes a pinless moisture sensor which allows you to monitor moisture in wood and other building materials with no damage to the surface.

Use for Spot measurements of Building Envelope and HVAC.

AIR FLOW



Alnor EBT721 - Balometer

Multipurpose electronic air balancing instrument primarily used for efficiently taking direct air volume readings at diffusers and grilles. Features a detachable micromanometer which can be used with optional probes for increased flexibility in multiple measurement applications.

Use for Spot measurements of HVAC and Building Envelope.



Extech AN25 - Heat Index Anemometer

Pocket-sized heat index anemometer that measures air velocity, heat index, relative humidity, ambient temperature, dew point, wet bulb, and windchill.

Use for Spot measurements of Building Envelope, HVAC, and Electric Motors and Drives.



Alnor AVM430 - Hot Wire Anemometer

Measures air flow, air velocity, and temperature. Ideal applications include system performance, commissioning, plant maintenance, critical environment certification, and duct traverses.

Use for Spot measurements of HVAC.



TSI VelosiCalc 9545 - Hot Wire Anemometer

Simultaneously measures and logs data for several ventilation parameters using a single probe with multiple sensors. It measures velocity, temperature, and relative humidity, and calculates flow, wet bulb, and dew point temperature.

Use for Spot measurements of HVAC.



Extech AN100 - Vane Thermo Anemometer

Measures air velocity, air flow (volume), and temperature. This anemometer is great for taking spot measurements at supply vents.

Use for Spot measurements of HVAC.



Extech SDL310 - Vane Thermo Anemometer

Displays and stores air velocity and temperature readings from the built-in thermometer or from an externally connected type K or J thermocouple temperature probe. Data is stored on an SD card for transfer to a computer.

Use for Spot and Long Term measurements of HVAC.



Amprobe MAN30 - Differential Pressure Manometer

With a measuring range up to 30 PSI, this manometer is perfect for applications such as valves, control sensors in a pneumatic control environment, HVAC/R pressure levels, and medical pressure systems.

Use for Spot measurements of HVAC.



Extech EN300 - Environmental Meter

A handheld meter that measures humidity, temperature, air velocity, light, and sound.

Use for Spot measurements of HVAC and Lighting.



Extech HD755 - Differential Pressure Manometer

Measures gauge and differential pressure in the +/-0.500 PSI range. Offers 11 units of measurement and has differential input that uses convenient quick-disconnect fittings.

Use for Spot measurements of HVAC and Building Envelope.

PRESSURE



Extech HD755 - Differential Pressure Manometer

Measures gauge and differential pressure in the +/-0.500 PSI range. Offers 11 units of measurement and has differential input that uses convenient quick-disconnect fittings.

Use for Spot measurements of HVAC and Building Envelope.



Amprobe MAN30 - Differential Pressure Manometer

With a measuring range up to 30 PSI, this manometer is perfect for applications such as valves, control sensors in a pneumatic control environment, HVAC/R pressure levels, and medical pressure systems.

Use for Spot measurements of HVAC.



Alnor EBT721 - Balometer

Multipurpose electronic air balancing instrument primarily used for efficiently taking direct air volume readings at diffusers and grilles. Features a detachable micromanometer which can be used with optional probes for increased flexibility in multiple measurement applications.

Use for Spot measurements of HVAC and Building Envelope.



TSI 5825 - MicroManometer

A hand-held manometer that allows you to easily make HVAC pressure measurements, this manometer can be used with pitot probes to measure duct velocity.

Use for Spot measurements of HVAC.

ENERGY



Fluke 87V/E2 - Digital Multimeter

Provides electricians with accurate voltage and frequency measurements on adjustable speed motor drives and other electrically noisy equipment.

Use for Spot measurements of Electric Motors and Drives, HVAC and Lighting.



Onset T-VER-E50B2 - Power & Energy Meter

A power management and energy efficiency meter that integrates with loggers such as the UX120-017, enabling you to measure power factor (PF), reactive power (VAR), watt hours (Wh), and more. Compatible with CTs from 5 to 32,000 A (333mV output) for current measurements.

Use for Spot and Long Term measurements of Electric Motors and Drives, HVAC, and Lighting.



Fluke 345 - Power Quality Clamp Meter

Combines the functions of a clamp meter, oscilloscope, data logger, and digital power meter in one device. Measures power factor (PF), reactive power (VAR), watt hours (Wh), kilowatt hours (kWh), AC current, AC voltage, and more.

Use for Spot and Long Term measurements of Electric Motors and Drives, HVAC, and Lighting.



Fluke 381 - True RMS AC/DC Clamp Meter

Measures true RMS AC voltage and current for accurate measurements on non-linear signals.

Use for Spot and Long Term measurements of Electric Motors and Drives, HVAC, and Lighting.



Fluke T5-600 - Voltage/Continuity/Current Tester

Check voltage, continuity, and current with one compact tool. OpenJaw current lets you check current up to 100A without breaking the circuit. Test probes are customized for national electrical standards.

Use for Spot measurements of Lighting and Electric Motors and Drives.



Kill a Watt E503-4400 - Electricity Monitor

This usage monitor helps reduce your electricity bill. Simply connect appliances to the meter and it will assess how efficient they really are by monitoring voltage, line frequency, and power factor.

Use for Spot and Long Term measurements of Plug Loads.



PQ2071 - Power Quality Clamp Meter

Combines the functions of a clamp meter, oscilloscope, data logger, and digital power meter in one device. Measures power factor (PF), reactive power (VAR), watt hours (Wh), kilowatt hours (kWh), AC current, AC voltage, and more.

Use for Spot and Long Term measurements of Electric Motors and Drives, HVAC, and Lighting.

LIGHT



Amprobe LM100 - Light Meter

Measures visible light from fluorescent, metal halide, high-pressure sodium or incandescent sources with a measuring range of up to 20,000 foot-candles. Data hold to freeze reading on the digital display.

Use for Spot measurements of Lighting.



Amprobe LM631-A - Light Meter

Measures visible light from fluorescent, metal halide, high-pressure sodium or incandescent sources with a measuring range of up to 20,000 foot-candles. Built-in CIE spectrum curve for accurate human eye response.

Use for Spot measurements of Lighting.



Extech LT300 - Light Meter

Measures visible light from fluorescent, metal halide, high-pressure sodium or incandescent sources with a measuring range of up to 20,000 foot-candles. Utilizes precision photo diode and color correction filter.

Use for Spot measurements of Lighting.



Konica Minolta CL200A - Handheld Chroma Meter

Measures the luminance, color temperature, chromacity, dominant wavelength, and excitation purity of LED, organic LED (OLED), and other forms of organic electroluminescent (EL). Measuring range of up to 20,000 footcandles. Built-in CIE spectrum curve for accurate human eye response.

Use for Spot measurements of Lighting.



SunEye 210 - Shade Measurement Tool

Shade measurement tool for solar site assessment that measures annual sun path, monthly solar access, and obstruction elevation by determining the shading patterns of a particular site. Uses a digital camera with calibrated fisheye lens, electronic inclinometer, and compass.

Use for Spot measurements of Lighting.



Extech EN300 - Environmental Meter

A handheld meter that measures humidity, temperature, air velocity, light, and sound.

Use for Spot measurements of HVAC and Lighting.



Fluke 1000FLT - Fluorescent Light Tester

Allows you to perform five essential lighting tests: lamp, ballast, bulb, non-contact voltage, and pin continuity. Used to assist with maintenance on fluorescent light bulbs by diagnosing ballasts and testing bulbs.

Use for Spot measurements of Lighting.



GTI MiniMatcher MM4e - Light Box

Used to simulate typical lighting conditions that replicate different environments. The light box contains a luminaire that produces different types of lighting to simulate the environments.

Use for Spot measurements of Lighting.

OPERATION



Extech 461995 - Laser Photo/Contact Tachometer

Measures the RPM value of motors and conveyor belts with a laser pointer and reflective tape. Provides wide RPM (photo and contact) and linear surface speed (contact) measurements. Memory/readings button holds the last reading for 5 minutes and recalls min/max readings.

Use for Spot measurements of Electric Motors and Drives.



Fluke 805 - Vibration Meter

Used for mechanical troubleshooting the overall vibration and bearing conditions of mechanical equipment. Measures overall vibration (10 Hz to 1,000 Hz) for acceleration, velocity, and displacement units for a wide variety of machines.

Use for Spot measurements of Electric Motors and Drives.



Fluke 810 - Vibration Tester

Uses a step-by-step process to report on machine faults the first time measurements are taken, without prior measurement history. Features on-board identification and location of the most common mechanical faults (bearings, misalignment, unbalance, looseness).

Use for Spot measurements of Electric Motors and Drives.

INDOOR AIR QUALITY



Telaire 7001 - CO₂ Handheld Sensor

Handheld CO₂ and temperature sensor that can be used as an external sensor with compatible data loggers and data nodes. Compatible with the U12 series data loggers (like the U12-006) and any ZW series data node (like ZW-005).

Use for Spot measurements of HVAC.



Extech CO10 - Carbon Monoxide Meter

Used for ambient air safety checks on residential appliances, HVAC service on furnaces and hot water heaters, home inspections, and inspections of industrial environments where CO may accumulate.

Use for Spot measurements of HVAC and Boiler.



Fluke 985 - Particle Counter

Used for determining airborne particle concentrations to immediately respond to occupant complaints, or as part of a comprehensive preventive maintenance program. Six channels and a particle-size measurement range of 0.3 – 10.0 µm.

Use for Spot measurements of HVAC.

WATER FLOW

Dynasonics DTFXE-FC-AKEC-NA - Ultrasonic Flow Meter



Clamp-on meter that can be fitted to the outside of pipes and does not contact internal liquid. No need to shut down processes for installation or maintenance. An ideal meter for water, wastewater, and the chemical industry.

Use for Spot measurements of Chiller, Chilled Water Loop, Condenser Water Loop, Hot Water Loop, and Water Resources Recovery.

Dynasonics DXNP-ABS-NN - Ultrasonic Flow Meter



Designed for systems engineers to quickly troubleshoot problems and verify performance during system commissioning and diagnostics. Allows measurement of flows throughout the plumbing infrastructure without intrusion.

Use for Spot measurements of Chiller, Chilled Water Loop, Condenser Water Loop, Hot Water Loop, and Water Resources Recovery.

GE Panametrics PT900 - Ultrasonic Flow Meter



Clamp-on flow meter that attaches fixture transducers onto the outside of a pipe to measure flow within the pipe without cutting into the pipe or shutting down the process. A useful spot measuring flow meter for applications such as wastewater, cooling and heating water, and other liquids.

Use for Spot measurements of Chiller, Chilled Water Loop, Condenser Water Loop, Hot Water Loop, and Water Resources Recovery.

FLUID LEAK



Fluke RLD2 - Refrigerant Leak Detector

Compact easy-to-use UV flashlight uncovers refrigerant leaks instantly. Use the UV light to find the leakage area, then use the laser pointer to pinpoint the exact leak location.

Use for Spot measurements of HVAC, Cooling Tower, and Chiller.

SOUND



Extech SDL600 - Sound Level Meter

Data logging sound level meter which records data on a SD card in Excel format for easy transfer to a PC for analysis. Meets ANSI and IEC standards for accuracy with a 30-130dB measurement range.

Use for Spot and Long Term measurements of HVAC.



CTRL Systems UL101 - Ultrasonic Leak Detector

Used for condition monitoring and predictive maintenance. The UL101 is capable of accurately interpreting sounds created by under-lubrication, over-lubrication, and early signs of wear. Distance of reception is up to 150 ft (50 m) and threshold of sensitivity is 0 dB SPL.

Use for Spot measurements of HVAC, Electric Motors and Drives, Boiler, and Service Hot Water.



Extech EN300 - Environmental Meter

A handheld meter that measures humidity, temperature, air velocity, light, and sound.

Use for Spot measurements of HVAC and Lighting.

COMBUSTION



Bacharach PCA3 - Portable Combustion Analyzer

Enables fast and accurate measurement for sampling of light industrial, institutional, commercial, and residential furnaces, boilers, and appliances. Evaluates the safety of operating conditions and determines combustion efficiency via emission testing.

Use for Spot measurements of Boiler and HVAC.



EZ40 - Combustible Gas Detector

Detects the presence of combustible gas and nuisance vapors. The 16 inch flexible gooseneck provides easy access in difficult to reach locations. The EZ40 detects 17 different types of gases including natural gas, methane, ethane, propane, acetone, ammonia, jet fuel, gasoline and lacquer thinner.

Use for Spot measurements of Boiler and HVAC.

MOISTURE



Extech MO290 - Moisture Meter

Allows you to measure humidity and air temperature with its built-in probe, as well as non-contact infrared temperature. Includes a pinless moisture sensor which allows you to monitor moisture in wood and other building materials with no damage to the surface.

Use for Spot measurements of Building Envelope and HVAC.



HQ2200 - Portable Meter (pH, Conductivity, TDS, Salinity, Oxygen)

A portable multimeter is mainly used for water quality professionals who want to perform electrochemical analysis for field and lab environments.

Use for Spot measurements of water resources recovery.

Extech BR250 - Video Borescope Inspection Tool



A 9mm video borescope/wireless inspection camera which allows you to capture videos and images that can be viewed on the wireless LCD monitor or transferred to your PC via a micro SD card or USB cable. Used to inspect walls for mold, inside ducts and behind motors or compressors in an HVAC system, and to inspect wiring and water pipe locations.

Use for Spot measurements of Building Envelope, HVAC, Lighting, and Electric Motors and Drives.



LOGGERS

Equipment with high internal memory storage capacity, used primarily for long term measurements. Loggers can be either standalone or work with [external sensors](#).

TEMPERATURE

HOBO H22-001 - Energy Logger



Designed to be deployed with a variety of pre-defined plug-and-play smart sensors including: T-MAG-SCT-600, S-FS-CVIA, Tel 7001, T-WNB-3Y-208, S-LIB-M003, ADAPT-SER-USB.

Use for Long Term measurements of HVAC, Electric Motors and Drives, Lighting, Cooling Tower, Chiller, and Boiler.

HOBO MX1101 - Temperature/RH Data Logger



Measures and records temperature and relative humidity. Using Bluetooth technology you can transmit your data wirelessly to your mobile device using the HOBOMobile app. Stores up to 84,000 measurements.

Use for Long Term measurements of HVAC.

HOBO MX1102 - CO₂/Temp/RH Data Logger



Measures and records carbon dioxide, temperature, and relative humidity. Uses Bluetooth to transmit data wirelessly to a mobile device using the HOBOMobile app.

Use for Long Term measurements of HVAC.

HOBO MX2301 - Temperature/RH Outdoor Data Logger



Weatherproof data logger that measures and records temperature and relative humidity in outdoor environments. Using Bluetooth technology you can transmit data wirelessly to a mobile device using the HOBOMobile app.

Use for Long Term measurements of HVAC, Chiller, Boiler, and Cooling Tower.



HOBO U10-001 - Temperature Data Logger

Standalone temperature data logger mainly used for indoor temperature monitoring. Its small size and large memory capacity make it a great multipurpose logger.

Use for Long Term measurements of HVAC.



HOBO U10-003 - Temperature/RH Data Logger

Standalone temperature and relative humidity data logger for indoor monitoring. Its small size and large memory capacity makes it a great multipurpose logger.

Use for Long Term measurements of HVAC.



HOBO U12-006 - 4-Channel External Data Logger

Four channel logger that records external sensors data. Supports temperature, AC current, AC voltage, air velocity, carbon dioxide, compressed air flow, DC current, DC voltage, gauge pressure, watts, and volatile organic compound measurements.

Use for Long Term measurements of HVAC, Plug Loads, Lighting, and Electric Motors and Drives.



HOBO U12-011 - Temperature/RH Data Logger

Standalone temperature and relative humidity data logger with 12-bit resolution that provides high-accuracy measurements.

Use for Long Term measurements of HVAC.



HOBO U12-012 - Temp/RH/Light External Data Logger

Standalone temperature, relative humidity, and light intensity logger that accepts a wide range of energy and environmental external sensors.

Use for Long Term measurements of HVAC, Lighting, and Electric Motors and Drives.



HOBO UA-002-64 - Pendant Data Logger

A miniature data logger that can record temperature and relative light levels. With a waterproof casing, this product is designed for indoor, outdoor, and underwater deployment.

Use for Long Term measurements of HVAC and Lighting.



HOBO UTBI-001 - Water Temperature Data Logger

A 3x4 cm data logger that measures temperature. Designed for outdoor and underwater environments and waterproof to 1,000 ft.

Use for Long Term measurements of HVAC.



HOBO UX120-006M - 4-Channel Analog Data Logger

An analog logger that supports up to four external sensors, allowing you to measure temperature, current, voltage, air flow, pressure, and more in a single logger.

Use for Long Term measurements of HVAC, Lighting, Plug Loads, Chiller, Cooling Tower, and Electric Motors and Drives.



HOBO UX120-014M - 4-Channel Thermocouple Data Logger

A four channel data logger for measuring and recording temperature. Accepts up to four thermocouple J, K, T, E, R, S, B or N type probes.

Use for Long Term measurements of HVAC, Hot Water Loop, Chilled Water Loop, Chiller, Cooling Tower, Condenser, and Boiler.

RELATIVE HUMIDITY



HOBO MX1101 - Temperature/RH Data Logger

Measures and records temperature and relative humidity. Using Bluetooth technology you can transmit your data wirelessly to your mobile device using the HOBOMobile app. Stores up to 84,000 measurements.

Use for Long Term measurements of HVAC.



HOBO MX1102 - CO₂/Temp/RH Data Logger

Measures and records carbon dioxide, temperature, and relative humidity. Uses Bluetooth to transmit data wirelessly to a mobile device using the HOBOMobile app.

Use for Long Term measurements of HVAC.



HOBO MX2301 - Temperature/RH Outdoor Data Logger

Weatherproof data logger that measures and records temperature and relative humidity in outdoor environments. Using Bluetooth technology you can transmit data wirelessly to a mobile device using the HOBOMobile app.

Use for Long Term measurements of HVAC, Chiller, Boiler, and Cooling Tower.



HOBO U10-003 - Temperature/RH Data Logger

Standalone temperature and relative humidity data logger for indoor monitoring. Its small size and large memory capacity makes it a great multipurpose logger.

Use for Long Term measurements of HVAC.



HOBO U12-011 - Temperature/RH Data Logger

Standalone temperature and relative humidity data logger with 12-bit resolution that provides high-accuracy measurements.

Use for Long Term measurements of HVAC.



HOBO U12-012 - Temp/RH/Light External Data Logger

Standalone temperature, relative humidity, and light intensity logger that accepts a wide range of energy and environmental external sensors.

Use for Long Term measurements of HVAC, Lighting, and Electric Motors and Drives.



HOBO H22-001 - Energy Logger

Designed to be deployed with a variety of pre-defined plug-and-play smart sensors including: T-MAG-SCT-600, S-FS-CVIA, Tel 7001, T-WNB-3Y-208, S-LIB-M003, ADAPT-SER-USB.

Use for Long Term measurements of HVAC, Electric Motors and Drives, Lighting, Cooling Tower, Chiller, and Boiler.

AIR FLOW

HOBO UX120-006M - 4-Channel Analog Data Logger



An analog logger that supports up to four external sensors, allowing you to measure temperature, current, voltage, air flow, pressure, and more in a single logger.

Use for Long Term measurements of HVAC, Lighting, Plug Loads, Chiller, Cooling Tower, and Electric Motors and Drives.

HOBO U12-006 - 4-Channel External Data Logger



Four channel logger that records external sensors data. Supports temperature, AC current, AC voltage, air velocity, carbon dioxide, compressed air flow, DC current, DC voltage, gauge pressure, watts, and volatile organic compound measurements.

Use for Long Term measurements of HVAC, Plug Loads, Lighting, and Electric Motors and Drives.

HOBO H22-001 - Energy Logger



Designed to be deployed with a variety of pre-defined plug-and-play smart sensors including: T-MAG-SCT-600, S-FS-CVIA, Tel 7001, T-WNB-3Y-208, S-LIB-M003, ADAPT-SER-USB.

Use for Long Term measurements of HVAC, Electric Motors and Drives, Lighting, Cooling Tower, Chiller, and Boiler.

PRESSURE

HOBO UX120-006M - 4-Channel Analog Data Logger



An analog logger that supports up to four external sensors, allowing you to measure temperature, current, voltage, air flow, pressure, and more in a single logger.

Use for Long Term measurements of HVAC, Lighting, Plug Loads, Chiller, Cooling Tower, and Electric Motors and Drives.

HOBO U12-006 - 4-Channel External Data Logger



Four channel logger that records external sensors data. Supports temperature, AC current, AC voltage, air velocity, carbon dioxide, compressed air flow, DC current, DC voltage, gauge pressure, watts, and volatile organic compound measurements.

Use for Long Term measurements of HVAC, Plug Loads, Lighting, and Electric Motors and Drives.

ENERGY



Dranetz HDPQ Xplorer - Power Quality Analyzer

Capable of simultaneously capturing thousands of parameters, such as low-medium-high frequency transients through peak, waveshape, RMS difference, and adaptive high-speed sampling, as well as power measurements to clearly characterize harmonics, non-sinusoidal, and unbalanced systems.

Use for Long Term measurements of HVAC, Electric Motors and Drives, Lighting, and Boiler.



Energy Platform EP1 - Power Demand Analyzer

Provides advanced demand, energy, harmonics, and power analysis, as well as display of phasors, scope mode, meters, harmonic spectrums, and sag/swell detection.

Use for Long Term measurements of HVAC, Electric Motors and Drives, Lighting, Cooling Tower, Chiller, and Boiler.



DENT ElitePro EXC-U-N-C - Energy Logger

Capable of analyzing electrical consumption data derived from voltage and current inputs. Uses direct connections to each phase of the voltage and various interchangeable CT options such as split-core current transformers.

Use for Long Term measurements of HVAC, Electric Motors and Drives, Lighting, Cooling Tower, Chiller, and Boiler.



Fluke 1730 - Energy Logger

Offers a three-phase electrical energy logger used for performing energy surveys and load studies. Measures voltage, current, power, and power factor. Data can be downloaded from the logger onto a USB stick.

Use for Long Term measurements of HVAC, Electric Motors and Drives, Lighting, Cooling Tower, Chiller, and Boiler.



Fluke 435 Series II - Power Quality Analyzer

Measures voltage, current, frequency, power, power consumption, unbalance, flicker, and harmonics in three- and single-phase power distribution systems.

Use for Long Term measurements of HVAC, Electric Motors and Drives, Lighting, Cooling Tower, Chiller and Boiler.



HOBO H22-001 - Energy Logger

Designed to be deployed with a variety of pre-defined plug-and-play smart sensors including: T-MAG-SCT-600, S-FS-CVIA, Tel 7001, T-WNB-3Y-208, S-LIB-M003, ADAPT-SER-USB.

Use for Long Term measurements of HVAC, Electric Motors and Drives, Lighting, Cooling Tower, Chiller, and Boiler.



ThinkEco TE1010 - The Modlet

Fits into a standard 120V/15A outlet and offers two sockets, each of which has individual minute-level power measurement.

Use for Long Term measurements of Plug Loads.



HOBO UX120-017 - 4-Channel Pulse Input Logger

Pulse logger mainly used with the [T-VER-E50B2 energy meter](#), voltage cables, and current sensors. Measures and records pulse signals, events, state changes, and run-times. Pulse input range: 0 to 24VDC.

Use for Long Term measurements of HVAC, Lighting, Plug Loads and Electric Motors and Drives.



HOBO UX120-018 - Plug Load Data Logger

Measures and records the power and energy consumption of 120V plug loads from office equipment, vending machines, and other devices.

Use for Long Term measurements of Plug Loads.



HOBO U12-006 - 4-Channel External Data Logger

Four channel logger that records external sensors data. Supports temperature, AC current, AC voltage, air velocity, carbon dioxide, compressed air flow, DC current, DC voltage, gauge pressure, watts, and volatile organic compound measurements.

Use for Long Term measurements of HVAC, Plug Loads, Lighting, and Electric Motors and Drives.



HOBO U12-012 - Temp/RH/Light External Data Logger

Standalone temperature, relative humidity, and light intensity logger that accepts a wide range of energy and environmental external sensors.

Use for Long Term measurements of HVAC, Lighting, and Electric Motors and Drives.



HOBO UX120-006M - 4-Channel Analog Data Logger

An analog logger that supports up to four external sensors, allowing you to measure temperature, current, voltage, air flow, pressure, and more in a single logger.

Use for Long Term measurements of HVAC, Lighting, Plug Loads, Chiller, Cooling Tower, and Electric Motors and Drives.

LIGHT



HOBO U9-002 - Light On/Off Data Logger

Records light on and off status. The light threshold is adjustable from 10 to 100 lumens/m2.

Use for Long Term measurements of Lighting.



HOBO UX90-002 - Light On/Off Data Logger

Standalone data logger that monitors indoor light changes with an internal sensor and records light on and off status.

Use for Long Term measurements of Lighting.



HOBO UX90-006m - Occupancy/Light Data Logger

Standalone data logger that monitors room occupancy and indoor light changes to identify occupancy patterns and determine energy usage.

Use for Long Term measurements of Lighting.



HOBO UA-002-64 - Pendant Data Logger

A miniature data logger that can record temperature and relative light levels. With a waterproof casing, this product is designed for indoor, outdoor, and underwater deployment.

Use for Long Term measurements of HVAC and Lighting.



HOBO U12-012 - Temp/RH/Light External Data Logger

Standalone temperature, relative humidity, and light intensity logger that accepts a wide range of energy and environmental external sensors.

Use for Long Term measurements of HVAC, Lighting, and Electric Motors and Drives.

OCCUPANCY



HOBO MX1102 - CO₂/Temp/RH Data Logger

Measures and records carbon dioxide, temperature, and relative humidity. Uses Bluetooth to transmit data wirelessly to a mobile device using the HOBOMobile app.

Use for Long Term measurements of HVAC.



HOBO UX90-002 - Light On/Off Data Logger

Standalone data logger that monitors indoor light changes with an internal sensor and records light on and off status.

Use for Long Term measurements of Lighting.



HOBO UX90-006m - Occupancy/Light Data Logger

Standalone data logger that monitors room occupancy and indoor light changes to identify occupancy patterns and determine energy usage.

Use for Long Term measurements of Lighting.



HOBO UA-002-64 - Pendant Data Logger

A miniature data logger that can record temperature and relative light levels. With a waterproof casing, this product is designed for indoor, outdoor, and underwater deployment.

Use for Long Term measurements of HVAC and Lighting.



HOBO U12-012 - Temp/RH/Light External Data Logger

Standalone temperature, relative humidity, and light intensity logger that accepts a wide range of energy and environmental external sensors.

Use for Long Term measurements of HVAC, Lighting, and Electric Motors and Drives.

OPERATION



HOBO U9-001 - State Change Data Logger

State data logger that monitors state changes using an internal magnetic read switch. Mainly used for monitoring contact closures.

Use for Long Term measurements of Electric Motors and Drives.



HOBO U9-004 - Motor On/Off Data Logger

Standalone data logger that records motor on and off status using the AC field generated by the motor, making it ideal for equipment monitoring.

Use for Long Term measurements of Electric Motors and Drives, Cooling Tower, HVAC, and Boiler.



HOBO UX90-004 - Motor On/Off Data Logger

Standalone data logger that monitors a motor's on and off conditions using an internal AC magnetic field sensor.

Use for Long Term measurements of Electric Motors and Drives, Cooling Tower, HVAC, and Boiler.

INDOOR AIR QUALITY



HOBO MX1102 - CO₂/Temp/RH Data Logger

Measures and records carbon dioxide, temperature, and relative humidity. Uses Bluetooth to transmit data wirelessly to a mobile device using the HOBOMobile app.

Use for Long Term measurements of HVAC.

FORCE



HOBO UA-004-64 - G-Force Data Logger

Measures three-dimensional motion, acceleration and angular displacement in one, two or three axes. Waterproof housing for wet or underwater use.

Use for Long Term measurements of HVAC.



SENSORS

Devices that measure physical input from the environment, used primarily for long term measurements. Sensors work with [loggers](#) and [receivers](#) to view and record measurements.

TEMPERATURE

Onset TC6-T - Thermocouple Sensor



A six-foot beaded thermocouple probe. This probe is Teflon-insulated and responsive over a range of -200 to 100°C (-328 to 212°F) with an initial accuracy of +/- 1.5°C (+/-2.7°F).

Use for Long Term measurements of Hot Water Loop, Chilled Water Loop, Cooling Tower, Condenser Water Loop, Boiler, and Chiller.

HOBO TMCX-HD - Temperature Sensor



Measures temperature in air, water or soil with the 6.1m (20 ft) and 15.2m (50 ft) temperature sensor. Designed to be used with HOBO U-Series external-channel data loggers and ZW series wireless data nodes.

Use for Long Term measurements of Hot Water Loop, Chilled Water Loop, Cooling Tower, Condenser Water Loop, Boiler and Chiller.

AIR FLOW



HOBO S-WSA-M003 - Wind Speed & Direction Sensor

This smart sensor reports average wind speed and highest three-second gust for each logging interval. The starting threshold is 1 m/s (2.2 mph) and the sensor survives through 120 mph wind. This model comes with a 3m cable. Used with the RX3000.

Use for Long Term measurements of HVAC and Data Center.



HOBO T-DCI-F900-L-P - Air Velocity Sensor

Designed to measure the velocity of airflow. Functions as an adapter which allows for more flexible measurement-taking. Used with UX120-006M or U12-006 loggers.

Use for Long Term measurements of HVAC.



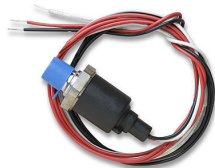
HOBO T-VER-PXU-L - Differential Air Pressure Transducer

Utilizes a highly accurate and stable sensor, which is a microprocessor profiled for improved accuracy and reliability. Used with the UX120-006M or U12-006.

Use for Long Term measurements of HVAC and Building Envelope.

PRESSURE

HOBO T-ASH-G2-500 - Gauge Pressure Sensor



Provides precision pressure measurements in compressed air systems, water or other compatible gases and fluids with an accuracy of +/- 1% FS from -20°C to 85°C (-4°F to 185°F). Use with the UX120-006M or U12-006 loggers.

Use for Long Term measurements of Chiller, Condenser Water Loop, Chilled Water Loop, and Cooling Tower.

HOBO T-VER-PXU-L - Differential Air Pressure Transducer



Utilizes a highly accurate and stable sensor, which is a microprocessor profiled for improved accuracy and reliability. Used with the UX120-006M or U12-006.

Use for Long Term measurements of HVAC and Building Envelope.

TDWLB-DL0500034 - Gauge Pressure Sensor (Bluetooth)



Provides precision pressure measurements in compressed air systems, water or other compatible gases and fluids with an accuracy of +/- 1% FS from -40°C to 85°C (-40°F to 185°F). Uses a mobile app called “Pressure Pro App” to connect via bluetooth to sensor and download data.

Use for Long Term measurements of Chiller, Condenser Water Loop, Chilled Water Loop, and Cooling Tower.



ConLab 0-300 - AC Voltage Transmitter

A self-powered transformer for monitoring sine wave, single-phase AC voltage. Can be plugged directly into the external input jacks of U12 and ZW loggers.

Use for Long Term measurements of Electric Motors and Drives.



CTV-A - 2-20 Amp Split Core AC Current Transformer

Responsive over the range of 2-20 amps AC. Mounted around a current carrying wire to measure AC amperage. Provides a 0 to .333 V AC output proportional to current flow. Used with U12 or UX120-series loggers.

Use for Long Term measurements of HVAC, Electric Motors and Drives, Lighting and Plug Loads.



CTV-B - 5-50 Amp Split Core AC Current Transformer

Responsive over the range of 5-50 amps AC. Mounted around a current carrying wire to measure AC amperage. Provides a 0 to .333 V AC output proportional to current flow. Used with U12 or UX120-series loggers.

Use for Long Term measurements of HVAC, Electric Motors and Drives, Lighting, and Plug Loads.



CTV-C - 10-100 Amp Split Core AC Current Transformer

Responsive over the range of 10-100 amps AC. Mounted around a current carrying wire to measure AC amperage. Provides a 0 to .333 V AC output proportional to current flow. Used with U12 or UX120-series loggers.

Use for Long Term measurements of HVAC, Electric Motors and Drives, Lighting, and Plug Loads.

CTV-D - 20-200 Amp Split Core AC Current Transformer



Responsive over the range of 20-200 amps AC. Mounted around a current carrying wire to measure AC amperage. Provides a 0 to .333 V AC output proportional to current flow. Used with U12 or UX120-series loggers.

Use for Long Term measurements of HVAC, Electric Motors and Drives, Lighting, and Plug Loads.

CTV-E - 60-600 Amp Split Core AC Current Transformer



Responsive over the range of 60-600 amps AC. Mounted around a current carrying wire to measure AC amperage. Provides a 0 to .333 V AC output proportional to current flow. Used with U12 or UX120-series loggers.

Use for Long Term measurements of HVAC, Electric Motors and Drives, Lighting, and Plug Loads.

T-ACT-0750-20 - 0-20 Amp Split Core AC Current Transformer



Responsive over the range of 0-20 amps AC. Mounted around a current carrying wire to measure AC amperage. Provides a 0 to .333 V AC output proportional to current flow. Window opening of 0.75 inch. Used with T-VER-E50B2, H22-001 series loggers.

Use for Long Term measurements of HVAC, Electric Motors and Drives, Lighting, and Plug Loads.

T-ACT-0750-50 - 0-50 Amp Split Core AC Current Transformer



Responsive over the range of 0-50 amps AC. Mounted around a current carrying wire to measure AC amperage. Window opening of 0.75 inch. Provides a 0 to .333 V AC output proportional to current flow. Used with T-VER-E50B2, H22-001, U12 or UX120-series loggers.

Use for Long Term measurements of HVAC, Electric Motors and Drives, Lighting, and Plug Loads.



T-ACT-0750-100 - 0-100 Amp Split Core AC Current Transformer

Responsive over the range of 0-100 amps AC. Mounted around a current carrying wire to measure AC amperage. Provides a 0 to .333 V AC output proportional to current flow. Window opening of 0.75 inch. Used with T-VER-E50B2, H22-001 series loggers.

Use for Long Term measurements of HVAC, Electric Motors and Drives, Lighting, and Plug Loads.



T-ACT-0750-250 - 250 Amp Split Core AC Current Transformer

Responsive over the range of 0-250 amps AC. Mounted around a current carrying wire to measure AC amperage. Provides a 0 to .333 V AC output proportional to current flow. Window opening of 0.75 inch. Used with T-VER-E50B2, H22-001 series loggers.

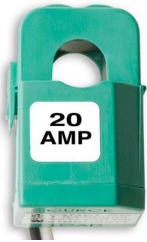
Use for Long Term measurements of HVAC, Electric Motors and Drives, Lighting, and Plug Loads.



T-MAG-0400-05 - 0-5 Amp mini Split Core AC Current Transformer

Responsive over the range of 0-5 amps AC. Mounted around a current carrying wire to measure AC amperage. Provides a 0 to .333 V AC output proportional to current flow. Window opening of 0.40 inch. Used with T-VER-E50B2, H22-001 series loggers.

Use for Long Term measurements of HVAC, Electric Motors and Drives, Lighting and Plug Loads.



T-MAG-0400-20 - 2-20 Amp mini Split Core AC Current Transformer

Responsive over the range of 0-5 amps AC. Mounted around a current carrying wire to measure AC amperage. Provides a 0 to .333 V AC output proportional to current flow. Window opening of 0.40 inch. Used with T-VER-E50B2, H22-001, U12 or UX120-series loggers.

Use for Long Term measurements of HVAC, Electric Motors and Drives, Lighting, and Plug Loads.



T-MAG-0400-50 - 5-50 Amp mini Split Core AC Current Transformer

Responsive over the range of 5-50 amps AC. Mounted around a current carrying wire to measure AC amperage. Provides a 0 to .333 V AC output proportional to current flow. Window opening of 0.40 inch. Used with T-VER-E50B2, H22-001, U12 or UX120-series loggers.

Use for Long Term measurements of HVAC, Electric Motors and Drives, Lighting, and Plug Loads.



T-MAG-0400-75 - 7.5-75 Amp mini Split Core AC Current Transformer

Responsive over the range of 7.5-75 amps AC. Mounted around a current carrying wire to measure AC amperage. Provides a 0 to .333 V AC output proportional to current flow. Window opening of 0.40 inch. Used with T-VER-E50B2, H22-001 series loggers.

Use for Long Term measurements of HVAC, Electric Motors and Drives, Lighting, and Plug Loads.

T-MAG-SCT-600 - 60-600 Amp Split Core AC Current Transformer



Responsive over the range of 60-600 amps AC. Mounted around a current carrying wire to measure AC amperage. Provides a 0 to .333 V AC output proportional to current flow. Window opening of 2 inches. Used with T-VER-E50B2, H22-001 series loggers.

Use for Long Term measurements of HVAC, Electric Motors and Drives, Lighting, and Plug Loads.

T-WNB-3Y-208-P - kWh Transducer



Measures energy and power, and is placed in an electric service panel. The Wye-connection works with Magnelab AC Current Transformers and a Pulse Input Adapter to provide True RMS kilowatt hours of energy used, even for loads with non-sinusoidal waveforms. Used with U12 or UX120-series loggers.

Use for Long Term measurements of HVAC, Electric Motors and Drives, Lighting, and Plug Loads.

LIGHT

Onset S-LIB-M003 - Silicon Pyranometer Sensor



Light sensor with a measurement range of 0 to 1280 W/m² over a spectral range of 300 to 1100 nm. Reports the average light intensity over a user-set logging interval with a minimum of 1 second. Although the azimuth error is only $\pm 2\%$ error at 45° from vertical, a light sensor bracket and light sensor level are recommended. Used with RX3000.

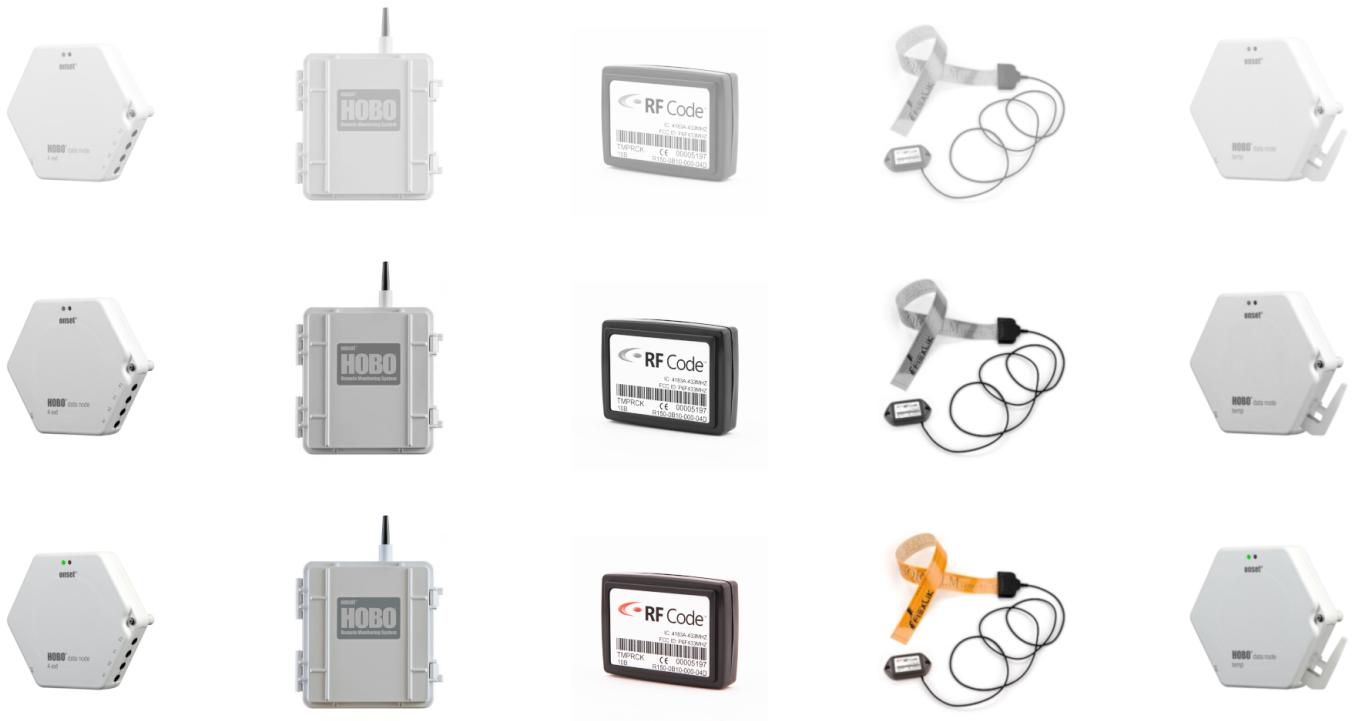
Use for Long Term measurements of Renewable Energy.



Brinno TLC200 Pro - Time Lapse Camera

Built with a HDR (high dynamic range) image sensor for creating high-quality time lapse videos. With a battery life of 40 days of photos at a five-minute interval and a programmable timer for powering on and recording.

Use for Long Term measurements of HVAC, Boiler and Lighting.



SENSOR NODES

Devices that record environmental measurements, transmit data to [receivers](#) and/or receive data from other devices typically as part of a network.

TEMPERATURE



RF Code R150-5B10 - Temperature Tag

Battery-powered radio frequency transmitter that monitors temperature-sensitive equipment. The R150 is designed for use in a variety of environmental monitoring applications. Uses the M250 receiver.

Use for Long Term measurements of HVAC and Data Center.



HOBO RX3000 - Remote Monitoring Station

Offers a ten-channel data logging system for a broad range of energy and weather monitoring applications. It can be easily configured with a wide range of plug-and-play smart sensors like the S-WSA-M003 and S-LIB-M003.

Use for Long Term measurements of Renewable Energy and HVAC.



HOBO ZW-001 - Temperature Data Node

A single-channel wireless temperature data node that measures temperature, it can wirelessly transmit the data in real time using a mesh network of devices. Works with ZW-RCVR and ZW-Router.

Use for Long Term measurements of HVAC.



HOBO ZW-003 - Temp/RH Data Node

A two-channel wireless data node that measures temperature and relative humidity. It wirelessly transmits the data in real time using a mesh network of devices. Works with ZW-RCVR and ZW-Router.

Use for Long Term measurements of HVAC.



HOBO ZW-005 - Four Channel Data Node

A four-channel wireless data node that uses external sensors to measure data, rather than internal sensors built inside of the device. It supports temperature, AC current/voltage, air velocity, carbon dioxide, compressed air flow, DC current, DC voltage, gauge pressure, kilowatts, and volatile organic compound (VOC) measurements.

Use for Long Term measurements of HVAC.



HOBO ZW-006 - Four Analog Port Data Node

A four-channel wireless data node with four analog ports. It accepts external sensors and wirelessly transmits data in real time using a mesh network of devices. Works with ZW-RCVR and ZW-Router.

Use for Long Term measurements of HVAC.



HOBO ZW-007 - Two External Channel Data Node

A four-channel wireless data node that includes an external temperature/RH sensor probe and two additional analog ports. It wirelessly transmits data in real time using a mesh network of devices. Works with ZW-RCVR and ZW-Router.

Use for Long Term measurements of HVAC.



HOBO ZW-008 - Four External Channel Data Node

A four-channel wireless data node with two analog ports and two pulse input ports. It wirelessly transmits data in real time using a mesh network of devices. Works with ZW-RCVR and ZW-Router.

Use for Long Term measurements of HVAC.

RELATIVE HUMIDITY



HOBO RX3000 - Remote Monitoring Station

Offers a ten-channel data logging system for a broad range of energy and weather monitoring applications. It can be easily configured with a wide range of plug-and-play smart sensors like the S-WSA-M003 and S-LIB-M003.

Use for Long Term measurements of Renewable Energy and HVAC.



HOBO ZW-003 - Temp/RH Data Node

A two-channel wireless data node that measures temperature and relative humidity. It wirelessly transmits the data in real time using a mesh network of devices. Works with ZW-RCVR and ZW-Router.

Use for Long Term measurements of HVAC.

AIR FLOW



HOBO RX3000 - Remote Monitoring Station

Offers a ten-channel data logging system for a broad range of energy and weather monitoring applications. It can be easily configured with a wide range of plug-and-play smart sensors like the S-WSA-M003 and S-LIB-M003.

Use for Long Term measurements of Renewable Energy and HVAC.



HOBO ZW-005 - Four Channel Data Node

A four-channel wireless data node that uses external sensors to measure data, rather than internal sensors built inside of the device. It supports temperature, AC current/voltage, air velocity, carbon dioxide, compressed air flow, DC current, DC voltage, gauge pressure, kilowatts, and volatile organic compound (VOC) measurements.

Use for Long Term measurements of HVAC.



HOBO ZW-006 - Four Analog Port Data Node

A four-channel wireless data node with four analog ports. It accepts external sensors and wirelessly transmits data in real time using a mesh network of devices. Works with ZW-RCVR and ZW-Router.

Use for Long Term measurements of HVAC.



HOBO ZW-008 - Four External Channel Data Node

A four-channel wireless data node with two analog ports and two pulse input ports. It wirelessly transmits data in real time using a mesh network of devices. Works with ZW-RCVR and ZW-Router.

Use for Long Term measurements of HVAC.

PRESSURE

RF Code R160-0010 - Differential Air Pressure Sensor



Monitors and reports the differential air pressure reading between two points (e.g., above vs. below a raised floor or room vs. plenum). Tubing can be routed above/below floors, along walls, plenums or air ducts. Uses the M250 receiver.

Use for Long Term measurements of HVAC and Data Center.

HOBO ZW-005 - Four Channel Data Node



A four-channel wireless data node that uses external sensors to measure data, rather than internal sensors built inside of the device. It supports temperature, AC current/voltage, air velocity, carbon dioxide, compressed air flow, DC current, DC voltage, gauge pressure, kilowatts, and volatile organic compound (VOC) measurements.

Use for Long Term measurements of HVAC.

HOBO ZW-006 - Four Analog Port Data Node



A four-channel wireless data node with four analog ports. It accepts external sensors and wirelessly transmits data in real time using a mesh network of devices. Works with ZW-RCVR and ZW-Router.

Use for Long Term measurements of HVAC.

HOBO ZW-007 - Two External Channel Data Node



A four-channel wireless data node that includes an external temperature/RH sensor probe and two additional analog ports. It wirelessly transmits data in real time using a mesh network of devices. Works with ZW-RCVR and ZW-Router.

Use for Long Term measurements of HVAC.



HOBO ZW-008 - Four External Channel Data Node

A four-channel wireless data node with two analog ports and two pulse input ports. It wirelessly transmits data in real time using a mesh network of devices. Works with ZW-RCVR and ZW-Router.

Use for Long Term measurements of HVAC.



HOBO RX3000 - Remote Monitoring Station

Offers a ten-channel data logging system for a broad range of energy and weather monitoring applications. It can be easily configured with a wide range of plug-and-play smart sensors like the S-WSA-M003 and S-LIB-M003.

Use for Long Term measurements of Renewable Energy and HVAC.



HOBO RX3000 - Remote Monitoring Station

Offers a ten-channel data logging system for a broad range of energy and weather monitoring applications. It can be easily configured with a wide range of plug-and-play smart sensors like the S-WSA-M003 and S-LIB-M003.

Use for Long Term measurements of Renewable Energy and HVAC.



HOBO ZW-005 - Four Channel Data Node

A four-channel wireless data node that uses external sensors to measure data, rather than internal sensors built inside of the device. It supports temperature, AC current/voltage, air velocity, carbon dioxide, compressed air flow, DC current, DC voltage, gauge pressure, kilowatts, and volatile organic compound (VOC) measurements.

Use for Long Term measurements of HVAC.



HOBO ZW-006 - Four Analog Port Data Node

A four-channel wireless data node with four analog ports. It accepts external sensors and wirelessly transmits data in real time using a mesh network of devices. Works with ZW-RCVR and ZW-Router.

Use for Long Term measurements of HVAC.



HOBO ZW-008 - Four External Channel Data Node

A four-channel wireless data node with two analog ports and two pulse input ports. It wirelessly transmits data in real time using a mesh network of devices. Works with ZW-RCVR and ZW-Router.

Use for Long Term measurements of HVAC.

FLUID LEAK



RF Code R135-0B50 - Fluid Detector Tag

Real-time liquid detection sensor for wire-free environmental monitoring. Integrates with RF Code's Sensor Manager and Asset Manager software solutions. Uses the M250 receiver.

Use for Long Term measurements of HVAC and Data Center.



RECEIVERS

Devices that receive, transmit and store measurement data from [sensor nodes](#).

RECEIVERS



BASE-U-4 - Optic USB Base Station

Universal optic USB base station and coupler used to offload data from any hobo data logger with an optic USB interface. This base station is compatible with the following logger series: UA, U20, U22, U23, UTBI, U24 and U26.

Use for Long Term measurements of HVAC.



RF Code M250 - Reader Kit for RF Code Tags

Dual-channel radio receivers tuned to 433.92 MHz. The readers are programmed, calibrated and dedicated to interpreting and reporting the radio frequency messages emitted by RF Code tags.

Use for Long Term measurements of HVAC and Data Center.



HOBO ZW-RCVR - Data Receiver

Serves as the central hub of the wireless data mesh network. It collects and stores data, and operates as a bridge between the network and the computer software. It can also send commands to the node so the data collection methods can be easily adjusted. Works with the ZW-Router, ZW-001, ZW-003, ZW-005, ZW-006, ZW-007, and ZW-008.

Use for Long Term measurements of HVAC.



HOBO ZW-Router - Data Router

Provides connectivity with other wireless network nodes by expanding the reach of the wireless network and transmitting data from the data nodes to the data receiver. Works with ZW-RCVR, ZW-001, ZW-003, ZW-005, ZW-007, and ZW-008.

Use for Long Term measurements of HVAC.



Contact

Felix Rodriguez

Equipment Specialist, CUNY BPL

frodriguez3@ccny.cuny.edu

Marco Ascazubi

Assistant Director, Technology Applications, CUNY BPL

mascazubi@ccny.cuny.edu