

Table of Contents**Centron Environmental Monitoring System**

Centron Environmental Monitor & Access Control System	1-2
Centron Tower Dedicated Environmental Monitor	1-3
e-Centron Environmental Monitor.....	1-4
Enterprise Centron.....	1-5
CentronSQL Software Options	1-6
Software Options	1-7
Virtual Centron	1-8
Satellite Tower	1-9
Automatic Failover Node Protection	1-10
Multiplex Remote Input Panel.....	1-11
Multiplex Remote Input Panel w/24 Volt Internal Power Supply.....	1-12
Multiplex Remote Input Panel w/Data Buffering	1-13
Buffering Remote Panels.....	1-14

Centron Environmental Monitor & Access Control System

Application:

The Centron monitors up to 128 inputs and will keep Readings and Event Data records to satisfy the FDA and other regulatory authorities. The Centron is fully validated and the system's electronic signature meets 21-CFR-11 compliance.

Networkable, the Centron offers instantaneous communications with workstations and modern voice mail quality alarm dial-out.

The Centron uses all Rees Scientific and industry standard hard wired and wireless sensors. View your inputs on multi-level maps of your facility. The annunciator panel displays the real-time status of your inputs on analog and digital meters and bar graphs. Multiple inputs can be viewed simultaneously. The unit can be programmed to automatically print out every four hours, or once a day. Data can be stored using Microsoft SQL or Oracle as the database engine. Advanced customized reports can be generated using Crystal Reports.



Specifications:

Dimensions: 14" H x 16" W x 3.5" D

- Expandable up to 128 inputs.
- 32 bit architecture.
- 12 bit A/D converter.
- Modern voice mail quality alarm dial out.
- Infinite buffering of data collection on the Centron hard drive.
- Optional Color LCD touch screen.
- Smart Touch screen keyboard appears when needed, and moves dialog boxes, and itself, so it is always visible and always usable.
- Works with hard wired and/or wireless sensors.
- Standard 4 hr battery backup; opt. 24 hr battery.
- Software is available in English, French, German and Spanish.

Type	Order #
Centron, expandable to 128 inputs	C.P-CEN-W
License for additional 16 inputs on Centron Systems	C.I-LICENSE-16
Centron optional 24 hour battery backup	CEN3BAT-24HRBB
Centron optional Touch Screen, connects to base system	C.P-TSCRN15
Wall Mount Engine to Run Independent Touch-screen Workstation	C.P-TSCRN-ENGN
16 input MPX panel for Centron, 115 volts	MPX-RMT-RJ45

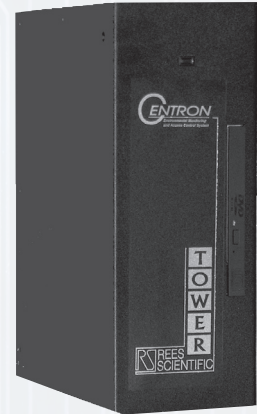
Centron Tower Dedicated Environmental Monitor

Application:

A desktop version of the Centron, the Centron Tower unit is small, self-contained and is designed to fit on your desktop or lab bench. You can plug in a standard monitor, keyboard, and mouse. An optional switcher will allow users to share the monitor, keyboard, and mouse used by their standard desktop PC.

The Centron Tower monitors up to 128 inputs and will keep Readings and Event Data records to satisfy the FDA and other regulatory authorities. The Centron Tower is fully validated and the system's electronic signature meets 21-CFR-11 compliance.

The Centron Tower uses all Rees Scientific and industry standard hard wired and wireless sensors. View your inputs on a single level map of your facility. The annunciator panel displays the real-time status of your inputs on analog and digital meters and bar graphs. Multiple inputs can be viewed simultaneously. The unit can be programmed to automatically print out every four hours, or once a day. Data can be stored using Microsoft SQL or Oracle as the database engine. Advanced customized reports can be generated using Crystal Reports.



Specifications:

Dimensions: 12" H x 7.75" D x 4.5" W

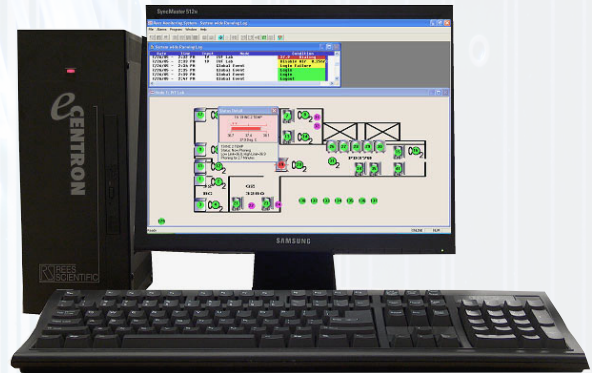
- Expandable up to 128 inputs.
- 32 bit architecture.
- 12 bit A/D converter.
- Modern voice mail quality alarm dial out.
- Infinite buffering of data collection on the Centron hard drive.
- Works with hard wired and/or wireless sensors.
- Standard 4 hr battery backup (approximate); opt. 24 hr battery.
- Software is available in English, French, German and Spanish.
- Requires monitor, keyboard, and mouse.
- Optional switcher allows you to share your desktop PC's existing monitor, keyboard, and mouse.

Type	Order #
Centron, expandable to 128 inputs	C.P-CEN-T
License for additional 16 inputs on Centron Systems	C.I-LICENSE-16
Centron optional 24 hour battery backup	CEN3BAT-24HRBB
16 input MPX panel for Centron, 115 volts	MPX-RMT-RJ45
Optional Switcher for PC accessories	SWITCHER
Optional monitor, keyboard, and mouse package	MONITOR-PKG

e-Centron Environmental Monitor

Application:

The e-Centron Environmental Monitor offers a convenient turnkey solution. The e-Centron is licensed for up to 16 Inputs, includes the Centron Software and allows an unlimited number of users to access the system from any off the shelf browsers. The system also includes an Internal CDRW and Autobackup Software, 4 Hour Battery Back-up (approximate), Monitor, Keyboard, Mouse and Printer. Additional input licenses can be purchased separately in Groups of 16.



Specifications:

- Expandable up to 128 inputs
- 32 bit architecture.
- 12 bit A/D converter.
- Modern voice mail quality alarm dial out.
- Infinite buffering of data collection on the Centron hard drive.
- Works with hard wired and/or wireless sensors.
- Standard 4 hr battery backup (approximate); opt. 24 hr. battery.
- Includes 17" LCD Flat Screen Monitor, Keyboard, Mouse and Laser Printer.
- SQL based software is available in English, French, German and Spanish.

Dimensions: 12" H x 7.75" D x 4.5" W

Type	Order #
e-Centron Environmental Monitor	C.E-CEN
License for additional 16 inputs on Centron Systems	C.I-LICENSE-16
e-Satellite Environmental Monitor	C.E-SAT

Enterprise Centron

Application:

The Enterprise Centron environmental monitor offers a powerful and reliable centralized solution. With RAID Dual Level Data Redundancy, true multi-user simultaneous networking for up to 30 users, and access to the system via a web browser, the Enterprise Centron includes all of the features of the original Centron in a hardened server platform. Capable of housing up to 4 nodes, the system includes 1 node license that is authorized for up to 16 inputs with the ability to monitor up to 128 inputs. Bundled with 1 telephone dialer the Enterprise Centron can accept up to 4 individual dialers providing simultaneous alarm notification for system events.



The Enterprise Centron is designed for use with V1, V2 wireless components and MPX-NETBUFF wired remote panels. Existing MPX-RMT panels will require a V2-MPX or V2-MPX-NET upgrade.



Specifications:

- Expandable up to 512 inputs
- Server Operating System
- Standalone Tower or Rackmountable
- RAID-1 Data redundancy
- Database and Interface compatible with existing Centron Nodes/ No learning curve
- Software is available in English, French, German and Spanish.

Dimensions: 17.94" H x 8.27" W x 24.01" D

Type	Order #
Enterprise Centron Environmental Monitor	C.CEN-ENT
The Rack Mounted Enterprise Centron	C.CEN-ENT-RACK
License for additional 16 inputs on Centron Systems	C.I-LICENSE-16
16 input MPX panel for Centron , 115 volts	MPX-NET-RJ45
Optional monitor, keyboard, and mouse package	MONITOR-PKG
Enterprise Centron Software	C.CEN-ENT-SW

CentronSQL Software Options

CENTRONSQL	Centron Software includes powerful SQL or Oracle Server based software. Centron SQL introduces 30 new enhancements over the previous version which includes Advanced and Custom reports utilizing Crystal Reports, 50 simultaneous users per node, independent logging rates for each input, new maximum logging rate of 1 minute, scalable map and graphical input status report. Also includes extended 21CFR11 Security Module with 21CFR11 Review and Approvals. For new Centron systems.
CENTSQL-ADD	Centron SQL software upgrade license for each additional Centron Node. Requires initial purchase of CENTSQL. For new Centron systems.
CENTSQL-UPGADD	Centron SQL software upgrade license for each additional Centron Node. Requires initial purchase of CENTSQL-UPGRD and previous purchase of Centron Software.
CENTSQL-UPGRD	Powerful SQL or Oracle Server based software upgrade for Centron. Centron SQL introduces 30 new enhancements over the previous version which includes: Advanced and Custom reports utilizing Crystal Reports, 50 simultaneous per node, independent logging rates for each input, new maximum logging rate of 1 minute, scalable map and graphical input status report. Also includes extended 21CFR11 Security Module with 21CFR11 Review and Approvals. Requires previous purchase of Centron
C.P-SQL-SRV10	Complete SQL database server for Centron system. Includes SQL Server with 2003 Server OS, ten MS-SQL user licenses, Rees Web Server software and auto backup software.
C.P-SQL-SRVR5	Complete SQL database server for Centron system. Includes SQL Server with 2003 Server OS, five MS-SQL user licenses, web server software and auto backup software.
C.P-ORC-SRVR10	Complete Oracle database server for Centron system. Includes Oracle Server with 2003 Server OS, ten Oracle user licenses, web server software and auto backup software.
C.P-ORC-SRVR5	Complete Oracle database server for Centron system. Includes Oracle Server with 2003 Server OS, five MS-SQL user licenses, web server software and auto backup software.

Software Options

The Centron monitoring system operates under the Windows® environment. Special firmware (proms) and software (disks) are required for the node and computer respectively.

CENTRON - SOFT	Centron software with Single User License. V.1 10
CENTRON - ADD	Centron additional node license.

The Centron / Series II Monitoring System offers the following software upgrade options.

C.P-CAL-3	TCP/IP Open System Software - 3 user license. Allows up to 3 users to access system simultaneously.
C.P-CAL-10	TCP/IP Open System Software - 10 user license. Allows up to 10 users to access system simultaneously.
C.P-CAL-ADD10	TCP/IP Open System Software upgrade from 3 to 10 user license. Allows 4 to 10 users to access system simultaneously. Requires Initial Purchase of TCP-3.
C.P-CAL-ADD10	TCP/IP Open System Software License Upgrade. Allows an additional 10 users to access system simultaneously. Requires Initial Purchase of TCP-10.
VAL-KIT-CEN	Validation kit for Centron
C.WIN-MAP	Map/Floorplan to enhance Windows® Software
VOICE TAGS-1	Custom recorded alarm voice messages for Centron.
VOICE TAGS-2	20 additional custom recorded alarm voice messages (after initial purchase of VOICE TAGS-1) for Centron.
CEN-WINXP-OS	Windows® XP Upgrade of Centron or Satellite Operating System

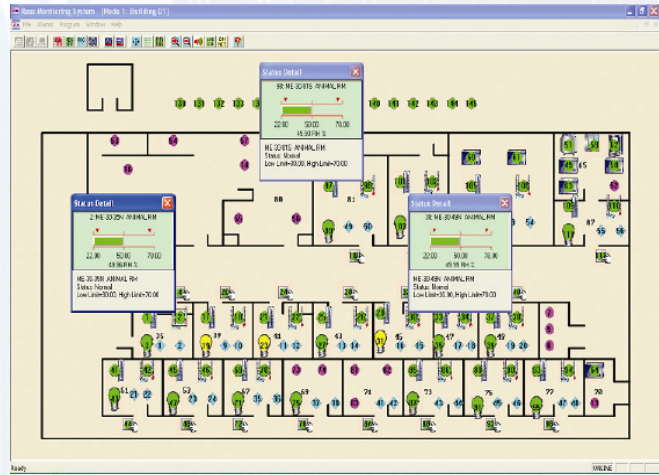
Virtual Centron

Application:

The Virtual Centron environmental monitor offers a convenient turnkey software solution that allows an unlimited number of users to access the system via web browser software from PCs or Smart Phones. Licensed for up to 16 inputs, additional input licenses can be purchased separately in groups of 16.

The Virtual Centron includes our powerful CentronSQL software which offers an industry standard SQL database, customizable Crystal Reports, independent logging rates for each new input, maximum logging rate of one minute, scalable map and graphical input status report, and an extended 21 CFR 11 security module with 21 CFR 11 reviews and approvals.

Virtual Centron requires installation into customer supplied equipment running Windows 2000 or XP.



Main Features

- Turnkey Software Solution
- Includes CentronSQL
- Email and local alarms
- Requires customer supplied equipment running Windows 2000, XP or Server 2003

Type	Order #
Virtual Centron Software	C.V-CEN
Virtual Centron Server	C.V.S-CEN

Satellite Tower

Application:

The Satellite Tower will allow you to monitor up to eight inputs and will work with your existing Centron software; the Satellite will simply be an additional node on your system. The Satellite Tower has all the capabilities of the Centron system and will operate over your existing TCP/IP WAN, allowing you to access information from multiple sites.

You have real-time readings of each unit at each site, as well as alarm notification. You also have the ability to print out reports directly at the main facility.



Specifications:

Dimensions: 12" H x 7.75" D x 4.5" W

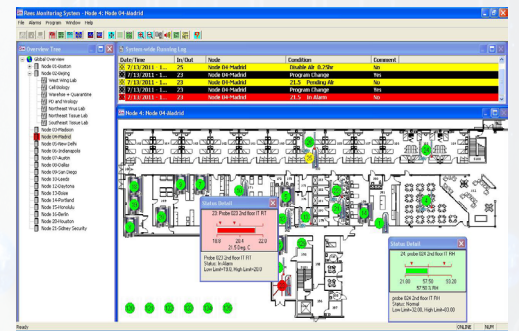
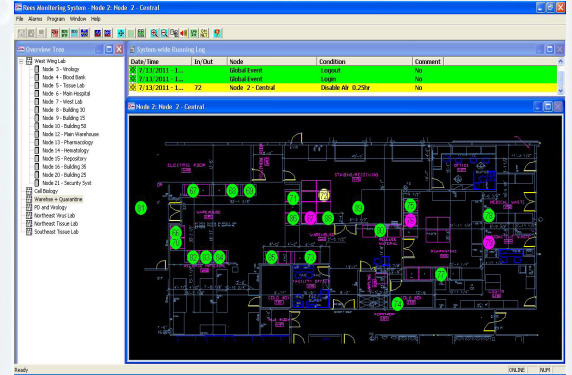
- The Satellite is a fully validated 12 bit system.
- It works with all Rees Scientific pluggable sensors.
- It has off-site dialing capabilities.
- It operates over your existing TCP/IP network.
- Completely stand-alone w/4 hour battery backup (approximate).

Type	Order #
Satellite Tower	C.P-SAT-T

Automatic Failover Node Protection

Application:

You now have the ability to protect your entire Centron Monitoring System against hardware failure through the Automatic Failover Node. The Automatic Failover Node continuously monitors your main node and will take over if a problem occurs. This protects against failure of hard drives, power supplies, phone lines, dialers, network connection failure, etc. In addition, it can protect against failure of inter-site communications. If a remote site or sites fall out of contact with the main site, the Automatic Failover Node(s) at the remote site(s) will take over and provide full data logging and alarm handling functions.



Requirements & Specifications:

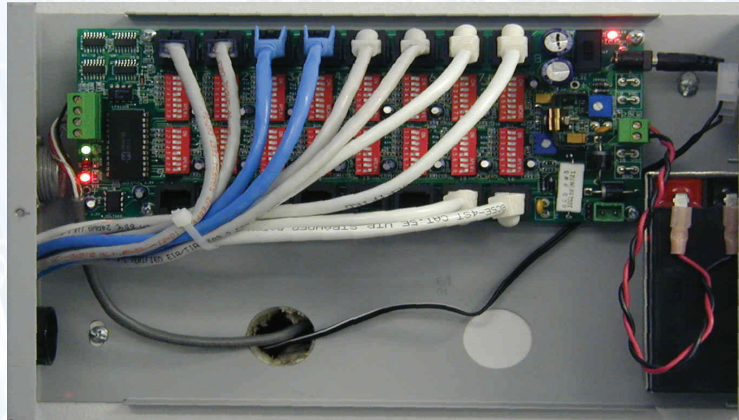
- Software Build number 1016 and above.
- Must virtualize your main node. All main node inputs **MUST** be network connected. Directly wired connections must be replaced with network equivalents.
 - *V2-CRD (USB Coordinator) is replaced with V2-NET
 - *RF-900 (Serial Transceiver) is replaced with RF-900-BUF
 - *MPX-RMT-Panel is replaced with the V2-MPX-NET
- Main Node can be any Centron node type.
- Backup Node is a software node that can run in any Windows® computer running Windows 2000, XP, 2003 Server, or above.
- Up to 4 backup nodes can run in a single machine.
- Multiple backup nodes can be specified for each Main Node to allow for multiple sites.
- Each Backup Node should have a phone line for alarm dial-out.

Type	Order #
Automatic Failover Node Protection	.C-Failover

Multiplex-Remote Input Panel

Application:

The MPX remote panel is used with the Centron in order to monitor additional inputs. These panels communicate through supervised cables to the main unit. Each panel enables you to add 16 additional inputs to your system.



Specifications:

Dimensions: 7.375" H x 12" W x 3" D

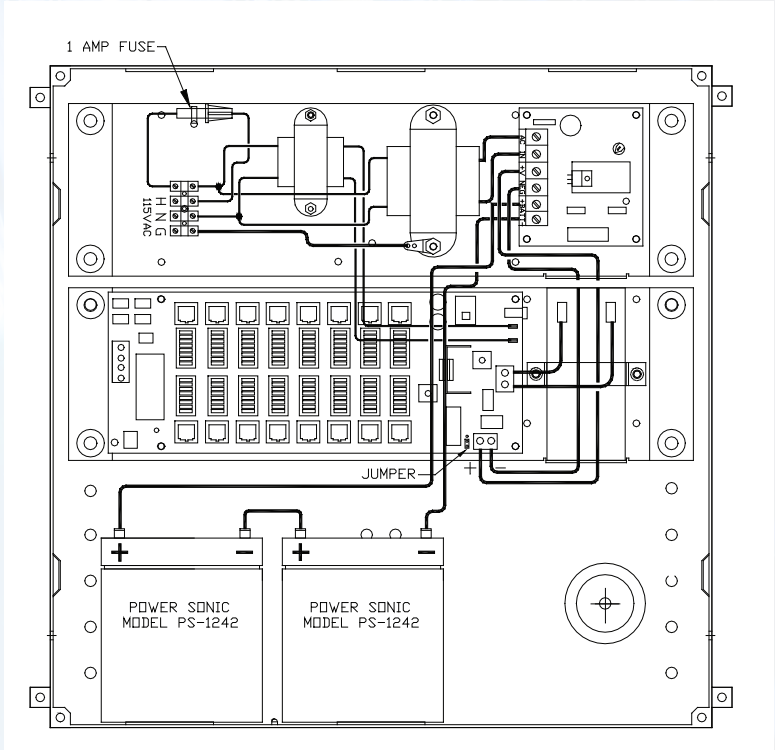
- Connection of MPX panel to main unit (node) requires 3 conductor shielded cable, up to 1 mile long.
- 120V AC Wall Transformer
- Use standard CAT-5, CAT-6, CAT-6e cabling between the MPX panel and sensors.
- Battery back-up: Built-in float charged gel cell system; lasts for more than 24 hours with standard Rees temperature probes.
- Inputs are surge and RFI protected.
- Cable is connected to the Centron Tower with a DIN type connector.

Type	Order #
16 input Multiplex Remote Panel	MPX-RMT-RJ45

MPX Remote Input Panel w/24 Volt Internal Power Supply

Application:

The MPX-RMT-RJ24 consists of an RJ45 connector based MPX Remote Panel with an integrated 24 Volt DC, 1 Amp, battery backed up power supply. Each panel enables you to add 16 additional inputs to your system. The MPX-RMT-RJ24 is required when it is necessary to provide battery backed up 24-volt DC power to sensors or other devices that require more voltage or current than the standard MPX Panel can provide.



Specifications: H W
Dimensions: 14.38" x 14.38" (365.25mm x 365.25mm)

- Connection of MPX panel to main unit (node) requires 3 conductor shielded cable, up to 1 mile long.
- 120V AC Wall Transformer
- Use standard CAT-5, CAT-6, CAT-6e cabling between the MPX panel and sensors.
- Battery back-up: Built-in float charged gel cell system; lasts for more than 24 hours with standard Rees temperature probes.
- Inputs are surge and RFI protected.
- Cable is connected to the Centron Tower with a DIN type connector.

Type	Order#
16 input Multiplex Remote Panel w/24 Volt Internal Power Supply	MPX-RMT-RJ24

Multiplex-Remote Input Panel with Data Buffering

Application:

Network connected input management panel with data buffering. This base module includes a metal enclosure, a 4 hour battery backup (approximate), TCP/IP network interface, and connection for the RS485 network used to communicate between modules. Inputs are connected by adding 4 input modules that connect to this RS485 network. The base enclosure has space for 4 MPX-INP series modules, thus allowing 16 inputs in one convenient enclosure. Panel does not include input modules, which must be specified separately depending on input type. The unit stores readings locally if the network or node goes offline, and can store data on 96 points logging every 5 minutes for 4.4 days. Fewer points and/or lower logging rate will extend the number of days. The MPX-NETBUF is expandable up to 96 total inputs, in increments of 16, using the MPX-NETBUF-EX.



NOTE: Device is compatible only with CentronSQL Software.

NOTE: Loop powered 4-20 mA sensors will require a HUM-BAT-BACK to supply 24 volt power. Network connection is required.

16 Input expansion module for the MPX-NETBUF. This unit is a metal enclosure that is connected to the MPX-NETBUF via the RS485 network that is supported by the MPX-NETBUF system. The enclosure will hold up to 4 of the MPX-INP series of devices to connect input sensors of various types. This panel requires connection to an MPX-NETBUF with enough space on it to accommodate 16 additional sensors. The unit is fully powered by the battery backup unit built into the MPX-NETBUF.

NOTE: Device is compatible only with CentronSQL Software.

NOTE: Loop powered 4-20 mA sensors will require a HUM-BAT-BACK to supply 24 volt power.

Type	Order #
Network connected input management panel with data buffering	MPX-NETBUF
16 input expansion panel for MPX-NETBUF. Requires up to 4 MPX-INP modules for sensor connections	MPX-NETBUF-EXP

Buffering Remote Panels

Order#	Application:	Specifications:
MPX-NET-RJ45	Network connected MPX remote panel with 7 day 15 minute buffering. 16 Input Expansion Panel with RJ45 Connectors (can handle a total of 1000 mA sensor load when using HUM-BAT-BACK). (NOTE: Requires Centron-SQL Build 1014 or higher.)	<ul style="list-style-type: none"> Connects to existing LAN/WAN Completely wired Eliminates the need for long home run wiring pulls Ability to place the V.2 net on any IP connected network Buffers up to 7 days worth of data at 15 minutes intervals in case of network outages Battery back up time of approximately 4 hours * Available with 24 volt power for powered sensors (MPX-NET-RJ-24)
V2-MPX-NET	Connects any standard MPX remote panel to a Centron via TCP/IP. This module can be field installed and connected to any existing Rees Scientific MPX remote panel. Provides 7 day buffer at 15 minute intervals. Provides remote panel battery charge monitoring. (NOTE: Requires CentronSQL Build 1014 or higher.)	<ul style="list-style-type: none"> Connects to existing LAN/WAN Completely wired Eliminates the need for long home run wiring pulls Ability to place the V2-NET on any IP connected network Buffers up to 7 days worth of data at 15 minutes intervals in case of network outages Battery back up time of approximately 4 hours *
V2-MPX	Connects any standard MPX remote panel to a V2 wireless system via its V2 Direct Sequence Spread Spectrum radio. This module can be field installed and connected to any existing Rees Scientific MPX remote panel of any version. Provides 7 day buffer at 15 minute intervals. (NOTE: Requires CentronSQL Build 1014 or higher.)	<ul style="list-style-type: none"> Wireless Connection to V2-NET Wirelessly connects multiple remote panels to one V2-NET Eliminates the need for long home run wiring pulls Ability to place the V2-NET anywhere Buffers up to 7 days worth of data at 15 minute intervals in case of network outages Battery backed up to collect readings for up to 24 hours*

* Battery backup times will vary