VERTIV™

Liebert®

Universal Monitor

Monitoring, Control And
Remote Communications
For Critical Applications

Monitoring and alarm capabilities designed to maximize the uptime of your critical systems

For mission critical operations where downtime is not an option, Liebert® has the solution for local and remote monitoring.

Liebert's Universal Monitor is an all-purpose simple to use monitoring panel. Just connect up to 8 digital inputs, 8 digital outputs and 4 analog inputs — the Universal Monitor will provide critical monitoring information at your facility or offsite. It has the versatility to provide high availability monitoring while also performing control strategies. Liebert has designed the system with the user in mind by minimizing the set-up and configuration requirements.

Designed to operate as an independent stand-alone unit for a wide range of facility support components, the Universal Monitor can also be connected to Liebert's SiteScan® Web enterprise monitoring system.

Designed For Stand-Alone Monitoring and Remote Notification

Factory settings allow for monitoring and alarming out of the box. An on-board modem is included as a standard feature to provide remote monitoring and control while minimizing configuration and installation requirements. It also features a built-in LCD user interface, making the panel self contained and accessible without additional hardware and software.

The Liebert Universal Monitor is ideal for monitoring equipment in many types of facilities including manned or unmanned:

- Computer rooms
- Process control areas
- Telecom switch rooms
- Remote communications shelters
- Communications closets
- Equipment rooms

Universal Monitor System Features

Inputs And Outputs
8 digital inputs, 8 digital outputs, 4 analog inputs (4-20mA) and 2 common alarm outputs.

Maximum Monitoring Versatility
Allows custom programming for specific applications and numerous types of equipment.

Remote Paging Capability
Internal modem allows for alarm notification of up to four alphanumeric pagers.

Alarm and Trend History
Alarm, event and trend logs with time and date stamp permit diagnostics and information retention for review of occurrences at a later time.

Built-In Back-Up Power
Operational reliability and alarm notification is assured by use of internal battery back-up.

Easy Start-Up and Operation
User interface via LCD or RS232 connection will perform all set-up, configuration and monitoring without additional software.

Simple Adjustment
Set points, programming and pager information can be entered via the keypad display, modem or RS232 user interface.

Efficient Setup of Multiple Units
The system has the ability to back-up and upload a configuration file.

Local Alarm
Notification of personnel is facilitated with an on-board audible alarm.

Protection Against Memory Loss For Maximum Reliability
Configuration data and operating program are permanently stored in non-volatile electrically erasable programmable read only memory (EEPROM).
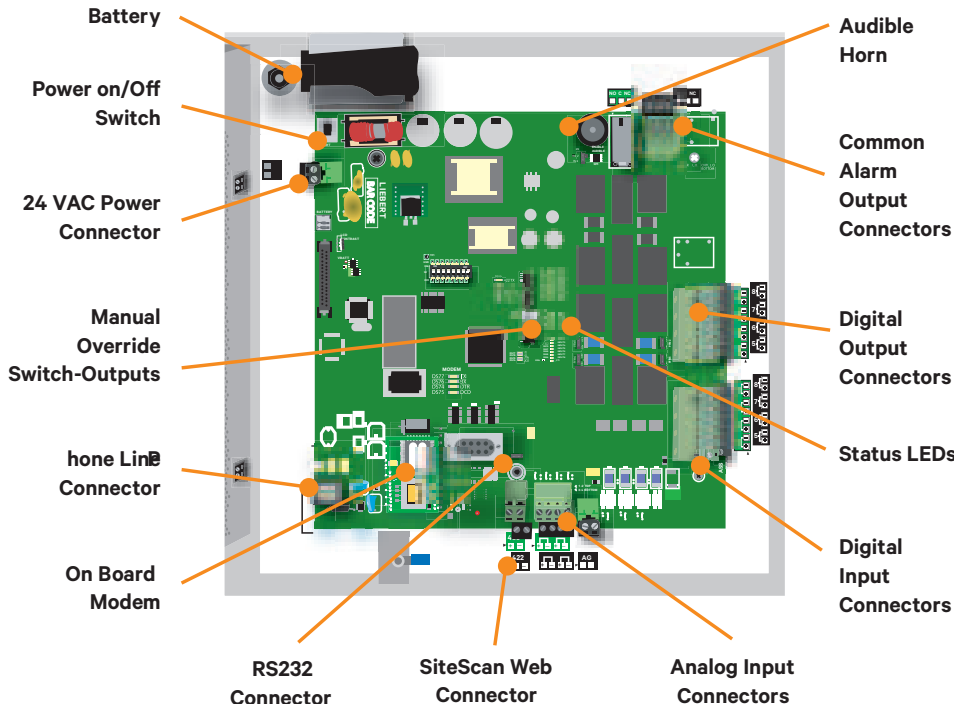
Visual Indicators
Each digital input, digital output, communications interface and panel operation has an LED for status indication.

Power Flexibility
The panel is powered by 24 VAC. Two different Transformer Modules are available: 115 VAC and 230 VAC.

The Universal Monitor incorporates a built-in user interface featuring a liquid crystal display (LCD) panel and keypad which provide a readout of operating conditions including alarms. This password protected display provides complete monitoring and configuration of the unit, allowing the Universal Monitor to operate as a completely stand-alone system.

TW420 - Temperature Wall Mount transmitter, provides temperature input.

THW420 - Temperature & Humidity Wall Mount transmitter, provides both temperature and humidity input.

Battery

Power on/Off Switch

24 VAC Power Connector

Manual Override Switch-Outputs

Phone Line Connector

On Board Modem

RS232 Connector

SiteScan Web Connector

Analog Input Connectors

Audible Horn

Common Alarm Output Connectors

Digital Output Connectors

Status LEDs

Digital Input Connectors

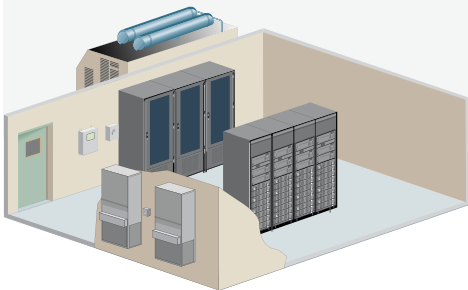## Keeping You Connected — And In Control

The Universal Monitor is designed to work with a wide range of equipment and systems found in critical computing, communications and industrial process facilities.

The Flexibility To Be Used In A Variety Of Applications

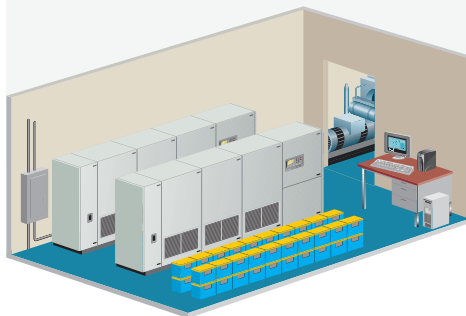When you need to know anytime, anywhere — depend on the Universal Monitor.

Remote Communications Shelter

- DC Plant Major Alarm
- DC Plant Minor Alarm
- Surge Suppressor Alarm
- High Room Temperature Alarm
- Automatic Transfer Switch Position
- Generator Running
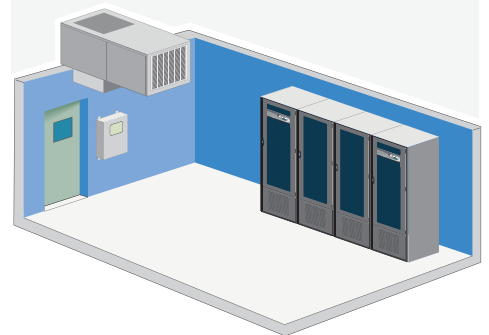- Generator Alarms
- Leak Detected
- Intrusion Alarm

Electrical Room

- UPS Alarms
- UPS On Battery
- UPS On Bypass
- Automatic Transfer Switch Position
- Generator Alarms
- Generator Running
- Battery Room Temperature
- Battery Room Exhaust Fan Failure
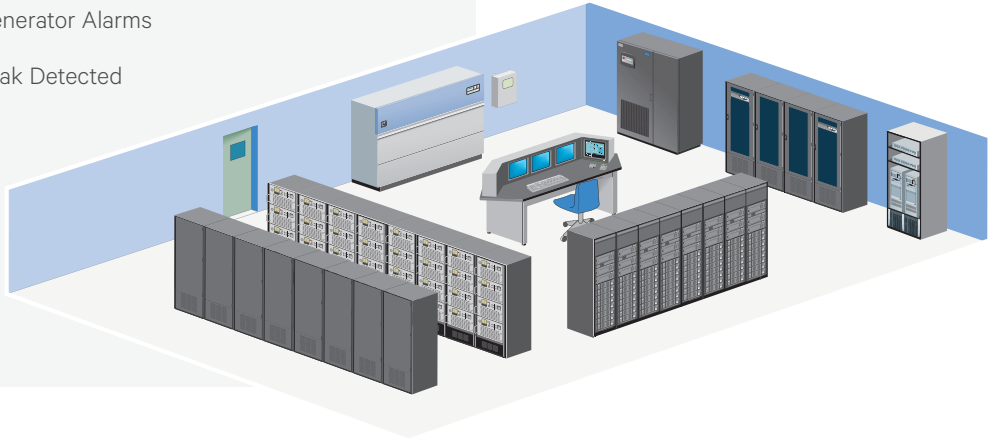- Hydrogen Detector
- Surge Suppressor Alarm

Communications Closet

- Cabinet Internal Temperature
- Cabinet Internal Humidity
- Cabinet Door Ajar
- Leak Detected
- UPS On Battery
- UPS On Bypass
- UPS Alarm

Telecom Switch Room

- DC Plant Major Alarm
- DC Plant Minor Alarm
- DC Current/Voltage
- Surge Suppressor Alarm
- Room Temperature
- Room Humidity
- Automatic Transfer Switch Position

- Generator Running
- Generator Alarms
- Leak Detected

Process Control Area

- Cabinet Internal Temperature
- Cabinet Internal Humidity
- Cabinet Door Ajar
- Room Ambient Temperature
- Room Ambient Humidity
- Leak Detected

- UPS On Battery
- UPS On Bypass
- UPS Alarm

Computer Room

- Room Temperature #1
- Room Humidity #1
- Room Temperature #2
- Room Humidity #2
- Leak Detected Zone #1
- Leak Detector Fault Zone #1
- UPS On Battery

- UPS On Bypass
- UPS Alarm
- AC Unit Alarm
- AC Unit Fan Failure
- Emergency Power Off (EPO) Activated

Universal Monitor Components And Applications

The Liebert® Universal Monitor comes standard with an enclosure, controller board and liquid crystal display (LCD). Two styles of enclosures, small and large, provide flexibility and expansion to meet application needs.

Applications

Local Alarm Panel — For all analog and digital inputs, alarms are indicated by flashing the LCD and sounding the horn.

Paging — For all analog and digital inputs, alarms can be sent up to four pagers and a remote modem.

Remote Connection — A remote connection to the panel via a modem can be made to access and diagnose all information.

Control Panel — Control strategies can be implemented by configuring any combination of digital outputs to change state based on a change of state by any combination of digital or analog inputs.

SiteScan® Web Enterprise Monitoring System — Provide information or perform control strategies with Liebert's SiteScan Web enterprise monitoring system.
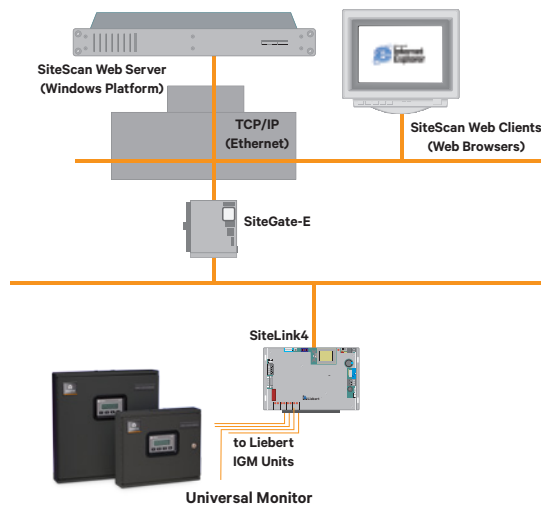
Unit Enclosures

The Universal Monitor enclosures are made of metal to accommodate secure conduit fittings and protect components against environmental debris. Each enclosure is designed to allow space for easy wire routing and terminations. Access slots for communication cables and network wiring are located on both the top and bottom of each enclosure. The depth of the enclosures is 2-3/4", allowing for recess mounting in a wall.

The small enclosure is sized to contain the LCD and controller board. The large enclosure contains the LCD, controller board and transformer module. Both sizes include a key lock on the face of the panel.

SiteScan Web Server (Windows Platform)

TCP/IP (Ethernet)

SiteScan Web Clients (Web Browsers)

SiteGate-E

SiteLink4

to Liebert IGM Units

Universal Monitor

Universal Monitor: Just Part Of An Overall Critical Facility Monitoring Strategy

The Universal Monitor is designed to work seamlessly with Liebert's SiteScan™ Web equipment, a web-based site monitoring and control solution for computer support equipment.

Remote Monitoring Service: Always There, Always Alert

I/O Expansion Module

The Universal Monitor I/O Expansion Module, purchased separately, connects to the Universal Monitor and expands the monitoring capability to 24 digital inputs and 16 digital outputs. The board has light emitting diodes (LEDs) to display the status of monitored output devices, communications ports for connection to the Universal Monitor, power connections and other features necessary to monitor and protect your operation.

Transformer Modules

The large Universal Monitor comes with either of two transformer modules: 115 VAC and 230 VAC.

- The 115 VAC transformer module provides step down power from 115 VAC to 24 VAC, two Class 2 24 VAC power terminations (40 VA for Universal Monitor and 40 VA for auxiliary devices), and one 115 VAC outlet to power accessory devices such as a portable operator's terminal.

- The 230 VAC transformer module provides step- down power from 230 VAC to 24 VAC, two Class 2 24 VAC power terminations. An outlet is not provided on this transformer module.

I/O Expansion Module

Combining the capabilities of the Universal Monitor with Liebert® Global Services' (LGS) Remote Monitoring Service provides you with a seamless rapid-response system. Liebert can monitor your facility around-the-clock from the LGS Customer Response Center (CRC).

When You Need To Know — But Can't Do It Yourself

When a problem is detected, the monitoring system immediately alerts the CRC where each alarm is evaluated and processed. The alarm processor offers instant phone assistance using a customer-defined response and call escalation plan. Liebert will coordinate all service vendors, track the response and solution time for service calls and provide comprehensive reports on alarms and corrective actions.

Monitoring Service Anywhere You Need It 24x7

No matter where your facilities are located, LGS Remote Monitoring can provide continuous oversight of a wide range of critical installations. Should a problem occur, LGS Remote Monitoring will provide the essential link to notify the customer and help evaluate the problem.

Liebert Global Services Service Programs

With our range of service management programs, we can do even more to protect your critical facilities. These include:

- Preventive maintenance scheduling.

- Coordination of upgrades and field changes.

- Periodic preventive maintenance visits to remote, unattended sites.

LGS service management relieves you of critical maintenance responsibilities. We help you keep your facilities operating at top efficiency by allowing you to administer these activities through a single source. You save money because of greater efficiency — and we relieve you of service-related problems.

Transformer Module

Ensuring The High Availability Of Mission-Critical Data And Applications.

Trust Liebert® to deliver power protection and cooling strategies to ensure business continuity through the high constant availability of mission-critical data, applications and communications.

Liebert provides a high-availability strategy of applying adaptive technologies across your network. This expertise comes from decades of protecting the most critical systems in the world from downtime, data loss and equipment damage. Liebert knows how to assess your network availability to ensure your enterprise information and applications will always be available, even as networks and technology change.

Liebert delivers unmatched support and service before, during and after installation. Liebert is the only company in the industry that maintains a national network of technical experts to assess customer needs and recommend appropriate solutions. And, Liebert provides comprehensive support through the largest service organization in the industry. Liebert is backed by the development and technology resources as well as the expertise of Vertiv™, the global leader in powering business-critical systems.

The full range of Liebert solutions helps you create an information infrastructure that delivers the level of network reliability you need— both now and in the future— to keep your business running.

VERTIV.