



Part Number: GRSE2X16

Web-enabled environment monitor for equipment and server rooms with built-in climate sensors, ports for external sensors, LCD display and an alarm horn.

- Accessible through a web browser
- 5 built-in sensors
- 3 analog inputs for 0-5 VDC sensors
- 5 digital sensor ports for Geist external sensors
- LCD display cycles through sensor readings
- Multi level alarms with escalation
- Alarm notifications sent by email and SNMP
- Audible horn triggered by alarm

This self-contained unit continually monitors climate conditions and displays them via an internally-generated web page. These values are graphed for easily seen trends. The LCD display on the front of the unit cycles through the values. If user-defined thresholds are exceeded, alarms can be sent via e-mail, audio alarm, or SNMP trap. Installation is simple using an intuitive web interface. All a user needs is a standard web browser (e.g Firefox, Internet Explorer).

Web Interface

The web interface is the primary way to interact with the GRSE2X16. This interface allows a user to remotely check the status of the environment, view graphs of logged data and see web cam images.

Configuration and administration of the unit is done through the web interface. Access is user name and password protected. SSL encryption can be used for added security through the HTTPS capabilities in browsers.

The firmware running on the GRSE2X16 is updated through the web interface.

Other Access Methods

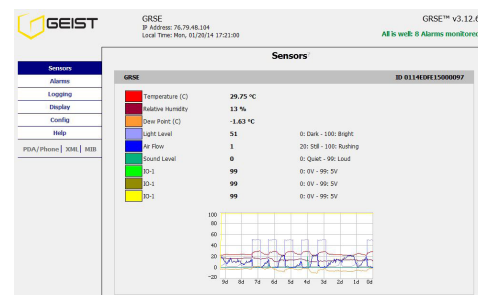
Besides web access, there are a variety of methods that can also be used for obtaining sensor data from the unit, Current sensor readings are available in XML or through SNMP. Logged data can be downloaded as a CSV files.

The device also supports SNMP (v1, v2c, v3). This allows dozens of Network Monitoring programs such as HP OpenView, IP Sentry, MRTG, or What's Up Gold (Ipswitch) to easily add the GRSE2X16 to the list of monitored devices.



The GRSE2X16 occupies a 1-U space and contains a complete set of internal sensors. A variety of remote sensors are easily added.

Web Interface-Sensor Page



A web page displays the current values with graphs showing trends. This unit has a digital remote sensor attached (RTAFH).

Web Interface-Alarms Page



Alarm thresholds are user-configured through the web interface. A sensor can have several thresholds set.

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Other Access Methods cont.

For local viewing, real-time values are continually displayed on a 2 line by 8 character backlit LCD display. The user selects which sensors are shown on the display.

Alarms

A user sets alarm thresholds (up to 200) to define sensor boundaries and indicate what to do if there is a problem. Multiple thresholds are assigned to a sensor for alarm escalation.

The unit continuously compares sensor readings with these thresholds. If a reading exceeds a threshold, the alarm is “tripped” and the GRSE2X16 alerts the appropriate recipients by email and/or SNMP. When the alarm ends, the unit sends a “cleared” notice.

The GRSE2X16 has an audible alarm that can be triggered by alarm. A button on the front of the unit is used to turn off the alarm buzzer.

Remote Sensors

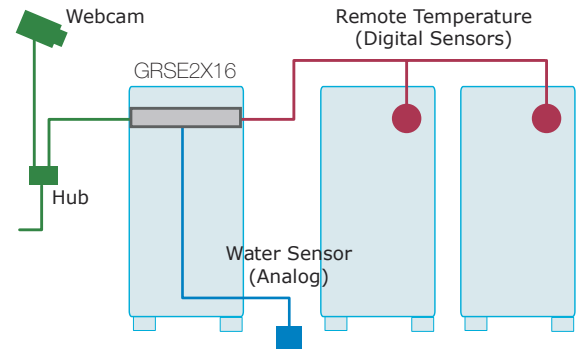
Analog: Analog inputs on the GRSE2X16 support any contact closure sensors and industry standard sensors that provide a 0-5VDC signal. Names for the input channels are configured through the web interface.

Examples: water sensor, door position, smoke alarm

Digital: Digital sensors provide sensor data through a serial protocol. Once connected, the GRSE2X16 automatically detects and identifies the sensor type. These sensors can be given a “friendly” name to make them easier to identify. No splitters are needed, since there is a built-in 16 port splitter.

Examples: temperature, temp/airflow, Analog to Digital Converter

Monitoring Multiple Cabinets



A GRSE2X16 uses remote temperature sensors to monitor multiple cabinets. A water sensor checks for water leaks and a web cam provides remote images of the room.

Sensor Details

Built-in Sensors

Temperature: -22 to 185 °F (-30 to 85 °C), +/- 0.5 °C
 Humidity: 0 to 100%, +/- 5%
 Air Flow: 0 to 99 (relative value)
 Light: Ambient light level
 Sound: Average sound level

Remote Sensor Support

Digital Sensor: 5 ports (expandable to 16 with splitters)
 Analog Sensor: 3 inputs (contact closure, 0-5 VDC)

Specifications

Physical: 19" Rack-mount, 1-U space
 Power: 6VDC (supplied wall transformer)
 Ethernet: 10 Mbps, RJ-45 receptacle
 Real Time Clock (RTC) with power backup
 Reset push-button: restores factory defaults
 Warranty: 1 Year

Software Features

HTTP / HTTPS: web access
 Alarms: high/low values, multiple thresholds per sensor
 ESMTP / POP3: email alerts, ESMTP / POP3 auth
 SNMP (v1, v2c, v3): Gets, Trap and Clear alerts, MIB
 Paging: email to pager proxy
 XML: meta-tagged sensor values, alarms, config
 Syslog: send debug messages to Syslog server
 Web interface: 4 styles to choose from
 Access-control: 3 access levels (view, control, admin)
 Web Cams (optional): Up to four can be displayed