Part Number: GRSE-B

A simple, low-cost device for monitoring cabinets and racks, and ports for connecting remote external sensors.

- Web accessible (no software to install)
- 5 built-in sensors
- 3 analog inputs for 0-5 VDC sensors
- 5 digital sensor ports for ITW external sensors
- Multi level alarms with escalation
- Alarm notifications sent by email and SNMP

The GRSE-B, a web-based device used for monitoring the environment in a server or equipment room. The device occupies a 1U space in a server rack.

Each GRSE-B is self-contained and accessed through a built-in web server. A user only needs a standard web browser (e.g. FireFox, Internet Explorer) to view current sensor readings and graphs of previous values. The climate monitor continually compares sensor data with user-defined alarms and sends notifications if there is a problem. Supports up to 16 remote digital sensors (using splitters) and a total cable length of 600'.

Web Interface

The web interface is the primary way to interact with the GRSE-B. 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.

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.
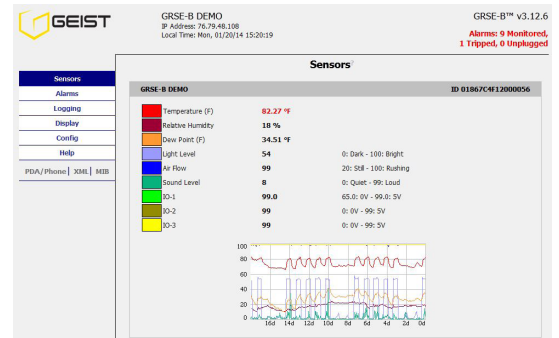
The availability of SNMP (v1, v2c, v3) based data allows dozens of Network Monitoring programs such as HP OpenView, IP Sentry, MRTG, or What's Up Gold (Ipswitch) to easily add the GRSE-B to the list of monitored devices.

Alarms

Alarm thresholds are used to define the normal operating range for sensors in your environment and what actions should be taken if a sensor leaves this range.

Web Interface-Sensor Page

Current sensor readings and graphs are displayed on the Sensors page of the web interface. Image from up to 4 webcams are also displayed.

Web Interface-Alarms Page

Alarms are configured with the web interface on the Alarms page. Multiple thresholds and alert recipients can be chosen for each sensor.

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If a threshold is crossed the unit can send email and SNMP traps to multiple recipients. A "clear" notification is sent when the sensor returns to the correct range.

Remote Sensors

Analog: Analog inputs on the GRSE-B 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.
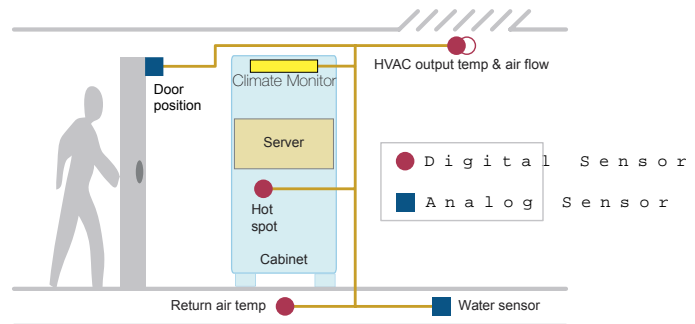
Examples: water sensor, door position, smoke alarm

Digital: Digital sensors provide sensor data through a serial protocol. Once connected, the GRSE-B 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

Firmware

The firmware running on the GRSE-B is field-upgradable. New firmware releases can be downloaded from the IT Watchdogs website.

The server room uses a GRSE-B to monitor the cabinet environment plus five external sensors to monitor thee A/C output, cabinet hotspots, return air temperature, water leaks and door position.

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

GRSE-B

IP Reset

On-board Temp, Humidity/ Dewpoint, Airflow Sensors

Light & Sound Sensors

| Temperature | RS2 | Leak Detection | Smoke Alarm |