CREMS8000©

Computer Room Environmental Monitoring System

Display real-time environmental conditions

Monitor all of your critical support equipment

Air-Conditioning duty/standby control

Alarms with configurable parameters

Full system and alarm event logging

Trend graphing and logging for Real-time Controls

Web Based User Interface

Email, SMS, SNMP and GPRS alarm transmision capable

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The CREMS8000 is the industry leader in environmental monitoring solutions for computer server rooms and Data Centres and is 100% designed and manufactured in Australia.

The system provides a host of features including:

- Up to 255 inputs (analogue, digital or high level)
- 128 alarm function blocks with adjustable parameters
- Up to 64 outputs (digital)
- 32 logic blocks (OR, AND, XOR, NOR, High, Low Select, Average)
- 32 specialised control function blocks
- 64 graph logging plots with 16384 plot points, adjustable time sampling and auto archiving of graphs with export facility
- Full event logging capabilities for input, output, alarm and system activity messages with advanced search functionality
- 16 configurable email addresses for alarm notification
- 16 configurable SMS numbers for alarm notification
- Alarm activity transmitted to a monitoring station with the Contact ID protocol over GPRS on the direct wireless network
- LCD Display for viewing alarms, time delays and set points
- SNMP Real time browsing and SNMP traps transmission of alarms
- TCP/IP embedded Web Server for view and setup of parameters in you favourite internet browser
- Modbus RTU to any device capable of supporting this protocol
- Energy Meter Monitoring for Power and Water

The CREMS8000 offers real time monitoring of all inputs and conditions for the essential equipment found in today's computer server rooms. It is a standalone microcontroller based solution, which is highly configurable and comes in many different hardware packages. Depending on the client needs it can be setup to suit almost any size or type of monitoring application, whether it be for a small comms room or enterprise data centre. It is a totally standalone monitoring solution which does not require PC software for operation or user interaction and is fully battery backed.

Individually named inputs and alarms are assigned to areas to show the presentation of monitored equipment in a meaningful way, which the client can easily see the status of their equipment. Analogue inputs can be configured to accept virtually any sensor (voltage, thermistor, current etc). Digital inputs can monitor either normally open or normally closed contacts and with the support of Modbus almost any device or sensor can be connected to the CREMS8000.

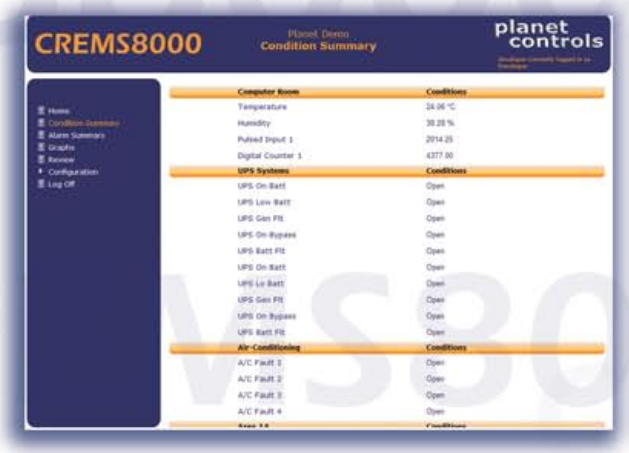
The real-time analogue data from sensors, digital statuses from inputs and alarms statuses can be viewed locally with the DSP8000 LCD panel or remotely in your favourite internet browser. SNMP capability for those clients who prefer to use their existing SNMP software is also fully supported.

Clients can be notified of alarm activity through a variety of reporting paths such as email, SMS, contact ID over GPRS and SNMP thus allowing for a solution which suits the type of application as well as rundancy.

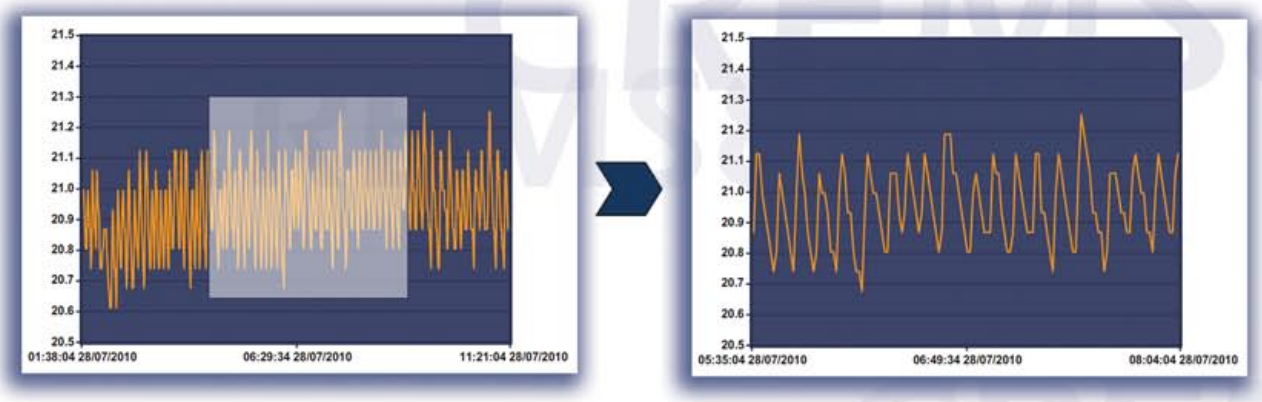
Web Interface

The CREMS8000 can be connected to a TCP/IP network. The embedded web server allows users to view room conditions, alarm states, trend graph logging, system event log and configuration of parameters such as alarm set points, alarm delays etc from the CREMS8000 over a local area network or internet using a regular internet browser. The module also allows the CREMS8000 to email alarms out using an inbuilt SMTP server, send SMS alarm notifications to mobile phones via the optional GSM modem or transmit alarm activity to a monitoring station via the contact ID protocol over the optional GPRS modem.

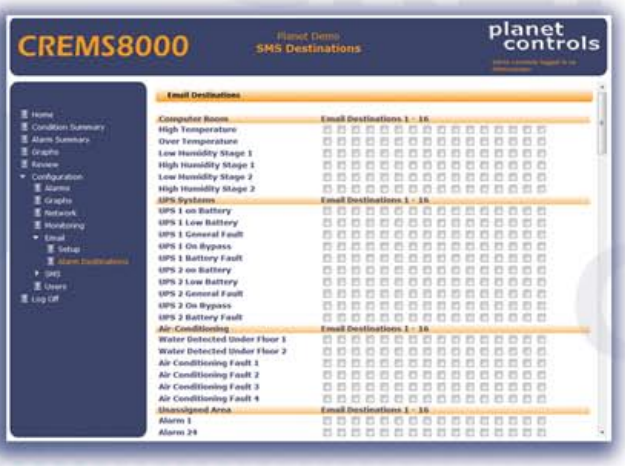
View Real time Conditions and Alarms on your Data Centre



View Trend log Graphs



Define Alarm Notifications via Email and SMS



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SMS

GPRS

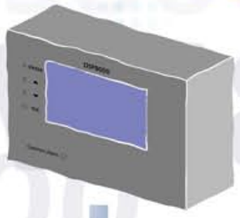
Email

SNMP Traps

SNMP Browsing

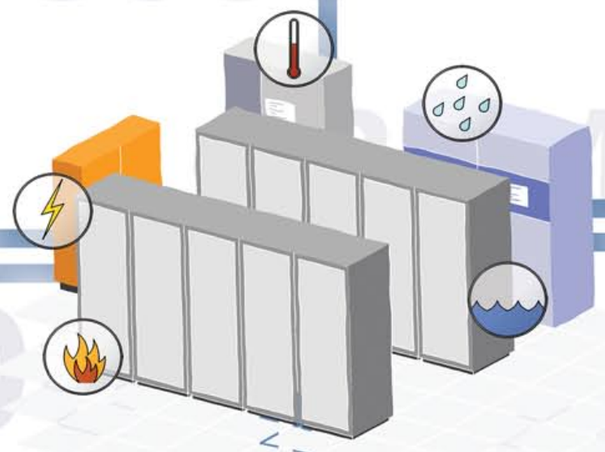
MESSAGING INTERFACES

VISUAL AND AUDIBLE ALERTS DSP8000



GPRS

SECURE PROXY PORTAL



REAL TIME VIEWING
EMBEDDED WEB SERVER

DIGITAL STATUS MONITORING

- VESDA
  - Stage 1
  - Stage 2
  - Stage 3
  - Fault
  - Isolate
- UPS
  - Fault
  - On Battery
  - On Bypass
  - Low Battery
- Air Conditioning
  - Unit n+1 Fault
  - Unit n+1 Run
- GENERATOR
  - Running
  - Fault
  - Fuel Level
  - Over Temperature
- SWITCHBOARD
  - Power Fail
  - Shunt Trip Operated
  - Surge Filter Fault

ANALOG STATUS MONITORING

- Telecommunications Room Temperature Sensing
- Computer Room Temperature/Humidity Sensing
- Water Under Floor Sensing
- Clamp on Current Sensing
- Circuit Branch Current Monitoring

HIGH LEVEL MODBUS MONITORING

- Power Metering
- UPS Monitoring
- Water Under Floor Sensing
- Liebert A/C Link up Panel
- Stulz Air-Conditioners
- Liebert Pex Air-Conditioners

CONTROL APPLICATIONS

- Time Zoned or Movement orientated lighting Control
- Air-Conditioning duty/Standby control with temperature load
- Shutdown of critical equipment on Alarm Activation

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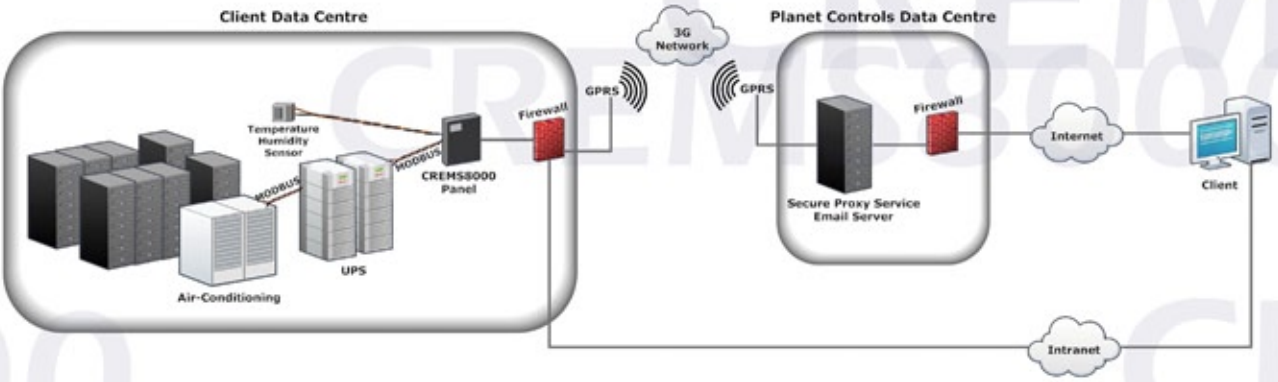
SNMP

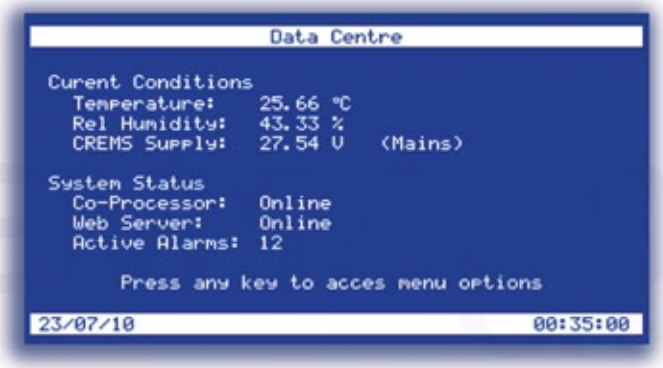
The CREMS8000 web server hosts a in-built SNMP agent capable of reporting all alarm state changes via SNMP traps to your SNMP server of choice. The agent also has the capability of making available all real-time input and alarm state values for viewing with a SNMP browser. A MIB file for the CREMS8000 is available upon request.

Network Overview



DSP8000 LCD Panel

The DSP8000 is a user interface device which displays system conditions and alarm states on a LCD display. It allows operators to view real-time values for the CREMS8000's inputs and provides a mimic for receiving and acknowledging alarms. Additionally an operator can check the system event log, set points and time delays.



HIGH LEVEL INTERFACES

Modbus

The CREMS8000 hosts a built-in modbus master driver capable of communicating to almost any modbus RTU device. Modbus registers from modbus slaves such as Crompton intelligent power meters, Liebert Air-Conditioning units and almost any modbus enabled UPS system can be read and assigned to inputs for further processing by logic blocks, alarm function blocks or simply for status viewing.

REMOTE ACCESS AND MONITORING

The CREMS8000 is fully supported by 24Hr remote monitoring service. Alarms are transmitted through a secure protocol over the GPRS network and received by a monitoring centre, the service is backed with a 90 second poll rate ensuring fail safe monitoring 24 hours a day. When an alarm event occurs, it is relayed to the monitoring centre as well as the defined email and SMS destinations. The monitoring centre runs through a call list, as defined by the client, relaying the alarm condition of the system. This is an excellent affordable solution for multi-panel/multi-site installations as a help desk can be contacted in the event of alarm activity.

SECURE PORTAL ACCESS

Planet Controls can also provide secure remote proxy access to the CREMS8000 panel through our secure servers hosted in an enterprise data centre, the service is facilitated by the in-built GPRS connection on the CREMS8000 panel. This is the perfect solution should the CREMS panel be required to be segregated from the local network or should key service providers be required to gain access to the CREMS panel. This negates the need for VPN connections outside of the internal network.

With personalised logon for each user, access can be restricted and customised. Should there be a power outage, the backup batteries will maintain the wireless modem connection and the system will remain online and accessible. Emails are sent via Planet Controls secure servers which are hosted within an enterprise data centre.

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THE COMPANY BEHIND THE PRODUCT

Planet Controls' mission is to remain one of Australia's leading providers of automated building control and monitoring solutions. Using the latest in controls and monitoring technology, we provide state of the art solutions to meet our client's needs.

Planet Controls is the manufacturer, distributor and installer of the CREMS8000 product range.

The CREMS8000 product range was developed closely with our customers needs in mind. Our customers have had a large influence on certain product design features within our range, that has ensured the CREMS8000 meets our customers specification's and requirements for environmental monitoring within their computer rooms.

With our network of installers and approved resellers nationally, Planet Controls is able to service all areas of Australia providing installation, service repairs and maintenance.

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