

FEATURES

CM9001-EMS is an advanced Environmental Monitoring System which monitors **temperature, humidity, water leakage and other sensors.**

It is specifically designed for unattended facilities like **data centres, server rooms, wine chillers, telecom base stations, and pharmaceutical freezers.**

Notification of alarm is via dialout to a maximum of 16 phone numbers for Voice announcements or SMS messages, or via email to 4 recipients.

8 outputs on the system can be programmed to control equipment via relays or to send Infrared signals to control air conditioning systems.

CM9001-EMS is a modular system which allows easy expansion of functions, Input/Outputs, and external interfaces like Modbus, KNX and C-Bus, or RS232 and RS485 interfaces.

Up to 4 sensor values and setpoints can be monitored and controlled by any of a maximum of 15 KP04A keypads in the system.

The temperature or humidity and setpoints are shown on the keypad LCD. Changes to the setpoint can be enabled or disabled.



Setpoints and their alarms may be disabled when necessary, for example when testing so that the sensors are only shown for monitoring purposes.

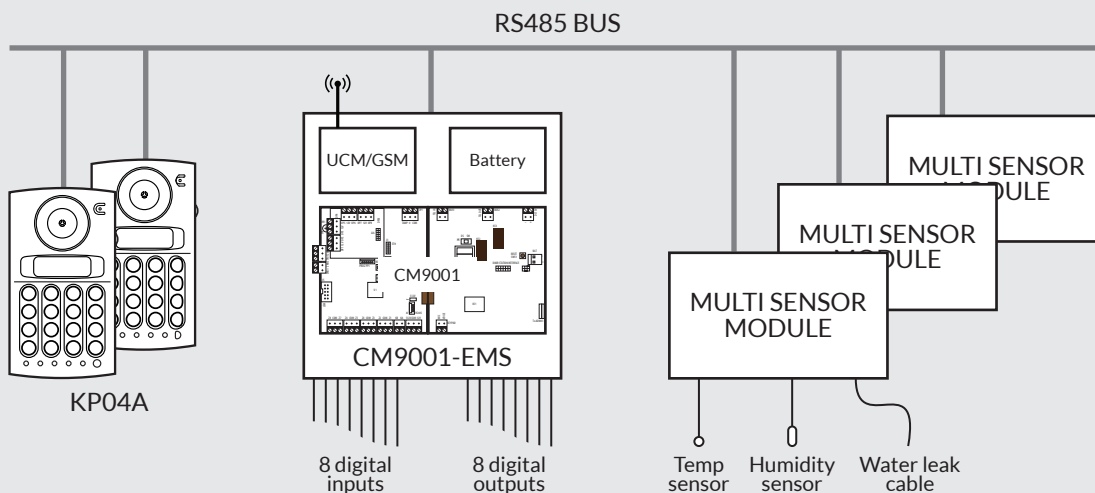


When the sensor reading exceeds the setpoint, an Alarm for the relevant sensor is triggered, which then calls or sends SMS messages to the selected phone numbers for that alarm. The alarm will cause an audible siren sound on the keypad and optionally on an external Siren. The alarm siren may be disabled by entering a code on the keypad. The Event Log with a capacity of 600 events can keep the history of the sensor alarms with date/time stamps.

Setpoints, Hysteresis, Calibration, Scaling, Units, and Sensor Name for up to 32 sensors can be programmed using the Configurator software, to be displayed on the KP04A LCD keypads.



KP04A KEYPAD



SPECIFICATION

APPLICATION MARKETS

1. Data centres
2. Commercial/industrial refrigeration systems
3. Telecom towers
4. Wine chillers
5. Any unattended facilities

SENSORS MONITORED

1. Temperature
2. Humidity
3. Water leakage
4. Digital inputs for machine failure, eg UPS, CRAC. FM200
5. AC Power failure & low battery (Self-monitoring)
6. Current sensors (air conditioners and other equipment)

CONTROL OUTPUTS

1. Outputs for relay switching
2. Infrared signals for split unit air conditioner control

NOTIFICATION/REPORTING

1. SMS or dial-out voice announcement to 16 phones (requires UCM/GSM4)
2. Email to 4 recipients (requires ETH03)

OTHER FEATURES

1. Scheduling/time programs
2. Event log with 600 events with date/time stamp
3. Internet access and control (via mobile app)
4. SMS control of equipment
5. Central monitoring/control of multiple systems
6. Built in Logic Engine with if/then/else conditional programming

HARDWARE

- CM9001-EMS with 8 inputs/ 8 outputs expandable to 96 inputs/outputs
- KP04A LCD Keypad for display/setting of sensor and setpoints
- ETH03 (optional) plug in submodule for email and app control
- UCM/GSM4 (3G) optional for SMS notification and control
- IRIO01 with ISM02 monitor temperature, humidity, water leakage
- MSM01 multi-sensor Module to monitor temperature, humidity, water leakage
- TSM01 Temperature Sensing Module with LCD
- LEM02B Local Expansion Module with 8 inputs, plugged to CM9001-EMS or SEM01C
- SEM01C Slave Expansion Module with 8 inputs, connected by Rs485 Cable.

INBUILT ALARMS

- AC failure – due to power failure on its own AC supply
- Low Battery – low battery on the backup 12V battery
- Tamper – built in internal tamper input

SENSORS

Temperature

Temperature range: 0 to 80 deg C

Accuracy: +/- 1 deg C (at 25% 60 % RH)

Humidity

Humidity Range: 0-100 % RH

Accuracy: +/- 3 % RH (at 25% 60 % RH)

Water Leak

Water Leak Sensor/Cable - external

DIGITAL INPUTS

8 inputs (expandable to 96) can be programmed for Normally Open or Normally Closed sensors to trigger special alarms with programmable dial out to 8 phone numbers. End of Line Resistors can be connected to detect Open-Circuit/Short-Circuit

EXTERNAL INTERFACES (OPTIONAL MODULES)

- Modbus
- KNX
- C-Bus
- Many 3rd party control systems

I/O EXPANSION

Slave Expansion Modules can be remotely installed to supply up to 96 inputs and outputs

CASING

Metal Enclosure 310 x 350 x 95mm with lock

POWER SUPPLY

Universal Power Supply: 90-240 VAC , 15VDC output 1.7 Amps

Battery Backup: 12V 7 Ampere-Hour sealed lead acid battery (not included)

Battery backup time: Minimum 4 hours

Power Failure and Low Battery alarms are activated

PROGRAMMING

By Configurator Software