# RTsystems

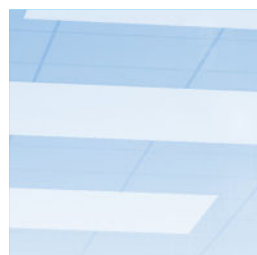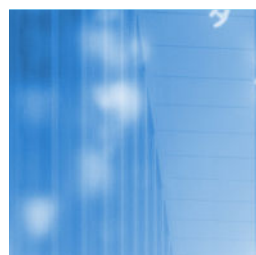# Remote Monitoring

# TM4
## The TM4 Range of Environmental Monitoring Systems

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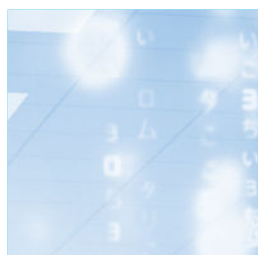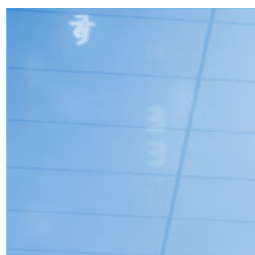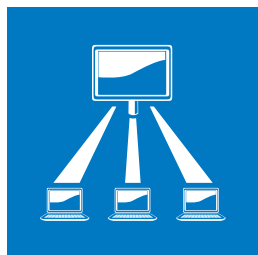
## About RT Systems

RT Systems was established in 2000 to cater for the growing need of many businesses for the continuous monitoring of their IT support infrastructure. In order to reduce the risk of system downtime as a result of unfavourable environmental conditions or power outages, IT managers have the need for a system that can provide early warning of various alarm conditions.

With a strong background in air-conditioning, PLCs and computer room design, the team at RT Systems has developed a number of comprehensive environmental monitoring solutions to cater for both GSM and IP based notification of alarm conditions.

**RTsystems**
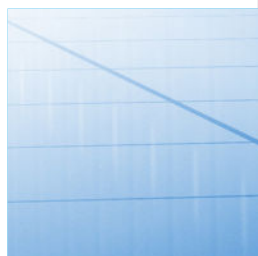
# Why Environmental Monitoring?

With business placing an increasing demand on system availability, IT managers are now faced with the need to provide strictly controlled environmental conditions such as power, temperature, flood, humidity and fire protection. This means that the IT department is not only focused on providing support to IT systems but is now concerned with air-conditioning, generators, UPS and fire suppression systems.
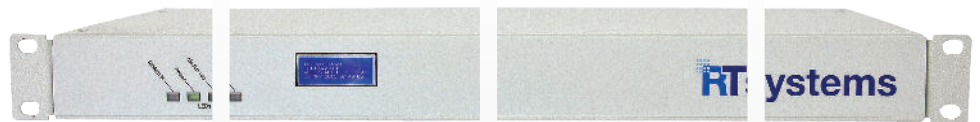
# Introduction to the TM4

The TM4 range of environmental monitoring systems allow 24/7 monitoring of remote sites. Specially designed for the data centre market, the TM4 will alert the user of any abnormalities.

The TM4 hardware and software has been designed to enable network managers and IT infrastructure managers to minimise system vulnerabilities and reduce the impact of external environmental incidents. The TM4 will report any alarm monitored immediately, often before the user is aware that the problem exists, and removes the need for constant manual checks by local staff.

The TM4 hardware comes in a 1U 19 inch rack mounted form factor with two variants depending on the alarm management required. The alerting notifications, depending on the units selected, may be achieved via SNMP trap, email, SMS or a graphical user interface.  Offering  seamless integration to the most popular network management systems for multiple site deployments.
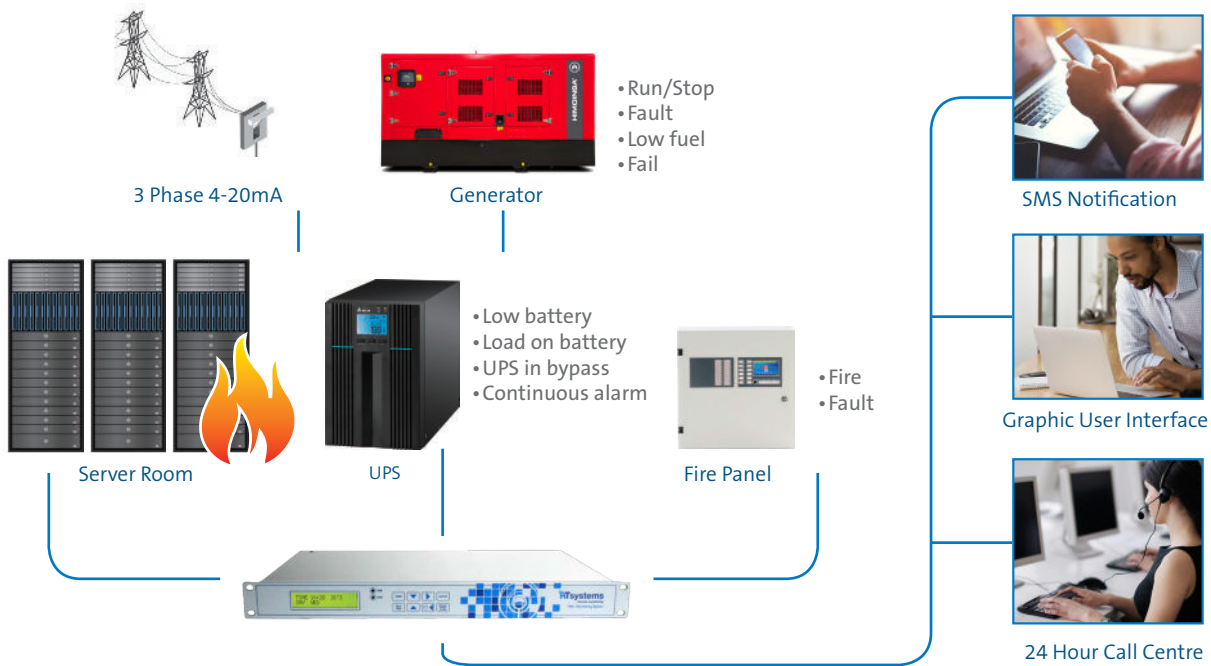
# TM4
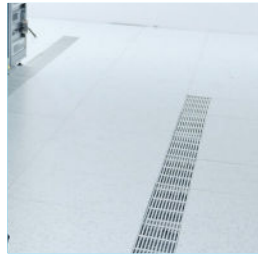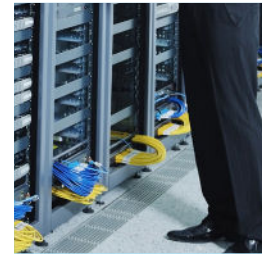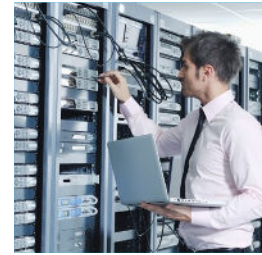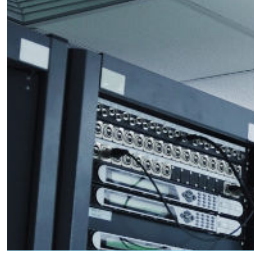
Designed and manufactured as the most comprehensive environmental monitoring unit in the TM range. The TM4 accommodates a large variety of inputs to ensure full coverage of your data centre.

Built-in battery back-up, informative LCD display and a user-friendly graphical user interface are just some of the features available on the TM4. Alerts and information may be sent via SMS, email and SNMP traps. The software integrated DVR will cover your security needs.

3 Phase 4-20mA

Generator
- Run/Stop
- Fault
- Low fuel
- Fail

SMS Notification

Server Room

UPS
- Low battery
- Load on battery
- UPS in bypass
- Continuous alarm

Fire Panel
- Fire
- Fault

Graphic User Interface

24 Hour Call Centre

### TM4 unit features

| TM4 unit features | |
|---|---|
| GUI | SMS |
| SNMP | GSM |
| Internal back-up battery | Email |
| DVR | Selftest |

### Installation features

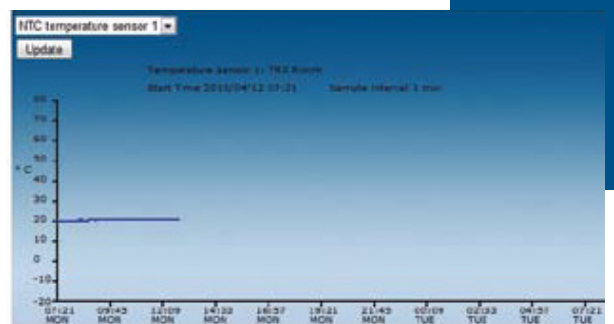| Installation features | |
|---|---|
| Temperature | 4 |
| Flood | 2 |
| Dry Contact | 15 |
| 4-20 mA | 3 |
| Relays | 2 |
| 12V DC | 2 |
| 18V DC | 1 |

# GUI
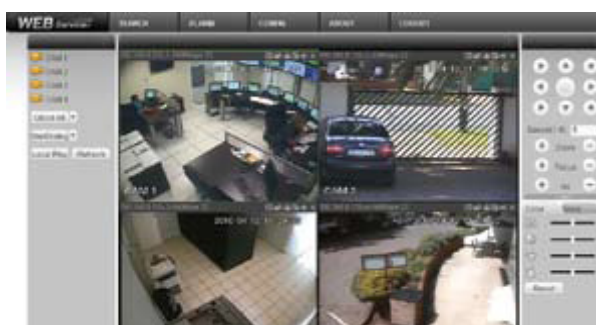
# GUI (Graphical User Interface)

The TM4 Monitoring Unit displays and collects numerous types of data which can be viewed on the device's web interface. Data can also be accessed by SNMP and GSM SMS. On the web interface the following data can be viewed:


Device Configuration


Data History


Cameras


Alarm Configuration

# TM4 Components



**TM4 wall sensor module**
The wall sensor pod comes complete with a built in temperature sensor and an active temperature display.



**TM4 rack mounted module**
Monitor up to 6 universal sensors and up to 10 sensor modules can be connected to the TM4 main appliance. For convenience this sensor module is suited for installation into a 19" server rack.



**Camera**
The TM4 appliance has four dedicated camera ports. The camera ports are Power over Ethernet (POE) enabled and therefore no external power supplies are required for the cameras directly connected to the appliance. A maximum of seven cameras can be connected to the appliance.



**Network sensor module**
Instead of a hardwired connection to the TM4, the network sensor modules allow remote components or sensors to connect to the main appliance via the WAN or LAN network, still allowing for a 6 universal sensor connection, even over long distances.



**Dry contact I/O module**
48 dry contact cables can be connected to the dry contact I/O module – ideal for the collection of alarms from dry contacts of UPSs and generators.



**Wireless sensor module**
Quick expansion and deployment of multiple temperature, humidity and pressure sensors throughout the data centre environment without the need for complex hardware and cabling and connections.

# Surveillance Solutions



| H.265 | H.265 encoding technology, 4K resolution output, power over coax (PoC). |
|---|---|
| REC | D1 resolution recording. Network Attached Recording (NAS). |
| HDD | Up to 2TB of recording. 30 days video capture on all channels. |
| Alarm | Motion Detection, Alarm Inputs, Relay Outputs, System Watchdog. |
| HDMI | Video outputs: HDMI, VGA and BNC analogue. All concurrently operational. |
| Dual stream | First stream for high resolution. Second stream for remote viewing applications. |
| USB | External USB Hard drive back-up. USB mouse optional. Flash stick ready. |
| Remote access | Remote live viewing, playback, record and configuration. Mobile phone software. |
| Cameras | Super HAD CCD, Super-High Resolution 540TVL cameras. |

# Sensors

| | | | | |
|---|---|---|---|---|
| **Dry contact cable** | **Temperature sensor** | **Humidity sensor** | **Flood sensor** | **4-20mA humidity sensor** |

| | | | |
|---|---|---|---|
| **Wireless temperature sensor** | **Wireless pressure sensor** | **Wireless humidity and temperature sensor** | **GSM Modem** |

# 24 Hour Call Centre

**Monitoring data collection**

The objectives of the RT Systems' call centre service is to act as a 24-hour helpdesk or call logging facility on behalf of the client.
Call centre staff will log all the related calls on a dedicated software platform and forward them to predefined recipients for processing. The available options will ensure that data will be securely processed and stored on a server in an off-site hosting facility. A standard browser will be used to access and process data.

The 24-hour call centre:
- Independently logs all incoming calls and emails securely and forwards them to the predefined recipients
- Uses a software platform either supplied by RT Systems or the client to handle all the call logging and processing functionalities required
- Securely stores data and makes it available for further processing and reporting from a standard browser.
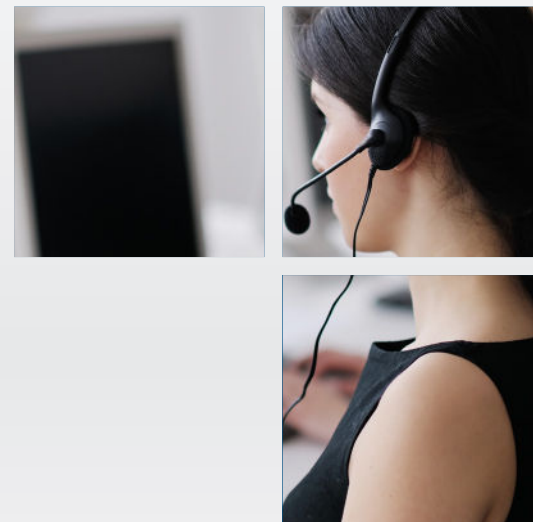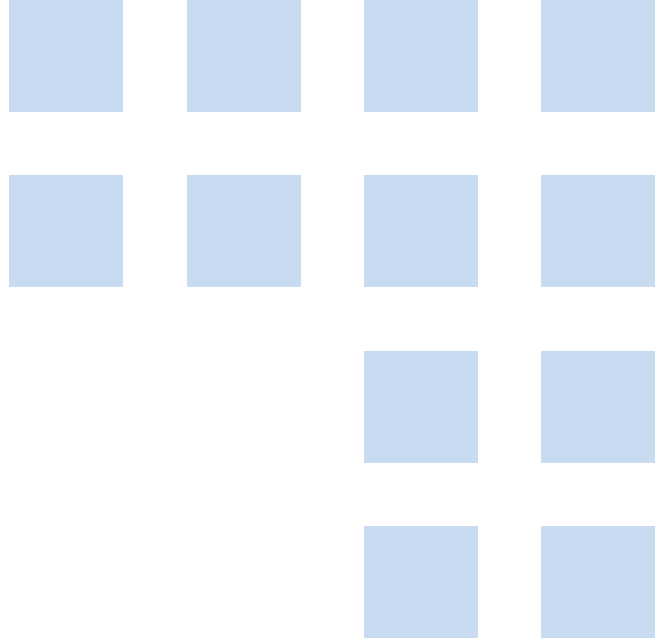
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