

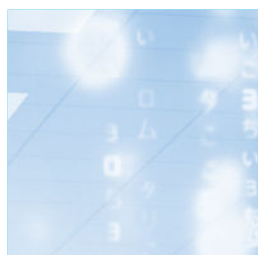
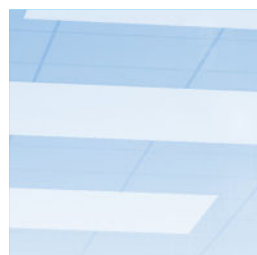
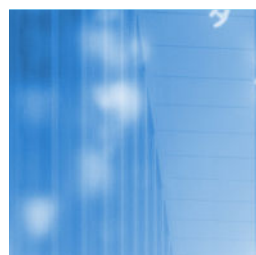
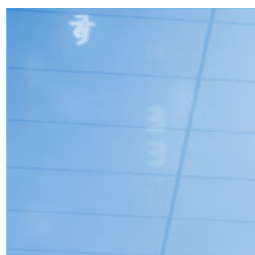
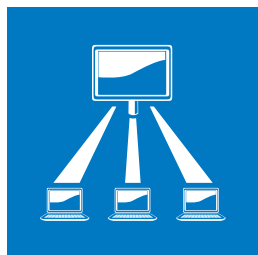


Remote Monitoring

TM3 The TM3 Range of Environmental Monitoring Systems

CONTENTS

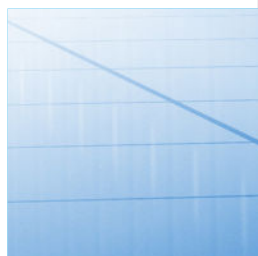
About RT Systems	2
Why Environmental Monitoring?	3
Introduction to the TM3	3
TM3	4
Graphical User Interface	5
Sensors	6
Surveillance Solutions	6
24 Hour Call Centre	7



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.



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 TM3

The TM3 range of environmental monitoring systems allow 24/7 monitoring of remote sites. Specially designed for the data centre market, the TM3 will alert the user of any abnormalities.

The TM3 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 TM3 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.

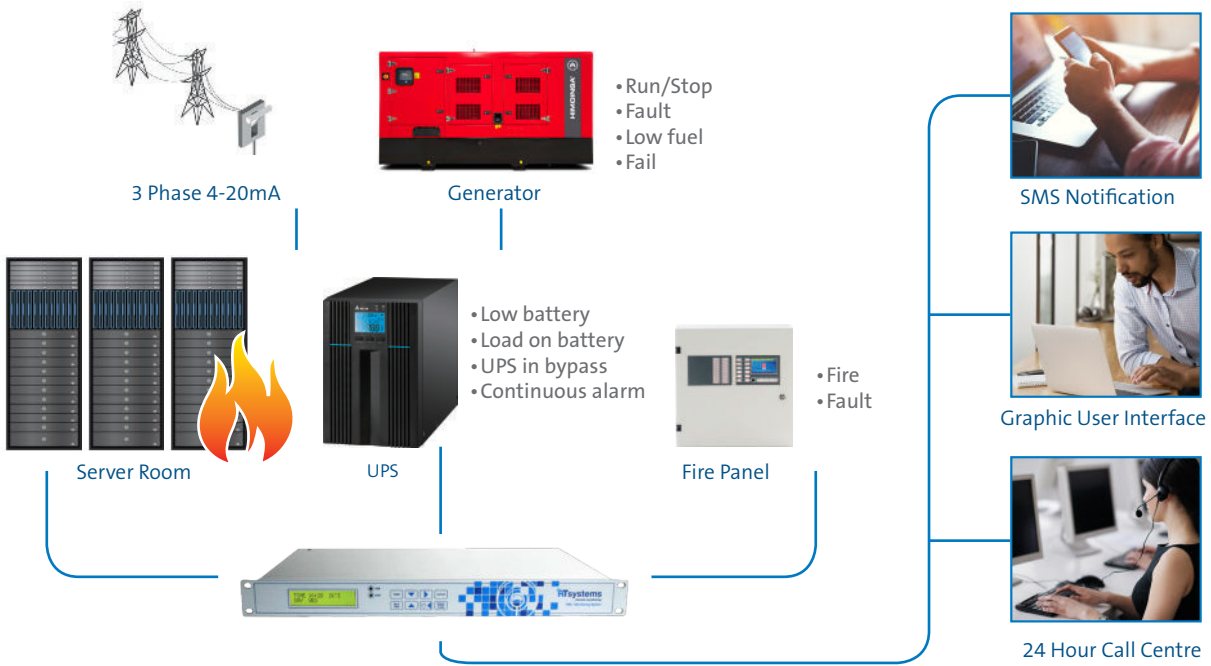
The TM3 hardware comes in a 1U 19 inch rack mounted form factor with two variants depending on the alarm management required. The alerting notifications, depending on the units selected, may be achieved via SNMP trap, email, SMS or a graphical user interface. Offering seamless integration to the most popular network management systems for multiple site deployments.

The logo for TM3, consisting of the lowercase letters 'tm' in a white, sans-serif font on a blue square background.

TM3

Designed and manufactured as the most comprehensive environmental monitoring unit in the TM range. The TM3 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 TM3. Alerts and information may be sent via SMS, email and SNMP traps. The software integrated DVR will cover your security needs.



TM3 unit features

GUI	SMS
SNMP	GSM
Internal back-up battery	Email
DVR	Selftest

Installation features

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

GUI

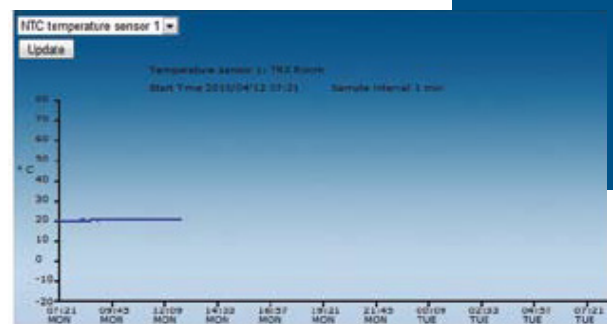


GUI (Graphical User Interface)

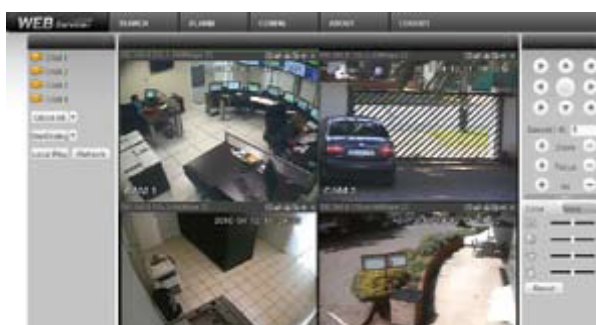
The TM3 Monitoring Unit displays and collects numerous types of data which can be viewed on the device's web interface. Data can also be accessed by SNMP and GSM SMS. On the web interface the following data can be viewed:

ID	Component	Alarm Type	Alarm Name	Contact 1	Contact 2	Contact 3
01	Temp 1	Server Room SUB CRITICAL TEMP		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
02	Temp 2	Server Room CRITICAL TEMP		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
03	Temp 3	Printer Room HIGH CRITICAL TEMP		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
04	Temp 4	Printer Room CRITICAL TEMP		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
05	Temp 5	Storage Room CRITICAL TEMP		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
06	Temp 6	Storage CRITICAL TEMP		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
07	Temp 7	DCU Temp 4 HIGH CRITICAL TEMP		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
08	Temp 8	DCU Temp 4 CRITICAL TEMP		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
09	Fault 1	Server Room SHORT CIRCUIT		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	Fault 2	Server Room OPEN CIRCUIT		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	Fault 3	Printer Room SHORT CIRCUIT		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	Fault 4	Printer Room OPEN CIRCUIT		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	Power	Main Power		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	Pressure	Pressure DC Voltage		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Device Configuration



Data History



Cameras

Alarm ID	Alarm Name	Alarm Type	Alarm Group	Alarm Time	Alarm Status
01	Temp 1	Server Room SUB CRITICAL TEMP	Server Room	2016/04/12 07:21	Enabled
02	Temp 2	Server Room CRITICAL TEMP	Server Room	2016/04/12 07:21	Enabled
03	Temp 3	Printer Room HIGH CRITICAL TEMP	Printer Room	2016/04/12 07:21	Enabled
04	Temp 4	Printer Room CRITICAL TEMP	Printer Room	2016/04/12 07:21	Enabled
05	Temp 5	Storage Room CRITICAL TEMP	Storage Room	2016/04/12 07:21	Enabled
06	Temp 6	Storage CRITICAL TEMP	Storage Room	2016/04/12 07:21	Enabled
07	Temp 7	DCU Temp 4 HIGH CRITICAL TEMP	DCU Temp 4	2016/04/12 07:21	Enabled
08	Temp 8	DCU Temp 4 CRITICAL TEMP	DCU Temp 4	2016/04/12 07:21	Enabled
09	Fault 1	Server Room SHORT CIRCUIT	Server Room	2016/04/12 07:21	Enabled
10	Fault 2	Server Room OPEN CIRCUIT	Server Room	2016/04/12 07:21	Enabled
11	Fault 3	Printer Room SHORT CIRCUIT	Printer Room	2016/04/12 07:21	Enabled
12	Fault 4	Printer Room OPEN CIRCUIT	Printer Room	2016/04/12 07:21	Enabled
13	Power	Main Power	Main Power	2016/04/12 07:21	Enabled
14	Pressure	Pressure DC Voltage	Pressure DC Voltage	2016/04/12 07:21	Enabled

Alarm Configuration

Sensors



S1 Temperature Sensor



S2 Flood Sensor



S3 Dry Contact Cable



S4 Smoke Detector



S5 Humidity Sensor

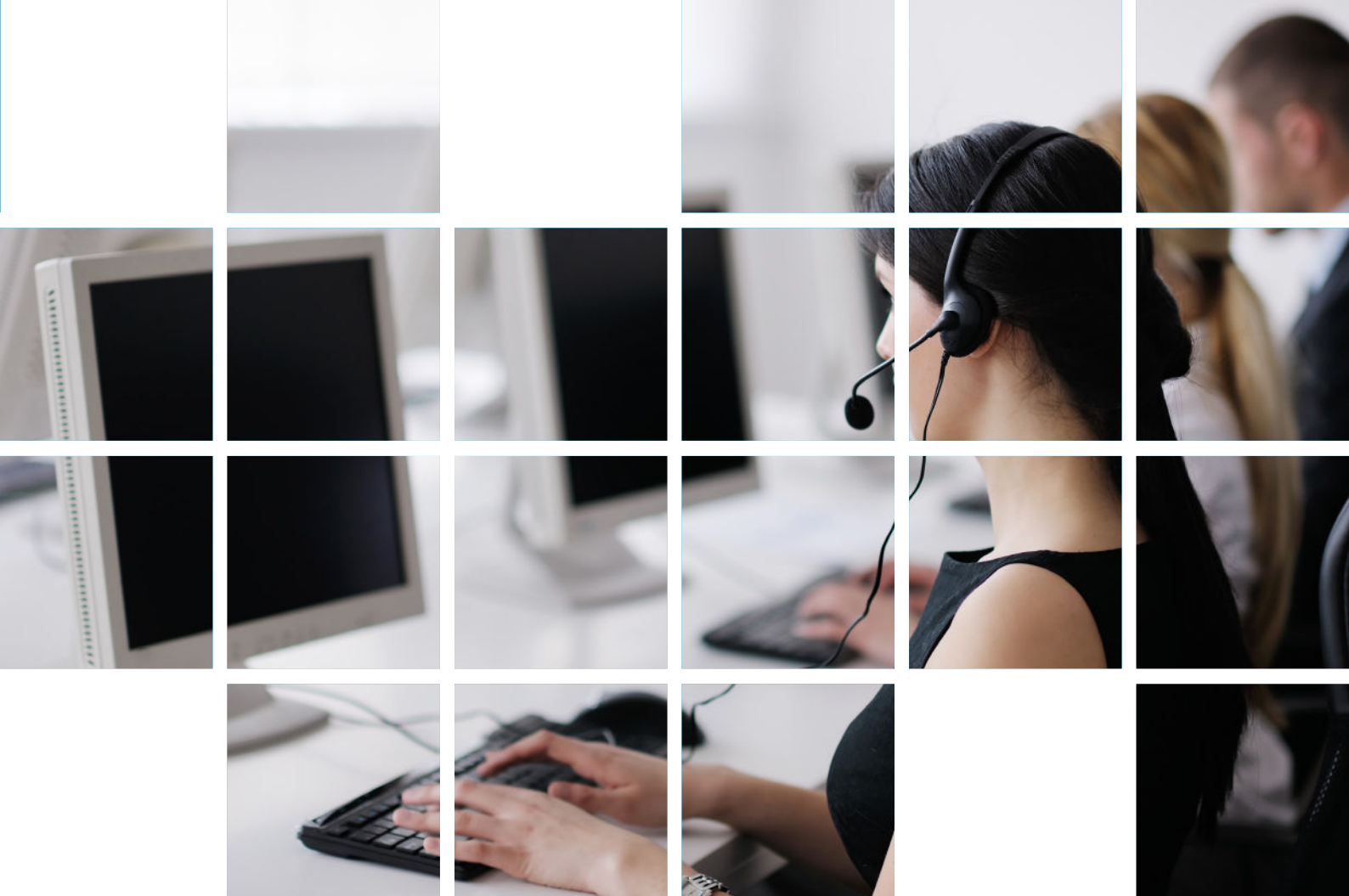


S6 4-20 mA Current Transducers

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.



24 Hour Call Centre

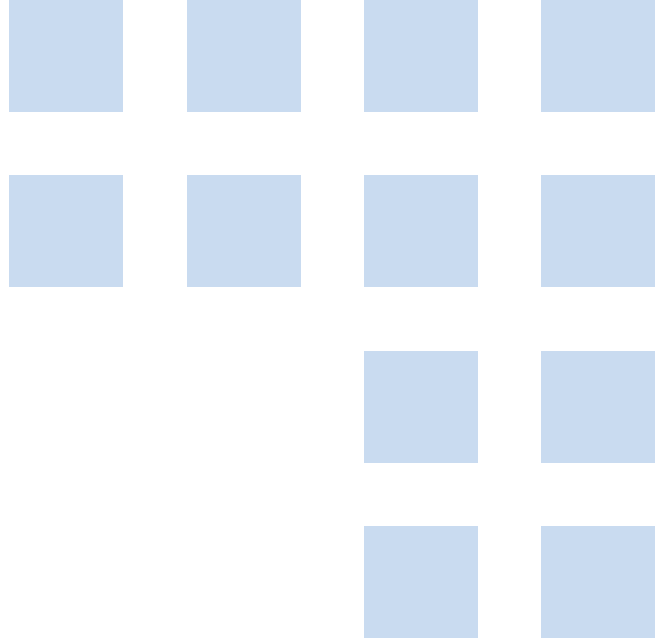
Monitoring data collection

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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