



# Wireless Temperature Monitoring



# System Overview

## Advantages of Monitoring with System5

- Reduce energy costs through efficient plant optimisation
- Improve product quality with comprehensive process monitoring
- Control wastage costs with 24 hour remote alarm system
- Alleviate audit stress with easy to access current and historical records
- Eliminate time spent taking manual readings
- Reduce errors resulting from manual checks
- Monitor and analyse environments with readily accessible reports

## System5 is IceSpy®'s latest flexible and reliable wireless monitoring system.

Over 16 years of knowledge, experience and expertise of wireless monitoring has been invested into **System5**, giving you the confidence of installing a system that will meet your every need. IceSpy® products have built in monitoring for temperature, humidity and door events. With **System5**, you can add sensors to monitor many other parameters such as gases, flow rates, pressure or pH levels.

## What does System5 Monitor?

**System5** is used to monitor fridges, cold rooms, storage facilities, vehicles, warehouses, laboratory equipment such as -80°C freezers and incubators, and manufacturing processes.

The system consists of **Scout** transmitters that log, store and wirelessly send readings to the **BasePlus** unit. Data can be downloaded to either a single PC, IT network, or to the Internet. **Echoes** can be used to extend the range of the system.



# System Features

## Reliable & Secure Data

- Avoid costly, disruptive and complicated cable installations
- Easy system expansion or relocation; new sensors are automatically detected and easily set up
- 1km outdoor range, and one of the longest ranges available on a typical indoor site. Extendible using **Echoes**
- Built-in memory within transmitters and base unit ensure data integrity

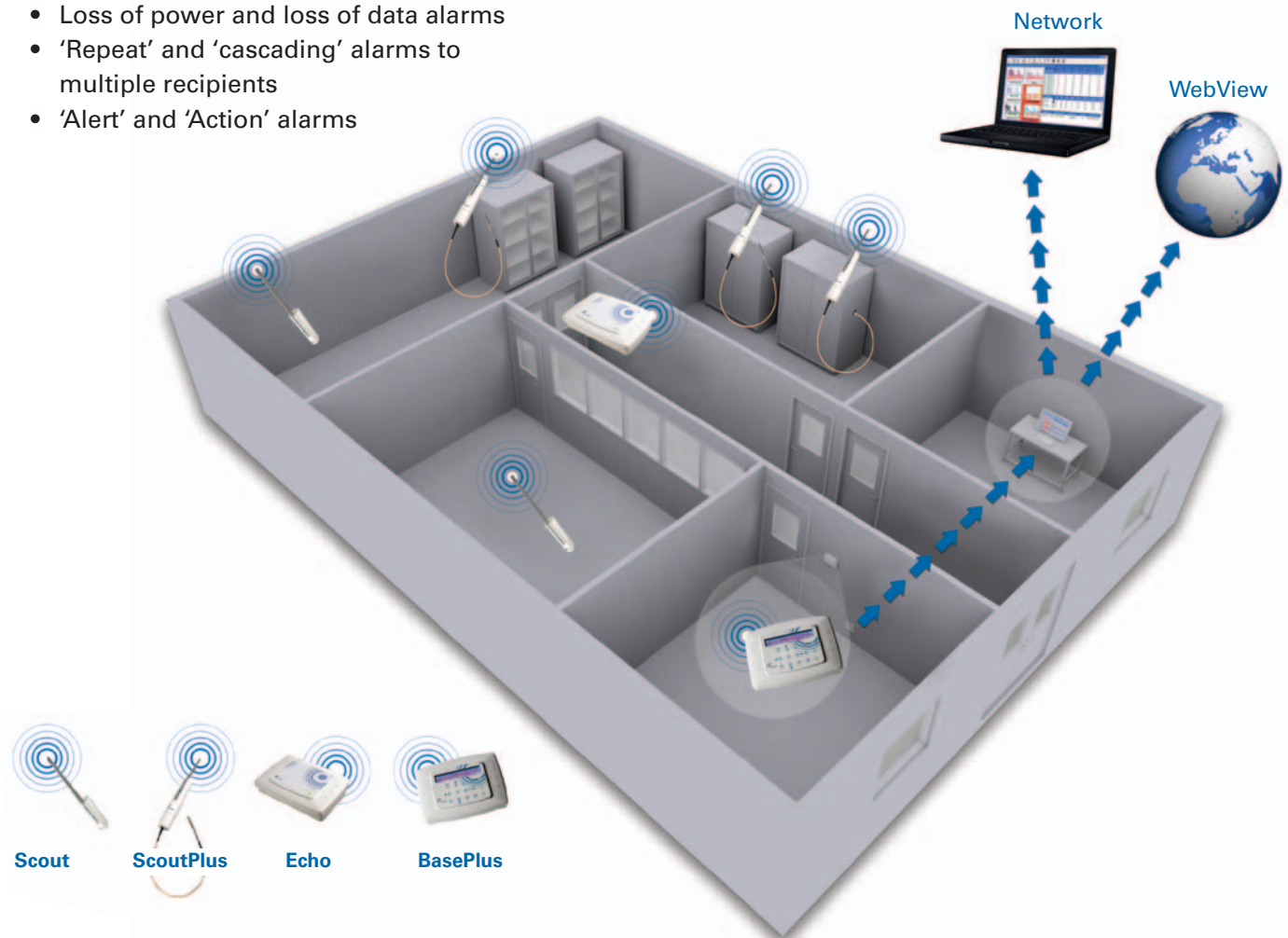
## Live & Continuous Monitoring

- Saves time taking manual readings
- No need to manually download data loggers
- Automatically gathers and stores readings from transmitters
- Live readings can be viewed at a glance on the **BasePlus**, PC or on the web

## Flexible Alarm Options

The need to receive reliable and timely alarms is critical. **System5's** alarm features have been developed to cover almost every eventuality and requirement:

- Visual and audible alarms on **BasePlus** unit and on PC
- Remote alarms by text message, email, switchboard, BMS
- Alarms can be scheduled for specific users, departments, times of day, or days of week
- Loss of power and loss of data alarms
- 'Repeat' and 'cascading' alarms to multiple recipients
- 'Alert' and 'Action' alarms





# System Features *continued*

## Easy Data Access and Reporting

- Data from multiple sites or departments can be managed by a single system
- Data is easily viewed and managed in user friendly software
- Reports and graphs can be easily created and exported to a variety of formats, e.g. Excel, PDF and HTML
- Single or multi user software
- Automatically calculate industry specific parameters, such as 'mean kinetic temperature', 'pasteurisation rates' and 'dewpoint'
- Site plan view



## Assists Regulatory Compliance

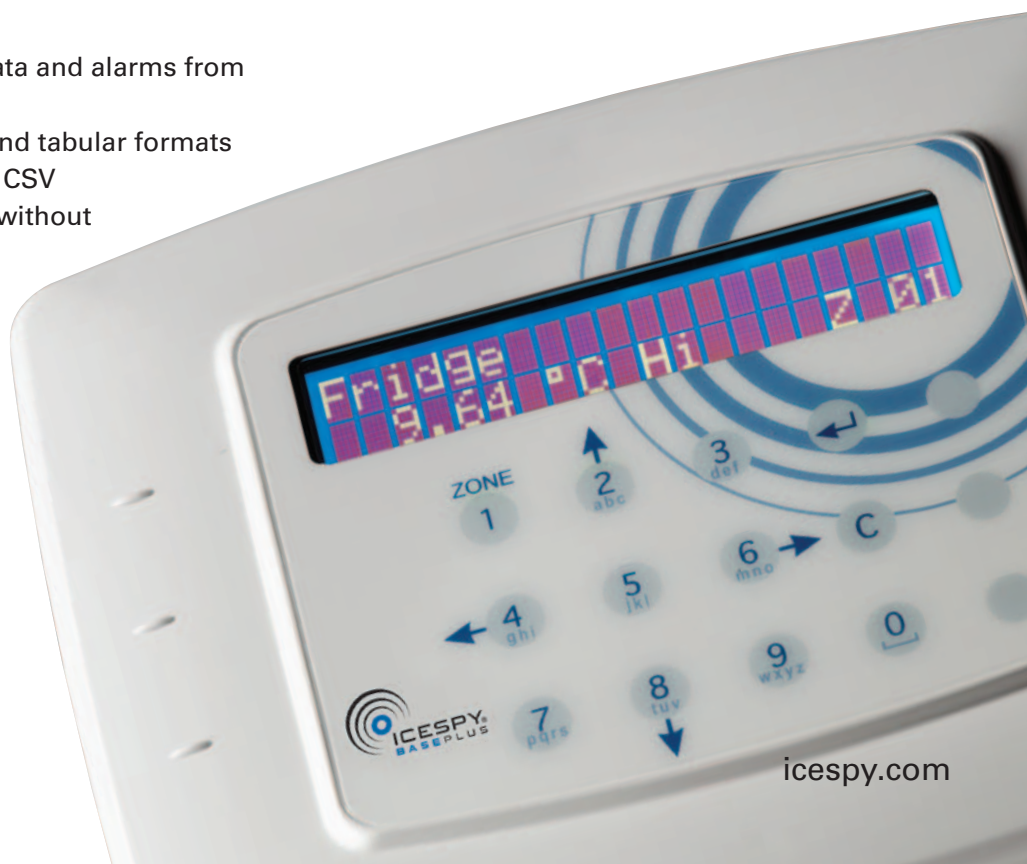
MHRA  
 CPA, 21CFR Part 11  
 ISO9001/2008  
 Human Tissue Regulations  
 HACCP

The 'Extra-Secure' software version is used extensively by the pharmaceutical industry to help meet US Food & Drug Administration 21CFR Part11 regulations. It offers maximum system security with special features such as full audit trails, electronic signatures and enhanced data and access security.



## Web Access

- Access your latest **System5** data and alarms from anywhere via the internet
- View latest data in graphical and tabular formats
- Print, or export data to PDF or CSV
- Investigate new alarm events without having to travel to site
- View and acknowledge alarm events remotely (automatically updates your local System5)
- View and acknowledge connectivity alarms (transmitters and internet connections)





# System Information

## Measurement

<b>Internal Sensor</b>	-40°C to +70°C	+/- 0.5°C	Optional calib +/- 0.2°C
<b>External Probe</b>	-80°C to +40°C	+/- 0.5°C (between -40°C to +85°C)	
<b>Core Stimulant Probe (BS4376)</b>	-30°C to +60°C	+/- 0.5°C	
<b>PT100 External Probe</b>	-200°C to +450°C	+/- 0.1°C to +/- 0.5°C	
<b>Humidity</b>	0% to 100% RH	+/- 2%	
<b>Door Opening Events</b>	Monitors total time a door has been open within given period		
<b>Multiple Parameters (via a 4-20mA adapter)</b>	E.g. CO <sub>2</sub> , pH, flow, Pressure		
<b>Expected Battery Life</b>	5 years (For continuous use of internal sensor above +30°C and below -25°C contact your supplier for advice)		
<b>Waterproof and dustproof</b>	IP68 (IP67 with external probe)		

## Wireless Communications

<b>Radio Range</b>	1000m (outdoors) extendible using Echo units
<b>Mesh Networking</b>	A mesh network can be created by adding additional Echo units
<b>Radio Frequency &amp; Power</b>	433.9 MHz Licence Free, Max 10mW

## Data Storage & Communication

<b>Memory</b>	Scout & Base Unit have built-in memory to ensure data integrity
<b>Connectivity</b>	Ethernet, USB, RS232, Modem, BMS (relay/4-20mA output)
<b>Power Backup</b>	Built in backup batteries in Base and Echo ensure no loss data during periods of power loss
<b>Database Format</b>	Microsoft® SQL database allows integration with other systems

## Alarms

<b>Alarm Events</b>	High or low alarms triggered after user-defined delay period
<b>Local Alarms</b>	BasePlus Display, PC, strobe/sounder
<b>Remote Alarms From Base</b>	Text message, email, relay, voice call
<b>Remote Alarm From PC</b>	Text message, email, voice call
<b>Other Alarm Features</b>	Repeat, loss of data, multiple recipients, cascading, loss of power, remote cancellation
<b>Alarm Scheduling</b>	Alarms can be restricted to specific times of day, or days of week
<b>Multiple site/department</b>	Alarms can be sent to specific staff in charge of specific departments

## Software

Available in 3 versions: Compact, Network, and Extra Secure (21CFR)
Compatible with Windows Vista®, 2000®, XP Pro®, 2003 Server®, 2008 Server®, Windows 7
Web access using 'System5 WebView'



CONTACT



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