



ICESPY[®] SYSTEM 5

Wireless Temperature Monitoring



www.icespy.com



Reliable & Secure Data



Live and Continuous Monitoring



Flexible Alarm Options



Easy Data Access and Reporting

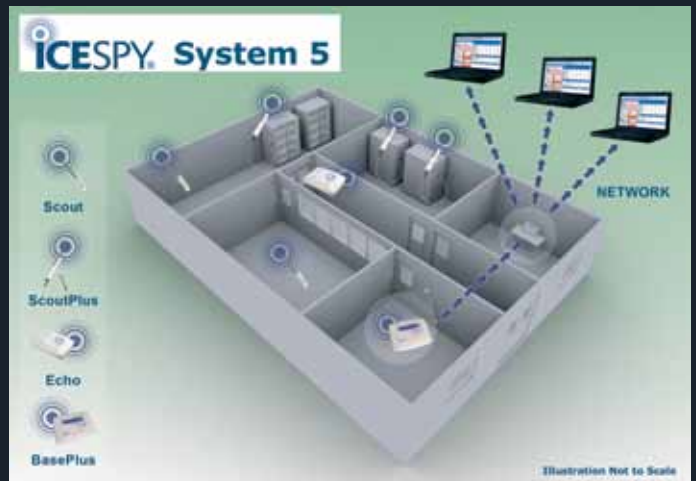


Assists Regulatory Compliance

System Overview

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

Over 12 years of knowledge, experience and expertise of wireless monitoring has been invested in **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.



The system consists of **Scout** transmitters that log, store and send readings to the **Base-Plus** 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.



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.



Advantages of Monitoring with System5

Advantages

Improve product quality with comprehensive process monitoring

Reduce wastage costs with 24 hour remote alarm system

Alleviate audit stress with easy to access current and historical records

Reduce time spent taking manual readings

Reduce possible errors resulting from manual checks

Understand what's going on with easy to produce graphs and reports

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**
- Each component of the system contains memory for data backup e.g. in the event of a power cut

Live & Continuous Monitoring



- No need to waste time taking manual readings
- No need to manually download readings from data loggers
- Automatically gathers and stores readings from sensors
- Live readings can be viewed at a glance on the **Base Plus**, or on the PC

Flexible Alarm Options



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

- Visual and audible alarms on **Base Plus** 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

Easy Data Access and Reporting



- Data is easily viewed and managed in user friendly software
- Reports and graphs can be easily created and distributed in a variety of Windows® formats, e.g. Excel, PDF, and HTML
- Single or multi user software
- Optional automatic calculation functions for statistical analysis of data and industry specific parameters, such as 'Mean Kinetic Temperature' and 'Pasteurisation Rates'

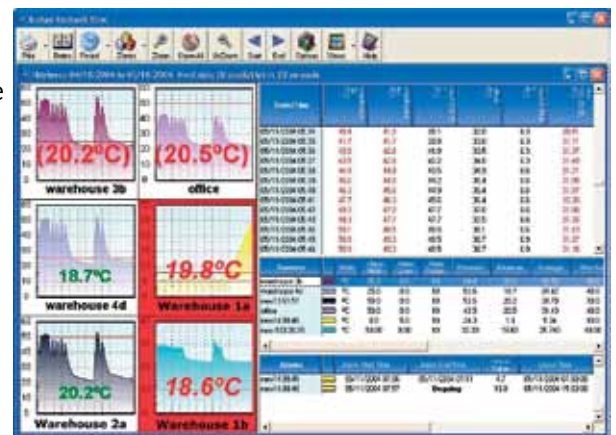
Assists Regulatory Compliance

Used as part of GMP and due diligence systems, assisting compliance with legislation such as;



- HACCP, MHRA standards CPA, 21CFR Part 11, ISO9001/2000, Human Tissue Regulations

The 'Extra-Secure' software version is used extensively by the pharmaceutical industry to help meet 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.



System Information

Measurement

Thermistor (internal sensor)	-40°C to +70°C	+/- 0.5°C	Optional calib +/- 0.2°C
Thermistor (external probe)	-80°C to +140°C	+/- 0.5°C (between -40°C to +85°C)	
PT100	-200°C to +450°C	+/- 0.1°C to +/- 0.5°C	
Humidity	0% to 100% RH	+/- 2%	
Door Opening Events	Monitors total time a door has been open		
Other Parameters	E.g. CO2, pH, flow, Pressure via a 4-20mA adapter		
Expected Battery Life	5 years (For continuous use of internal sensor above +30°C and below -25°C contact your supplier for advice)		
Waterproof and dustproof	IP68 (IP67 with external probe)		

Wireless Communications

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

Data Storage & Communication

Memory	Scout & Base Unit memory ensure data integrity
Connectivity	Ethernet, USB, RS232, Modem, BMS (relay/4-20mA outputs), GSM
Power Backup	Backup batteries in Base and Echo ensure no loss of data during periods of power loss
Database Format	Microsoft® SQL database allows easy integration with other PC tools

Alarms

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

Software

Available in Single User, Network, and Extra Secure (21CFR) versions
Simple reporting of current and historical data
Data from multiple sites or departments can be managed by a single system
Compatible with Windows Vista®, 2000®, XP® Home (small systems only), XP Pro®, 2003 Server®



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