

The logo for ICESPY SYSTEM 5 features a stylized circular icon on the left, composed of concentric circles and a central dot, resembling a signal or sensor. To the right of the icon, the text "ICESPY" is written in a bold, blue, sans-serif font, followed by "SYSTEM 5" in a larger, grey, sans-serif font. A registered trademark symbol (®) is located between "ICESPY" and "SYSTEM 5".

ICESPY[®] SYSTEM 5

SCOUT

Features and Specification

Overview

- The SCOUT is one of the sensor and logger component of an IceSpy *System5*. A typical *System5* comprises of a number of SCOUT, SCOUT_{PLUS} units, one or more BASE units and PC with special PC application software. Optional ECHO and external sensors are also available.
- The SCOUT is a combination of one temperature sensor (Single channel), housed together with power source (battery), radio transmitter, real-time clock and data storage facilities.
- The SCOUT comprises a single PCB mounted within a custom plastic enclosure. The enclosure is ultrasonically welded to form a watertight enclosure. An external antenna is over moulded onto the plastic case. A wall or shelf mounting fixture is provided as an integral part of the design.
- There is an internal temperature sensor (-40°C to +70°C) in all units.
- All communication such as upload of settings and download of data is via radio link
- Radio range: up to 1000 metres in free space
- The SCOUT is in continual communication with other elements of *System5*



Functions

- Measurement, storage and transmission of accurate temperature readings at predefined intervals
- Automatic fixed recording intervals of 10 minutes and 1 hour
- Automatic and continual broadcast of current data to BASE units (optionally via ECHO units) every 1 minute (approx)
- Alarms:
 - Yellow LED flashes every 10 seconds to signify correct operation
 - Red and Blue LEDs operate during radio communication activity
- Can be contacted (using *System5* PC application and BASE or BRIDGE unit) to download all stored data

Data

- Temperature accuracy EN 12830 Class 1
- Temperature accuracy (internal sensor)
 - +/-0.5°C between -40°C and +70°C
- optional calibration +/-0.2°C between -40°C and +70°C
- Unique fixed serial number pre-programmed into each unit.
- Overwrites oldest data when full
- 4000 date/time/temperature records, divided between two separate logging intervals:
 - 2000 records with 10-minute data, covering the last 13+ days;
 - 2000 records with 60-minute data, covering the last 80+ days.
- Calibration data table. Can be reconfigured (by radio link) for calibration offsets at 64 distinct points
- Build level data (software and hardware versions) retrievable by radio link

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SCOUT

Features and Specification

Interfaces

- Low-power Radio :
 - Frequency: 433.9 MHz (UK/Europe), licence-free band. R&TTE harmonised standard
 - Power: max 10mW, duty cycle <0.1%
 - Transmission rate (broadcast mode) approx. every 60 seconds
 - Length of radio packet approx. 20-30 ms
- Setup (configuration) options selected on PC and transmitted by radio link via BASE unit
 - Calibration data for temperature sensor (authorised users only)
- Download time approx 300 records per second, fully error-checked –actual download speed will vary depending on radio link strength
- Download includes full configuration details:
 - unique IceSpy recognition,
 - serial number,
 - received signal level,
 - build standard hardware,
 - software version number,
 - CRC data check value
 - calibration (authorised users only)
- Information transmitted in broadcast:
 - unique IceSpy recognition,
 - serial number,
 - latest value, e.g. temperature
 - CRC data check value.

Environment / Mechanical / Electrical

- Climatic Environment EN 12830 Type D
 - Operating temp. range: -40°C to +70°C, humidity 0-100%.
 - Storage temperature range: -40°C to +85°C
- Internal sensor type : thermistor NTC Curve matched
- Dimensions: Body length 120mm plus antenna 150mm approx.
- Case: ABS with rubber over-moulding for sealing antenna and LEDs
- Weight: 80g
- Dust / Waterproofing: IP68
- Multi-purpose mounting clamp for secure fixing
- Battery Sealed into unit, Expected Life 5 years, depends on conditions of use