

Selsium Ward Monitor



Drug storage temperature alert 24/7

Many thousands of pounds worth of medicines are held within refrigerated and dry storage areas within Wards and Clinics.

If you are manually recording temperatures once a day your fridge could have been seriously out of specification several times without anyone noticing.

Temperature excursions can have a serious effect on the contents of a fridge which could lead to a patient being treated with degraded or ineffective drugs. So while nursing staff care for patients who can ensure these conditions remain safe?

Selsium is designed to keep your drugs safe from damage and the patients under your care safe from harm, freeing up your staff's time to focus on providing care.



Compatible with

IceSpy Notion Pro
and
Hanwell Synergy



1. Temperature & door sensor measurements



2. Wireless real-time alerts 24/7



3. Automatic report to local printer*



4. Management access to software & reports

Benefits

- Assists with national regulatory requirements such as MHRA, GDP, GMP and GCP
- Maintains product quality and assists with eliminating product waste
- Reduce errors resulting from manual checks
- Eliminate time spent taking manual readings
- Alleviate audit stress with easy to access historical reports

Features

- Receive immediate alerts direct to a local printer
- Temperature and door alarms
- User replaceable battery in all transmitters
- Wall/fridge mounted bracket incorporated into case designs
- Software locally installed or hosted cloud version available if required
- User friendly installation and software
- Complies with RoHS and WEEE EU directives
- Carries CE Marking
- Complies with BS EN 12830
- Works with existing IceSpy Notion Pro and Hanwell Synergy software - or use as a standalone system
- Traceable and UKAS calibratable

Applications

- Drug storage
- Blood storage
- Refrigerated storage
- Ambient storage

*Printing not available on hosted system

WHY SELSIUM?

There are many reasons why a fridge may not function correctly:

- Power failure or accidental disconnection of the power
- Incorrect loading
- Door left ajar
- Fridge failure

Nursing staff are extremely busy people whose main focus is caring for their patients, manual temperature recording is just another task that takes up their time and due to the frequency of recording excursions will get missed.

Traditional monitoring systems require staff to constantly monitor a computer for alerts or rely on SMS or email messages. Some systems are cloud based with expensive hosting costs which go on for ever adding additional unnecessary costs.

Selsius is different. It uses proven wireless technology from the IMC Group and is supported on both Hanwell Synergy and IceSpy Notion software platforms so if your hospital already has one of these systems in other departments you can add Selsius Ward Monitor onto your existing system.

Selsius uses small wireless transmitters that are placed inside the fridge. These units transmit to a local data collection unit.

Data is then transferred over your existing Ethernet to a secure server. Having the data stored locally gives the peace of mind that your data is safe and that there are no ownership issues.

Selsius is quick and simple to install with no special tools or equipment required. The transmitters are battery powered with a battery life of around 18 months. The transmitters are also calibratable to ISO 17025 standards. The data collection unit has on-board memory and battery backup. In the event of a power failure the system will continue to monitor. This data is vital to your decision of destroying or keeping stock.

Selsius can be deployed over a few wards or clinics with just a handful of fridges or many wards with hundreds of fridges. If your Trust has remote sites or other hospitals in the Trust these can all be added to the system. Essentially there is no limit to the size of the system and there are no on-going costs other than calibration and battery replacements.

System Operation

When an alarm condition is detected a buzzer will sound to alert the staff that an alarm condition has occurred. Normally someone would need to go to a PC to

view the alarm, with Selsius that is a thing of the past. The alarm notification will be delivered to a nominated printer for the staff to deal with.

The printout has all the information required to quickly identify the problem fridge, the printout even has instructions on what to do.

Because Selsius also stores the data on a local database the system can be used by senior staff to review data and identify any potential trends that may cause problems in the future.

Senior staff can receive automated scheduled reports by email allowing them to easily manage large numbers of fridges effortlessly. Scheduled reports will identify fridges that are constantly going into alarm. This could be caused by faulty equipment or poor staff handling, the data produced allows for better management of the fridges and to order replacements before failure occurs or to improve staff training.

This all leads to better quality of service and money saving from reduced waste.



SELSIUM REPORTS



Control Device Group: Selsius

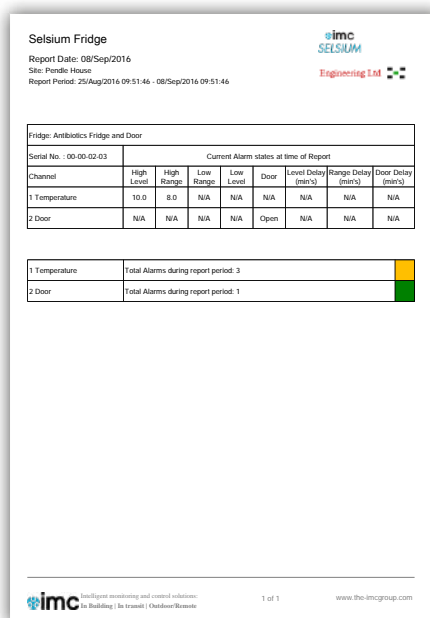
Site: Pendle House
 Sensor Name: Accident & Emergency Frigide A
 Sensor S/N: 00000104
 Channel: 1
 Parameter: Temperature
 Sensor Reading: 23.10 C
 Alarm Type: High Alarm
 Alarm Level: 20.00 C
 Date / Time: 31/May/2016 12:29:00

Action Required

Accident and Emergency Ward Medicines fridge A alarm; contact Building Services on Ext. 123

Action Alarm Printouts

Each Alarm printout has an Action Required section; the contents of which are user set on Selsius Device Group, or Selsius Sensor basis.



Selsius Frigide

Report Date: 08/Sep/2016
 Site: Pendle House
 Report Period: 25/Aug/2016 09:51:46 - 08/Sep/2016 09:51:46

Fridge: Antibiotics Frigide and Door

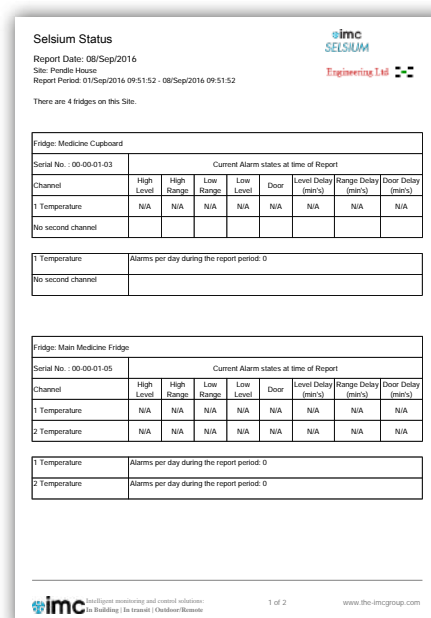
Current Alarm states at time of Report								
Serial No. : 00-00-02-03	High Level	High Range	Low Range	Low Level	Door	Level Delay (min's)	Range Delay (min's)	Door Delay (min's)
1 Temperature	10.0	8.0	N/A	N/A	N/A	N/A	N/A	N/A
2 Door	N/A	N/A	N/A	N/A	Open	N/A	N/A	N/A

1 Temperature	Total Alarms during report period: 3	
2 Door	Total Alarms during report period: 1	

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Fridge Report

The Fridge Report works with a single transmitter. It will show the current alarm limits; total number of alarms during the report period; and a red, amber, green indication of alarm regularity during the report period, this will be green less than 1 per week, amber less than 1 per day, red 1 or more per day.



Selsius Status

Report Date: 08/Sep/2016
 Site: Pendle House
 Report Period: 01/Sep/2016 09:51:52 - 08/Sep/2016 09:51:52

There are 4 fridges on this Site.

Fridge: Medicine Cupboard

Current Alarm states at time of Report								
Serial No. : 00-00-01-03	High Level	High Range	Low Range	Low Level	Door	Level Delay (min's)	Range Delay (min's)	Door Delay (min's)
1 Temperature	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
No second channel								

1 Temperature	Alarms per day during the report period: 0
No second channel	

Fridge: Main Medicine Frigide

Current Alarm states at time of Report								
Serial No. : 00-00-01-05	High Level	High Range	Low Range	Low Level	Door	Level Delay (min's)	Range Delay (min's)	Door Delay (min's)
1 Temperature	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2 Temperature	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

1 Temperature	Alarms per day during the report period: 0
2 Temperature	Alarms per day during the report period: 0

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System Status Report

The System Status Report shows number of fridges on the site; current alarm levels for each fridge; and the number of alarms per day per fridge channel for the report period; i.e. if there are 3 alarms during a 7 day report period, then there will have been 0.4 alarms per day.

Disclaimer

The information contained herein is believed to be reliable. The IMC Group Ltd is not responsible for any incorrect or incomplete information on this datasheet and the information or product may be changed without notice. Customers should obtain and verify the latest relevant information before placing orders for IMC products.

Version 6

RADIO TRANSMITTER FUNCTIONS

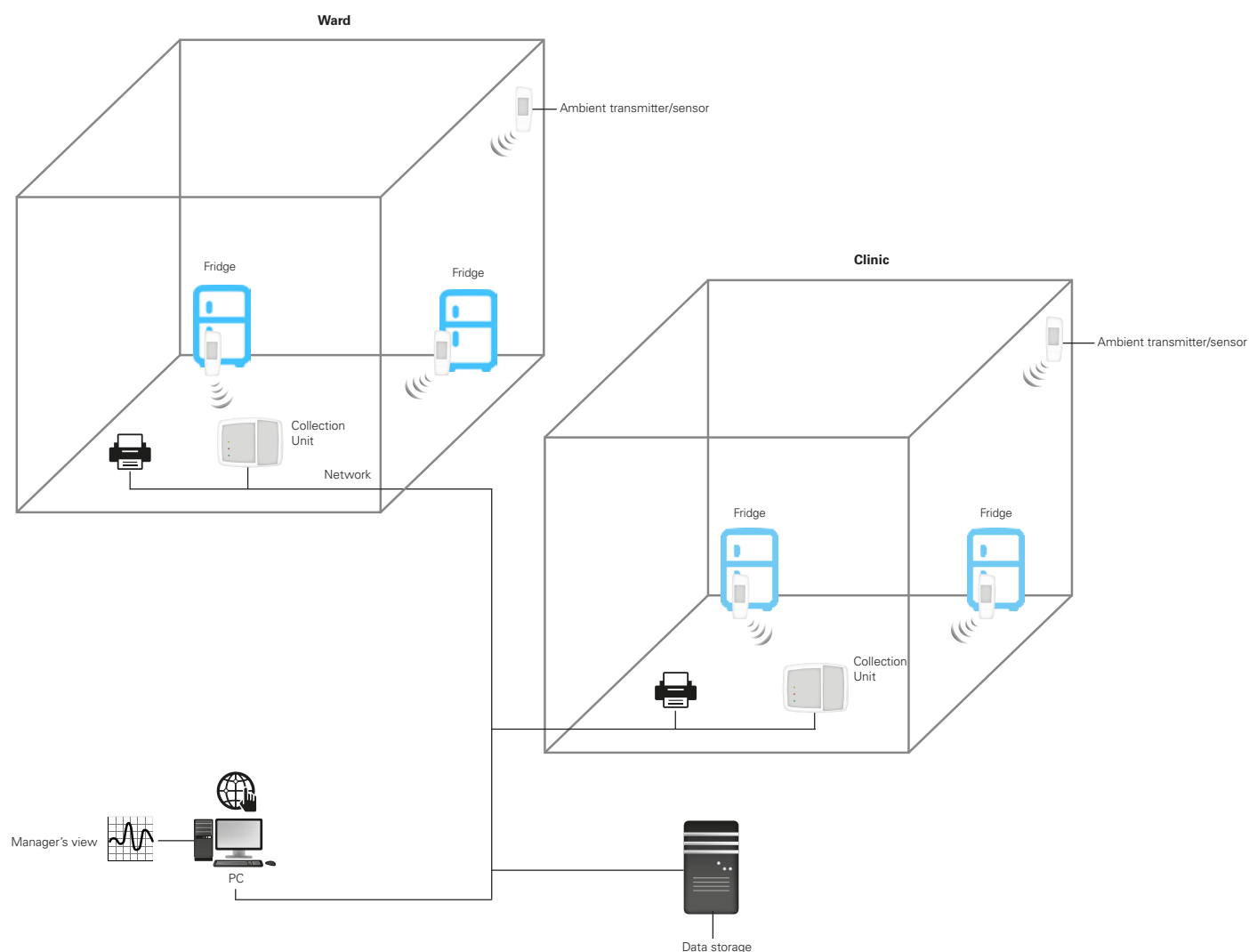
(applicable to all Selsius transmitters)

Frequency:	433-434 MHz band.
Radio Power:	Max 10mW, duty cycle <0.1%
Radio Range:	300mtrs over open ground
Case Materials:	ABS
Battery:	1.5V AA Lithium (IMC only recommend the approved and tested Energizer Ultimate Lithium L91 (IMC stock No.G301) 1.5V AA Alkaline (not recommended for use below 0°C). Duracell ID1500-10 (alkaline) (IMC stock No. 88705). Battery life will be reduced at low temperatures.
Battery Life:	18 months plus using recommended Lithium battery (dependent on format of data received and operating environment)
Hardware Required:	- Data collection unit - Radio transmitter

GENERAL INSTRUMENT SPECIFICATIONS

Dimensions:	Body Length: 128 x 64 x 33mm
Weight:	130g including battery
Power Supply:	Enclosed battery 1 x 1.5V AA Lithium (user replaceable)
Case Material:	ABS
IP Rating:	IP65
Software requirements:	Synergy v.1.61 or Notion Pro v.1.31

SCHEMATIC



SE-TH001F1

SELSIUM AIR TEMPERATURE TRANSMITTER



INSTRUMENT SPECIFICATIONS

Internal Temp. Sensor:	Semiconductor
Internal Temp. Range:	-30°C to +50°C
Accuracy:	±0.5°C
Resolution:	0.1°C
Instrument Operating Temperature:	-30°C to +50°C
Instrument Storage Temperature:	-40°C to +85°C

SE-THD01F1

SELSIUM AIR TEMPERATURE TRANSMITTER FOR DOOR SWITCH

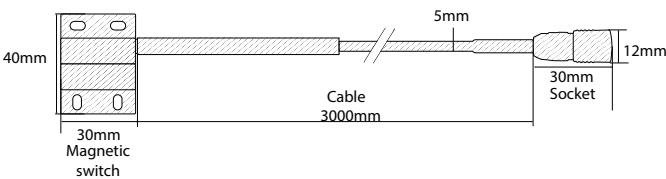
PROBES: DOOR SWITCH INTERFACE CABLE (3MTRS CABLE)



INSTRUMENT SPECIFICATIONS

Internal Temp. Sensor:	Semiconductor
Internal Temp. Range:	-30°C to +50°C
Accuracy:	±0.5°C
Resolution:	0.1°C
Door switch:	Magnetic reed switch (purchased separately)
Door switch cable:	3 mtrs
Instrument Operating Temperature:	-30°C to +50°C
Instrument Storage Temperature:	-40°C to +85°C

Door Switch:



SE-TH002F1

SELSIUM AIR TEMPERATURE TRANSMITTER FOR
REMOTE THERMISTOR PROBE

PROBES: THERMISTOR PROBE 100MM X 4MM WITH 1.5MTRS CABLE
OR THERMISTOR PROBE 100MM X 4MM WITH 3.0MTRS CABLE



INSTRUMENT SPECIFICATIONS

Dimensions:	165 x 65 x 35mm (40 including mounting bracket)
Weight:	150g including battery
External Temp. Sensor:	Curved matched thermistor (purchased separately)
External Probe Temp. Range:	-40°C to +100°C
Accuracy:	±0.5°C
Resolution:	0.1°C
Probe Cable Length:	1.5M
Instrument Operating Temperature:	-30°C to +50°C
Instrument Storage Temperature:	-40°C to +85°C

SE-THD02F1

SELSIUM AIR TEMPERATURE TRANSMITTER FOR
REMOTE PROBE + DOOR INDICATOR

PROBES: THERMISTOR PROBE 100MM X 4MM WITH 1.5MTRS CABLE
OR THERMISTOR PROBE 100MM X 4MM WITH 3.0MTRS CABLE
+DOOR SWITCH INTERFACE CABLE (3MTRS CABLE)



INSTRUMENT SPECIFICATIONS

Dimensions:	165 x 65 x 35mm (40 including mounting bracket)
Weight:	150g including battery
External Temp. Sensor:	Curved matched thermistor (purchased separately)
External Probe Temp. Range:	-40°C to +100°C
Accuracy:	±0.5°C
Door switch:	Magnetic reed switch (purchased separately)
Door cable:	3 mtrs
Resolution:	0.1°C
Probe Cable Length:	1.5M
Instrument Operating Temperature:	-30°C to +50°C
Instrument Storage Temperature:	-40°C to +85°C

SE-NR001F1

SELSIUM DATA COLLECTION UNIT



INSTRUMENT SPECIFICATIONS

Dimensions:	195 x 148 x 45mm
Weight:	450g
Case materials:	ABS 0-100% RH non-condensing
IP rating:	IP53
Operating Temp:	0°C to +40°C
Storage Temp:	-40°C to +85°C
Radio Frequency:	433-434MHz Band
Power Supply:	12VDC via external universal power supply. Power supply included. (IMC recommend only IMC approved power supplies stock code: G422)
Battery Back Up:	Up to 3 days
Battery Type:	7 x 1.5V NiMH Pack
Memory Back-up:	3 days up to 10 sensors
Communications:	TCP/IP Via RJ45 connector Wi-Fi option available
Outputs:	Relay 1 Common Alarm (NO or NC) Relay 2 Power Failure (Held closed when powered) Both relays volt free RS485
LED Indication:	Red (Alarm) Yellow (Network Comms) Green (Power/Radio Comms)
Audio indicators	Buzzer

SE-RP002F1

SELSIUM DATA REPEATER UNIT



Dimensions:	195 x 148 x 45mm
Weight:	450g
Case materials:	ABS
IP rating:	IP53
Operating Temp:	0°C to +40°C
Storage Temp:	-40°C to +85°C
Radio Frequency:	433-434MHz Band
Transmitter Power:	10mW
Communications:	2 way radio
LED indication:	Red (RX) Yellow (TX) Green (Power)
Battery backup	Up to 2 days

Note: Maximum of 2 repeaters per system.