TRANSAFE TECHNOLOGY
SINCE / DEPUIS 1985
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Cold-Chain Transport System

End to end wireless temperature monitoring

The cold-chain transport system can easily be used in conjunction with existing IceSpy Notion temperature systems used within distribution centres to generate a unique closed-loop wireless monitoring solution specifically for end to end cold chain protection.

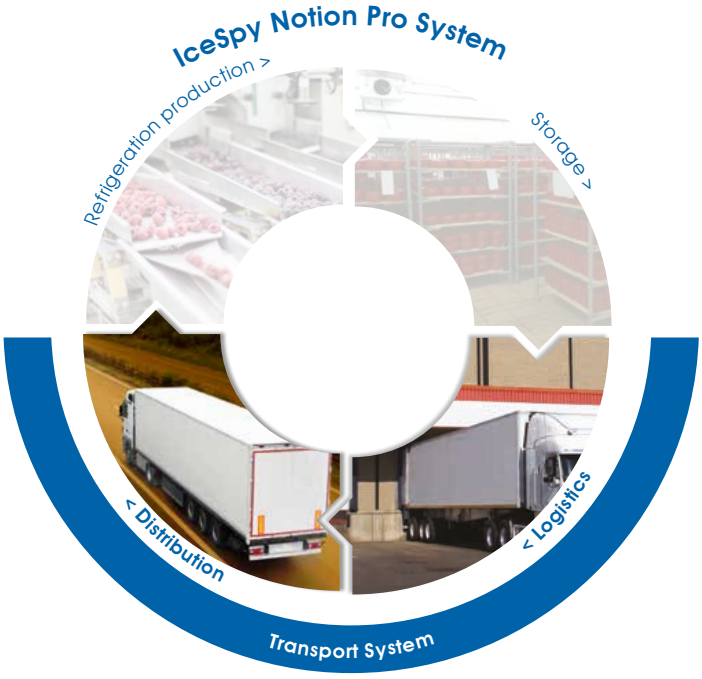
Innovation experts

Features

- Complete cold chain audit trails from one system
- Use standalone or with existing IceSpy Notion pro systems within distribution centres
- Completely automated data collection
- Temperature range:-30°C to +50°C
- Transmitters log up to 1 or 4 days
- User replaceable batteries
- Built in mounting brackets
- Complies with BS EN 12830
- Complies with RoHS, EU directives and WEEE
- Carries CE Marking

Benefits

- Eliminates the need for retrospective data loggers
- Removes the need for manual downloads and hassle of integration to other systems
- Eliminates the time spent interacting with temperature hardware
- Assists with reducing risk of potentially hazardous out-of-condition situations
- Maintains product quality and company reputation
- Reduces waste
- Assists with HACCP, FDA, GMP and GDP compliance requirements



ICESPY®

BRITISH MADE for Quality

Another solution from **The IMC Group Ltd.**
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Tel: +44 (0)1462 688070 | Email: sales@the-imcgroup.com | Visit: www.the-imcgroup.com

Cold-chain transport system
DATASHEET

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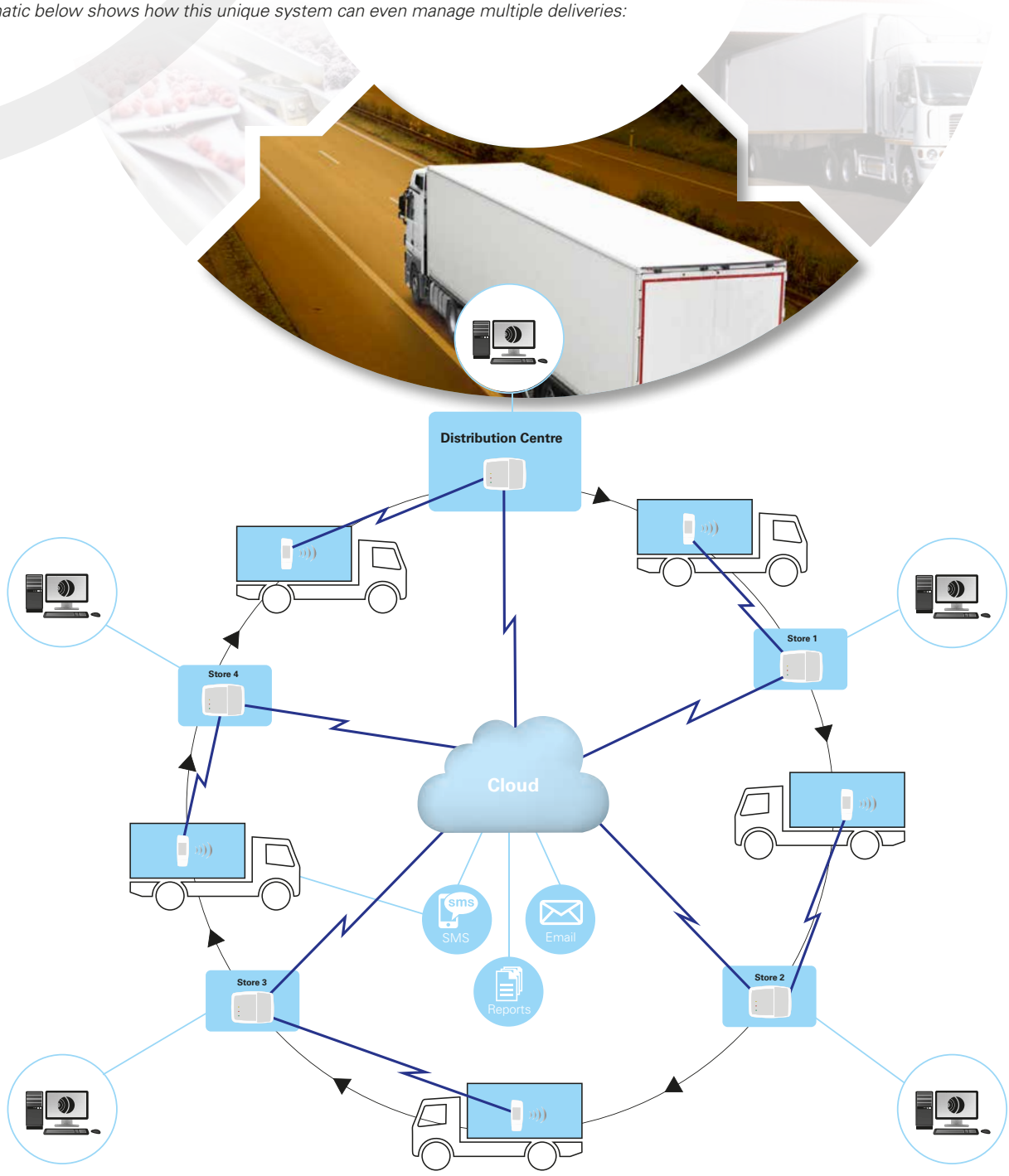
How it works

Before a vehicle leaves the distribution centre a wireless transmitter is attached to a pallet or lorry. Each transmitter will log temperature data at 10 minute intervals for up to 1 or 4 days (depending on requirements). On arrival either back at the same distribution centre or a store networked to the main system transmitters will immediately and automatically download data without the need for manual interception.

The schematic below shows how this unique system can even manage multiple deliveries:



Version 1

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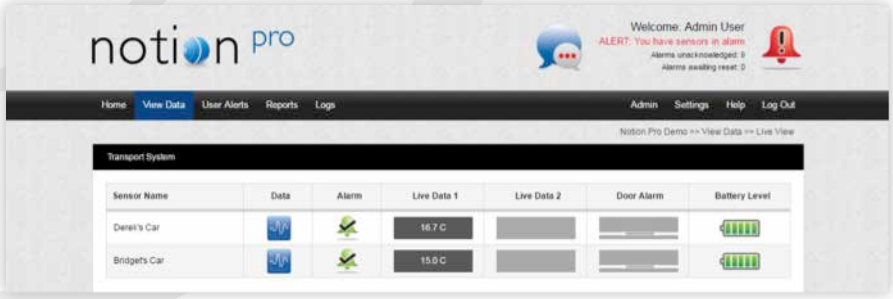
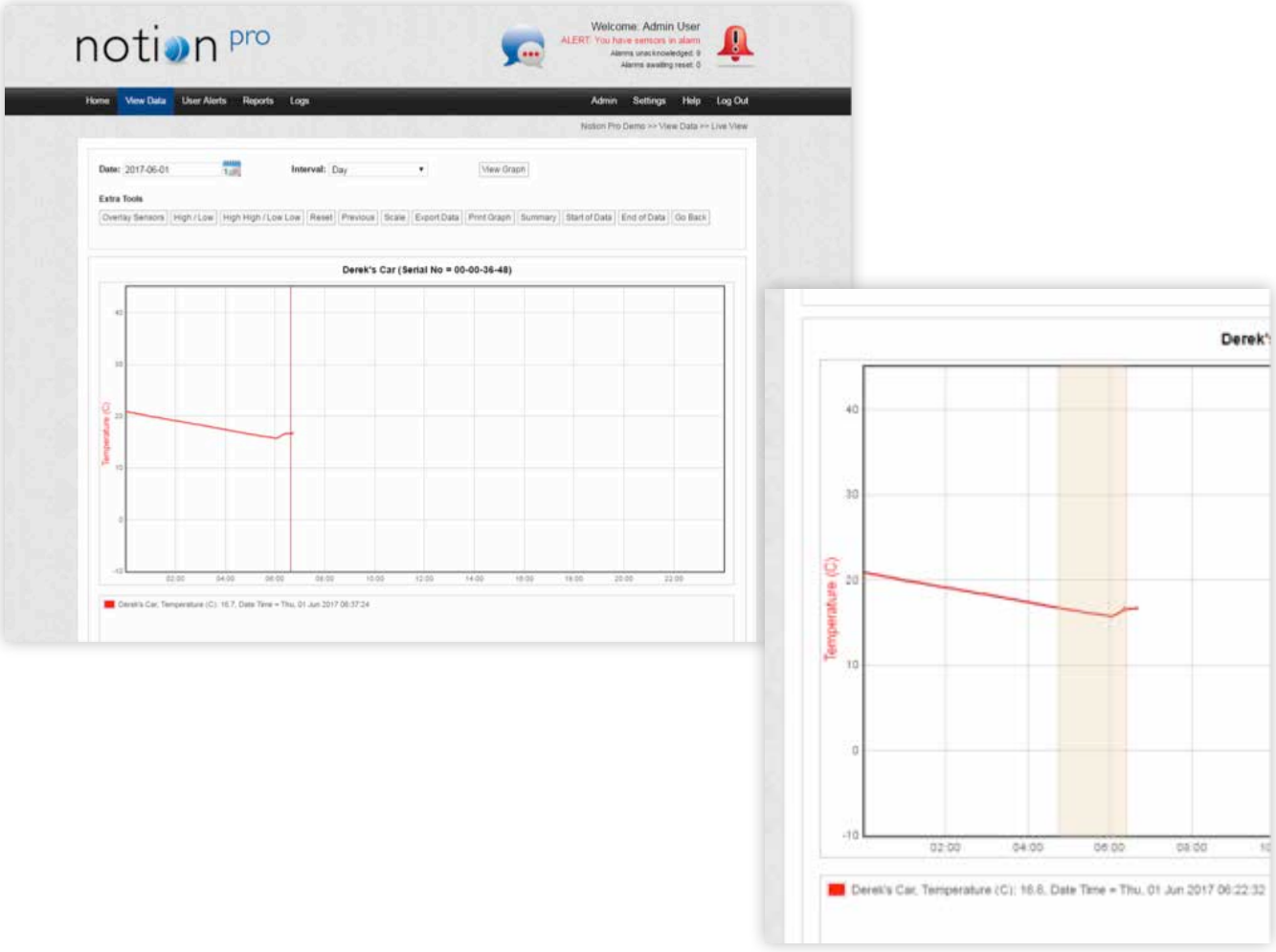
Software

Overview page with traffic light alarm system, LIVE temperature data, door events and battery life.



Graphical data with interactive pin-point time and temperature. Drag and hold to zoom into areas of interest.



A gap in data will appear as a transmitter leaves the depot but will automatically backfill when it reconnects to a system base unit.

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Hardware

TRANSPORT BASE

IN-TB001F4 – (BASE FREQUENCY A)
IN-TB001F5 – (BASE FREQUENCY B)
IN-TB001F6 – (BASE FREQUENCY C)

Transport Base

The Transport base receives radio signals from the Notion Pro Transport Transmitters and passes them over a network to the Notion Pro software.

Key Features

- Wall mountable.
- Internal aerials as standard – external aerials for the USA variate.
- Red LED for alarm (normal state off), green LED for power (normal state on/flashing), 1 yellow LED for communications (normal state on). See also section 2.1.1.
- Mains powered from supplied adaptor.
- TCP/IP communications.
- Two on-board Relays, one configured for alarm activation, one for communications and power failure.
- Memory lasts for 5 days for up to 50 sensors.
- IP53 rated.
- Three different radio frequencies – Transport Base A, B and C.

INSTRUMENT SPECIFICATIONS

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 A,B and C frequency variances (Bases with the same letter cannot to be used in close proximity of each other)
Power supply:	12VDC via external universal power supply. Power supply included. (IMC recommend only IMC approved power supplies stock code: G422)
Battery back up:	None
Communications:	TCP/IP Via RJ45 connector
LED indication:	Red (Alarm) Yellow (Network Comms) Green (Power)

Note: Transport Bases will only operate with Notion Pro Transport transmitters (below)

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TRANSMITTERS

IN-TH008TV – NOTION PRO TRANSPORT TRANSMITTER WITH INTERNAL TEMPERATURE AND 1 DAY MEMORY
IN-TH006FV – NOTION PRO TRANSPORT TRANSMITTER WITH INTERNAL TEMPERATURE AND 4 DAY MEMORY

IN-TH007FV – EXTERNAL TEMPERATURE (THERMISTOR) - 4 DAY MEMORY

IN-TH009FV – EXTERNAL TEMPERATURE (THERMISTOR) - 1 DAY MEMORY

TECHNICAL SPECIFICATIONS

Frequency:	433-434MHz band Frequency hopping for greater security
Radio power:	Max 10mW, duty cycle >0.1%
Radio range:	300mtrs over open ground
Software required:	IceSpy Notion Pro
Case material:	ABS
Operating temp:	-30°C to +50°C
Storage temp:	-40°C to +85°C
Battery life:	Up to 1.5 years (depending on use)
Battery:	1.5V AA Lithium*1 1.5V AA Alkaline (Not recommended for use below -10°C) *2 *1 – IMC only recommend the approved and tested Energizer Ultimate LithiumL91 (IMC stock No. G301 *2 – Battery life will be reduced at low temperatures Duracell ID1500-10 (IMC stock No.88705)
Hardware required:	Transport Base Network Receiver (A,B or C frequency versions)
Logged data:	1 or 4 day versions available Transmitters 'wrap' when the memory is full; over writing the oldest data with new logged data values.
Measure/log interval:	10 minutes

Note: The transport system does not work with repeaters.

Transmitters

The available sensors can monitor temperature and door alarms.

All transmitters can be mounted or free standing, as required. As far as possible, the transmitter units should be placed where they will not be subject to electromagnetic interference and where they will not be shielded by walls, bulkheads, doors, metal structures, electrical equipment etc. All units can operate within a-30°C to +50°C temperature range. All Notion Pro Transport Transmitters can communicate with any of the Notion Pro Transport Base (A, B or C).
All units have user-replaceable 1.5V Lithium AA batteries. These have an expected life of 6 months or more, and work over-30°C to +50°C temperature range. 1.5V AA alkaline can be used but with a reduced battery life and a reduced operating temperature range (0°C to +40°C).

The Sensor will log values every 10 minutes, once it has logged 2 values (20 minutes) it will attempt every minute to connect to a Transport Base. Once connected it will transmit all logged values and if received correctly will delete the logged data records. This means in practice that the shortest Journey between loading bays needs to be greater than 20 minutes to receive data, at that loading bay.