Temperature Monitoring of Pharmaceutical Products

Alfakom integrates ELA Innovation temperature sensors into the cold chain traceability solution

Alfakom offers innovative solutions for measurement recording with temperature sensors.

Alfakom's system takes care of you and keeps you informed about everything!

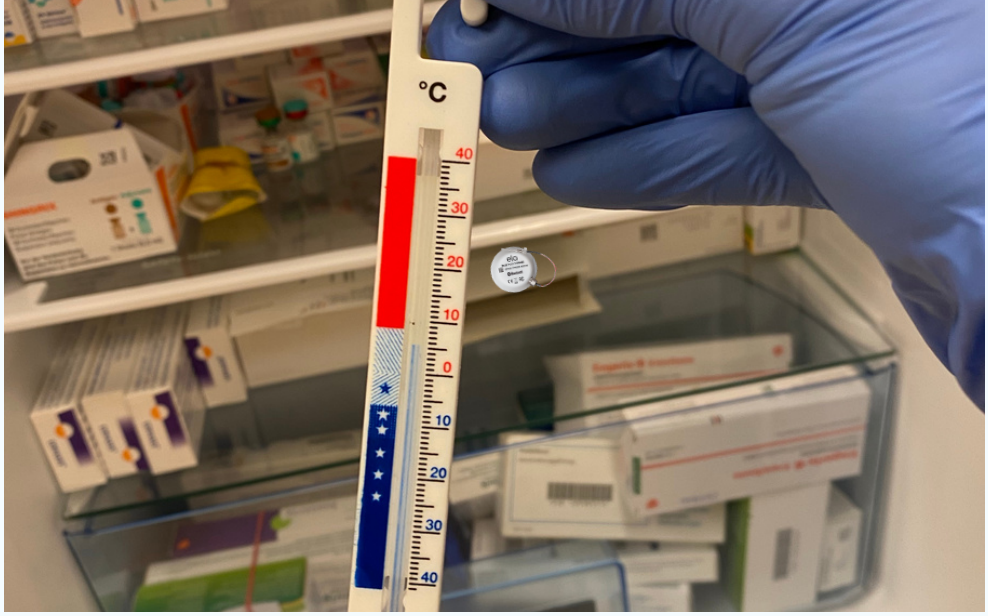
Services

- Continuous **updates** about any sudden changes in **temperature** or **humidity**
- Notification when **predefined limits** are exceeded, so you can act immediately
- Notification via **email, sms or push notifications** in your application
- Multiple **notifications**

ALFAKOM

ela INNOVATION

2310 767777 info@alfakom.gr www.alfakom.gr Solonos 36-38, Thessaloniki



Why temperature monitoring of pharmaceutical products is important?

The traceability of the conservation temperature of pharmaceutical products is an important issue for the pharmaceutical industry. It is necessary to maintain this type of products at the right temperature and thus preserve their properties.

Poor management of storage temperatures represents several risks for medical products:
Product ineffectiveness, toxicity or alteration. If the authorized temperature threshold is exceeded, every second counts.

To adress this challenge, laboratories, pharmacies and other storage centers for pharmaceutical products are equipped with real-time temperature monitoring solutions.

ALFAKOM.

2310 767777 info@alfakom.gr www.alfakom.gr Solonos 36-38, Thessaloniki

Temperature monitoring of vaccines

Vaccines are vital in preventing many diseases. Therefore, effective solutions are required to ensure that they are delivered in proper quality.

Based on World Health Organization estimations, approximately half of the vaccines distributed around the world, unfortunately go to waste. What makes them such sensitive cargo?

First and foremost, is the temperature at which vaccines must be stored at. It can range from 2-8°C to -80°C (eg mRNA vaccines) depending on a specific drug and their short or long term storage.

Bluetooth temperature sensors are the key in ensuring that the required temperature for the maintenance of the vaccines is preserved.

ALFAKOM

2310 767777 info@alfakom.gr www.alfakom.gr Solonos 36-38, Thessaloniki

How does temperature monitoring for pharmaceutical products really work?

From a technical point of view, the temperature monitoring solution is based on a set of wireless temperature sensors installed in pharmacy and laboratory refrigerators. 100% autonomous, these sensors will measure and record temperatures at regular intervals (logging time, limits and calibration).

Equipped with the Bluetooth Low Energy technology embedded in these sensors, the temperature history can be downloaded very easily using a Bluetooth receiver (industrial gateway).

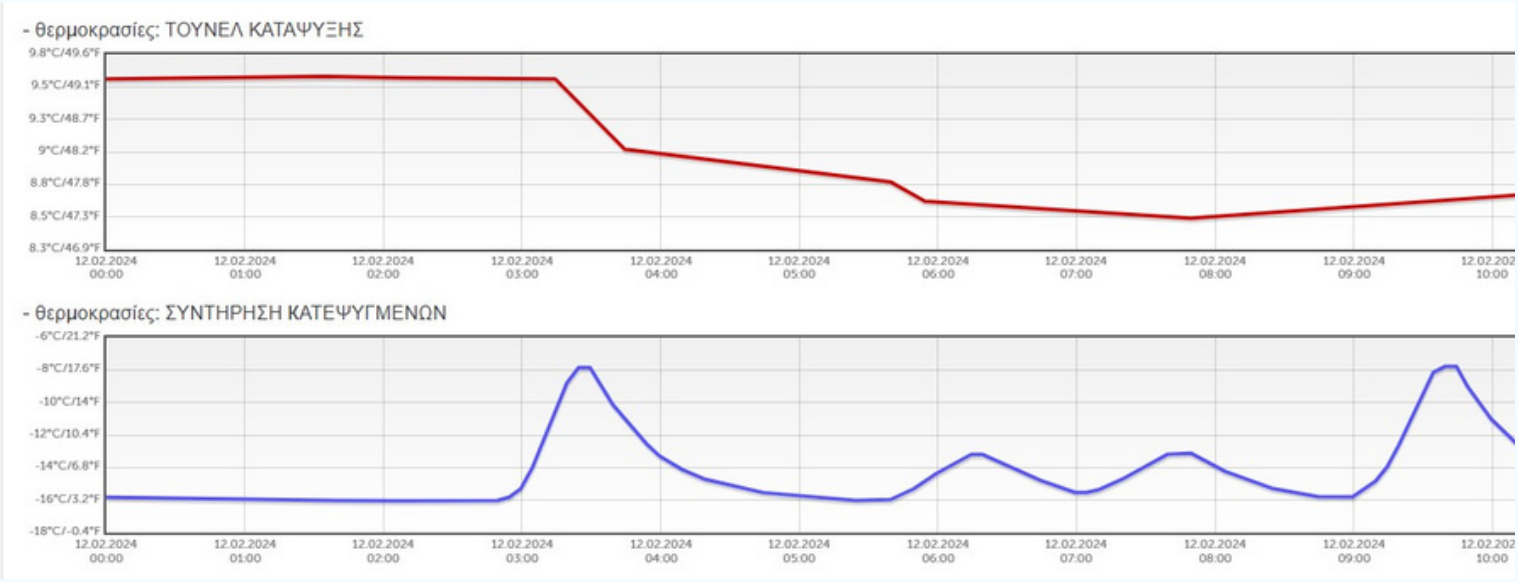
If the threshold is exceeded, an alert can be sent to the smartphone and/or PC of the person in charge of the monitoring.

ALFAKOM

2310 767777 info@alfakom.gr www.alfakom.gr Solonos 36-38, Thessaloniki

Solutions offered by Alfakom for temperature monitoring

Alfakom offers a complete solution for recording and monitoring temperatures at various points of the cold chain. Our customers can adjust the frequency of measurements according to their needs and have the possibility to receive notifications immediately via email, mobile notification and SMS in case the temperature exceeds the threshold limits that have been set. In addition, we provide an easy-to-use management environment where our customers can monitor their recording measurements in real-time and access historical temperature data and a variety of customized reports according to their needs.



Temperature Chart from Alfakom's management platform.

2310 767777 info@alfakom.gr www.alfakom.gr Solonos 36-38, Thessaloniki

Temperature Sensors

Temperature sensors from ELA Innovation, used by Alfakom, are ideal for meeting the need to monitor the storage temperature of pharmaceutical products for many reasons:

1) They are 100% autonomous

Their battery operation provides up to 7 years of autonomy, ensuring a competitive total cost of ownership.

2) They provide wide measurement range and real-time data

With a measurement range of -40 °C to +85 °C (for the Blue PUCK T EN12830 sensor) and even -80 °C to +200 °C (for the Blue PUCK T-PROBE sensor) and a parameterizable transmission period, these sensors can cover the main use cases for storing pharmaceutical products by transmitting the recorded data in real time.

ALFAKOM

2310 767777 info@alfakom.gr www.alfakom.gr Solonos 36-38, Thessaloniki

3) They have EN12830 - 2018 Certification

The sensors are COFRAC certified (EN12830 – 2018) proving their accuracy and calibration according to standards that comply with regulations. This certification is valid on an international scale since the COFRAC organization is affiliated with ILAC.

4) Quick and easy installation

Ultra simple to install thanks to the various means of fixation (high-performance double-sided sticker or support that can be screwed), these sensors can be fixed on any type of surface and do not require any wiring.

ELA BLUE PUCK T EN12830

Equipped with Bluetooth Low Energy technology, the Blue PUCK T EN12830 temperature sensor is waterproof and robust. 100% autonomous, this Bluetooth temperature sensor adapts to industrial environments to respond to cold chain traceability issues.

The Blue PUCK T EN12830 is one of the very first temperature sensors on the market to receive the latest EN12830 certification issued in August 2018. As this sensor is certified both in terms of its performance and its embedded software, it complies perfectly with the standards for the transport and storage of temperature-sensitive goods.

SPECIFICATIONS

- **Sensor type:** Temperature Sensor
- **Temperature range:** -40°C to +85°C
- **Accuracy:** Up to ± 0.5°C
- **Autonomy:** Up to 8 years
- **Size:** Ø 5,7 cm
- **Protection class:** IP68 / IP69K
- **Certifications:** EN12830, EN13486, CE,UK CA, FCC, ISED, RoHs

2310 767777 info@alfakom.gr www.alfakom.gr Solonos 36-38, Thessaloniki

ELA BLUE PUCK T-PROBE

BLUE PUCK T-PROBE, a Bluetooth temperature sensor, meets the challenges of cold chain traceability. This external probe sensor is ideal for extreme industrial environments, such as monitoring the temperature of pharmaceutical products. It offers an extremely wide temperature measurement range (from -80°C to +200°C) and is perfectly suited to the transport and storage of heat-sensitive goods.

To ensure optimum sensor performance, the housing containing the electronic PCB must be installed outside and at a sufficient distance from the cooling unit.

SPECIFICATIONS

- **Sensor type:** Temperature sensor with external cable
- **Temperature range:** -80°C to +200°C
- **Accuracy:** Up to ± 0.5°C
- **Autonomy:** Up to 7 years
- **Size:** Ø 5.7 cm (1m external cable)
- **Protection class:** Probe IP68 / Housing IP65
- **Certifications:** EN12830, CE/ UK CA, FCC, ISED, RoHs
- **Ideal for VACCINES**

2310 767777 info@alfakom.gr www.alfakom.gr Solonos 36-38, Thessaloniki

Door opening control in pharmacy refrigerators

The ideal solution to ensure the door opening control in pharmacy refrigerators is the integration of a Bluetooth door sensor. Robust and compatible with the main GPS trackers of the market, Bluetooth magnetic sensors can be easily integrated into digital solutions. In this way, the risk of door's incorrect closing is reduced and the essential temperature for the protection of the pharmaceutical products is maintained.

ALFAKOM

2310 767777 info@alfakom.gr www.alfakom.gr Solonos 36-38, Thessaloniki

ELA BLUE PUCK MAG

Equipped with Bluetooth Low Energy technology, the Blue PUCK MAG sensor is ultra compact. 100% autonomous and robust, this magnetic sensor secures the transport of goods by detecting the opening and closing of doors.

SPECIFICATIONS

- **Time:** 9 years
- **Protection class:** IP68
- **Length:** Ø 5.7 cm base
- **Height:** 2 cm
- **Detection** at 2 cm
- Magnet purchase required

2310 767777 info@alfakom.gr www.alfakom.gr Solonos 36-38, Thessaloniki

- **For any information or clarification about our products and services please contact us.**
- **We will be happy to cooperate!**

The Alfakom Team

info@alfakom.gr

2310 767777

www.alfakom.gr

ALFAKOM