

TubeSense® LabTrack

The versatile solution for tracking and monitoring patient-related materials (PRM) during the pre-diagnostic process.



Safe logistics in healthcare

When transporting biological samples, it is vital that transport conditions remain within defined guidelines. TubeSense® LabTrack now makes this possible. Based on state-of-the-art temperature sensors and user-friendly cloud-based software applications, TubeSense® offers a smart and secure logistics solution for both biological samples (such as blood and urine) and temperature-sensitive pharmaceuticals.

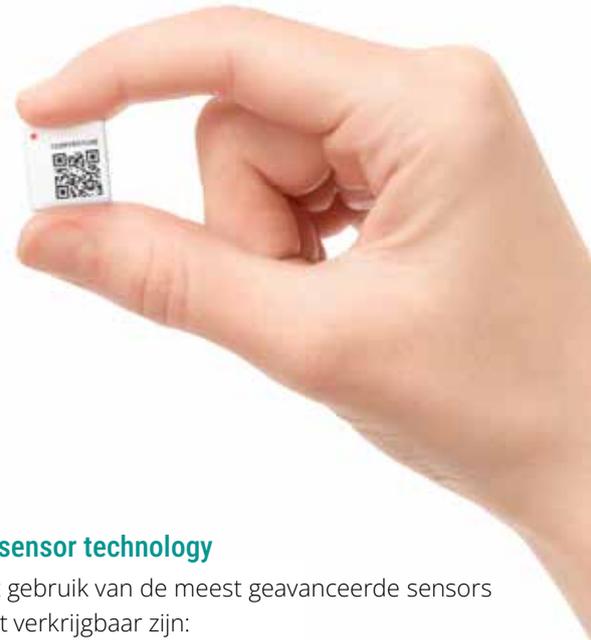
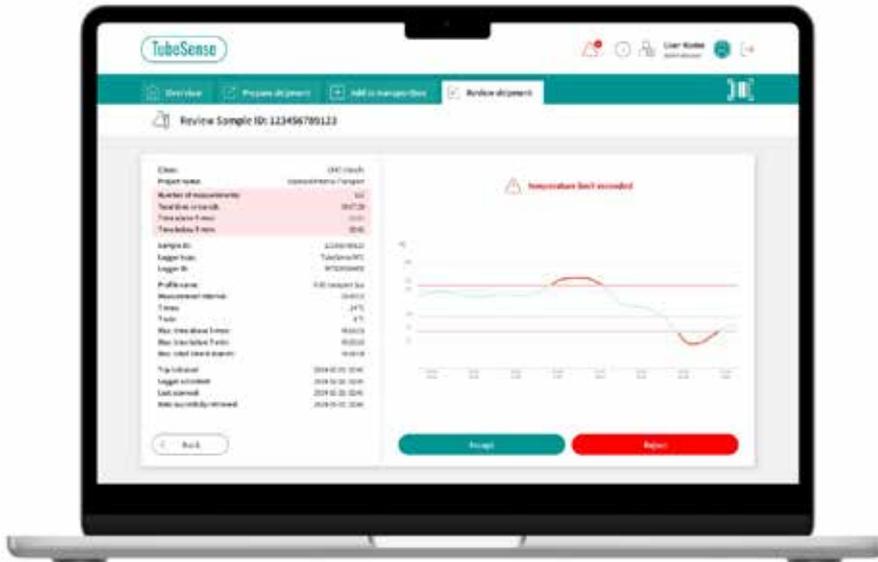
The TubeSense solutions were developed on the initiative of clinical chemist Dr. Jan Hessels to meet the growing demand for efficient monitoring and registration of biological samples in the pre-diagnostic process, both during transport and after receipt in the laboratory.

In addition to TubeSense® LabTrack, the portfolio also includes the following applications, all using the same advanced sensor technology and infrastructure:

- **TubeSense® ThermControl**
24/7 monitoring of refrigerators, freezers and incubators in your laboratory;
- **TubeSense® HomeCollect**
Monitoring transport conditions of home-collected biological samples, from patient to laboratory.

The benefits of TubeSense® LabTrack

- **Versatile**
Suitable for tracking both transport boxes and individual samples;
- **Ease of use**
Minimal handling for staff thanks to user-friendly application software (web and mobile) and easy implementation;
- **Effective alert system**
Automatic notifications when transport time or temperature limits are exceeded, based on flexible profiles that can easily be configured by the user;
- **Reliable registration and reporting**
Alerts generated by automatic advice can always be reviewed by responsible staff, with the option to deviate from the advice and provide a reason;
- **Carefree management**
Data is securely stored on the TubeSense Cloud server and easily accessible via web and mobile apps, including a highly user-friendly administrator environment;
- **Logistical support**
Tracking & tracing at location level through location scans, and online monitoring when using the TubeSense 'car kit gateway';
- **Attractive cost structure**
Choice between a one-time investment and/or monthly billing.



Easy implementation

The cloud-based TubeSense software can easily be integrated into any business process or workflow. Professional installation of the sensors is also extremely simple:

- Attach the self-adhesive sensor inside a transport box or on any other desired packaging (such as bags, envelopes, blood tubes or blood bags);
- No pairing or configuration required: the sensor is automatically recognised by the gateway;
- Measurements are transmitted directly to the Cloud via Ethernet or cellular connection (built-in SIM card); ICT support is usually not required;
- The alarm system is fully configurable, with alerts when limits are exceeded;
- TubeSense integrates seamlessly with existing quality management systems and can be linked to the LIMS.

State-of-the-art sensor technology

TubeSense maakt gebruik van de meest geavanceerde sensors die op dit moment verkrijgbaar zijn:

- TubeSense uses the most advanced sensors currently available;
- Highly reliable and accurate: measurements from -40°C to 85°C ($\pm 0.25^{\circ}\text{C}$ according to ISO 17025:2017); sensors are also available for ultra-low temperature freezers (-80°C);
- Transmits every new temperature measurement with each 'heartbeat'. Both heartbeat and measurement interval are configurable, enabling an unprecedented battery life of up to 15 years;
- Stores up to 100,000 data points offline when outside gateway range;
- Meets calibration requirements: sensors can be supplied with a 6-year valid calibration certificate
- (TubeSense also offers a self-calibration tool for easy periodic sensor verification, including reporting);
- Very compact, waterproof housing (IP68 rating), designed for the most demanding applications;
- Optional range extender ensures optimal reception even from inside closed refrigerators, freezers or incubators.

