# RELIABLE INSIGHT INTO THE FUNCTIONING OF YOUR LABORATORY EQUIPMENT

# Reduce the risk of laboratory equipment failure and record all measurements fully automatically.

LabVision is an easy-to-use platform that continuously monitors all your equipment. Whether it concerns your cleanroom, Cryo vessels, incubators or refrigerators. With LabVision you have a universal platform at your disposal to ensure the proper functioning of your equipment.

### Some features:

- Very high accuracy and security
- Easy to install (wireless)
- Extensive alarm and reporting options
- Cloudbased (automatic backups, security)
- Easy to adapt to your specific needs



AVISION <

# AVIC LABVISION® In Control of your Laboratory equipment



LabVision is a high-end management solution/tool that provides you with constant insight into the functioning of your laboratory equipment anywhere, anytime. Measurements can include:

- Core temperature of the refrigerated medicine, vaccine or drug
- Temperature of freezers or Cryo vessels
- Door contacts to signal open doors
- Room temperature and relative humidity Fine dust and CO2 concentrations
- Air pressure and differential pressure (dP)

To be able to read and monitor the already present sensors, a link can easily be realized using interfaces. Sensors can also be added to your current equipment. The system meets the requirements of legislation for an automated measuring system. LabVision collects the measurements and sends this data wirelessly to the Cloud, giving insight anywhere and at any time via your personal dashboard. The system monitors and alerts you in case of risky deviations. Alarms are automatically sent via e-mail or SMS for guick intervention. It is immediately clear where the problem occurs and what its severity is. There are many easyto-set-up possible alarm scenarios. For example, the information can easily be shared with the technical maintenance department. Many of the LabVision components are wireless, making installation very simple and easy to expand. Setting up the application according to your wishes is also easy, but if desired, your supplier can do it for you.



AND SAFE



PLUG & PLAY



2-WAY

SIGNAL

ALKALINE BATTERIES





## AVIC LABVISION

Provides you with software that gives you insight into your laboratory equipment from anywhere. Whether you want to monitor temperatures, CO2, fine particle concentrations or the differential pressure of your clean room.

LabVision is available everywhere via your desktop, phone or tablet. Reports can be generated manually or fully automatically, making compliance with laws and regulations a lot easier. All equipment is continuously synchronized with the current time, all measurements have an accurate date and time stamp. - The hardware is highly reliable and accurate. Temperature measurements, for example, have a max error of 0.25C - The hardware is universal, so practically all systems in your laboratory can be connected - Any deviations in measured values can be sent directly via an alarm. The advanced alarm module gives you complete freedom over how the alarm follow-up should take place.

- 24/7 access with an uptime of over 99.9%. All systems are fully redundant
- Combinations of LAN and 4/5G are possible
- A UPS provides security even in the event of a power failure
- All measurements are continuously backed up.
  The data is stored at different locations to ensure the highest possible availability
- The system is very easy-to-use, despite its
  advanced capabilities
- Even when you need customization, the platform
  offers various options to match the visualization
  exactly to your needs.

#### LabVision staat voor:

- User-friendliness
- Simplicity & reliability
- Security

ALARM

REPORT

## YOUR PERSONAL DASHBOARD WITH LABVISION

You can easily consult your personal MEDICAL equipment dashboard via the internet on desktop, phone or tablet. LabVision automatically generates your reports and sends them to you and to other recipients of your choice. If desired, an SMS or email can be sent if the measurements deviate too much from the desired value.

#### (Wireless) Sensor capabilities (WISE):

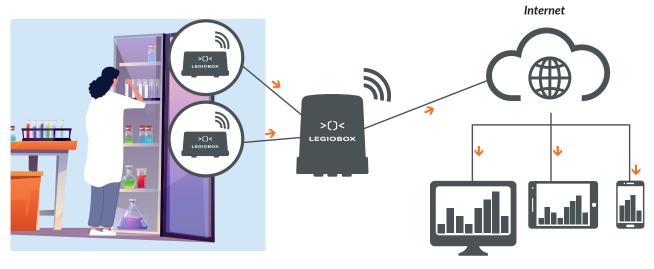
- Temperature & Product Core Temperature
- Relative Humidity
- Air Pressure
- External PT1000 / NI1000 sensors
- External 4-20mA & 0-10 Volt sensors
- Digital inputs for e.g. fault contacts, door contacts or energy and flow meters
- Fluid levels in tanks (e.g. nitrogen)

#### Gateway eigenschappen

- Standaard voor 2G-GPRS en 4G-CatM1 & NBIoT
- UPS voor bewaking van netvoeding problemen
- Avic WISE RF netwerk mogelijkheden
- Sensoren voor omgevingstemperatuur en relatieve vochtigheid en luchtdruk
- Optioneel: CO, maximaal 5000ppm
- Optineel: Fijnstof PM 0,5 / 1 / 2,5 / 4 / 10

#### Accessoirues

- Wall bracket, magnetic mount, hanging bracket, stand for easy mounting of the wireless sensors (PicoWise) and gateway (NanoGate)
- CO, sensor
- Door contacts



Measurements using PicoWise© wireless sensors The data is collected and transmitted to the data center using a NanoGate® Internet Manage your laboratory equipment with LabVision

### WHAT DOES THE SOLUTION LOOK LIKE?

With small transmitters (PicoWise) the temperature, CO2, door contacts, liquid nitrogen levels etc. will be measured. In case of temperature measurements, the product core temperature can be calculated automatically if desired, making a psychical temperature buffer a thing of the past. The wireless transmitters run on two standard AA alkaline batteries that last more than 5 years and can easily be replaced. The measurement results are continuously sent to a Gateway (the NanoGate). The transmitters have a suitable mounting option for each device and in most cases drilling is not necessary. The Gateway (NanoGate) takes care of the transfer of all measurements to the cloud. This module also measures various properties of the environment such as room temperature, relative humidity and air pressure. The data connection to the server works completely independently and uses modern mobile networks (2G&4G). A UPS battery ensures continuous operation even in case of power failure. The communication can also run through your network if you want redundancy. A redundant solution where the Gateway can fall back on 4G is more than safe!



## IoT made simple.



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