



VisioNize[®] Lab Suite Product Guide

You and Your Lab – Connected.



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Factors to Consider when Managing a Laboratory

To meet new needs and overcome challenges in laboratories worldwide, Eppendorf offers smart lab management software solutions, such as the VisioNize Lab Suite, that **increase productivity** for all routine tasks in the lab.

There is a rising need for **greater sample safety**, conformity with **increasing compliance pressures**, and **optimized lab management practices** to support a **more agile workforce**.



Sample Safety

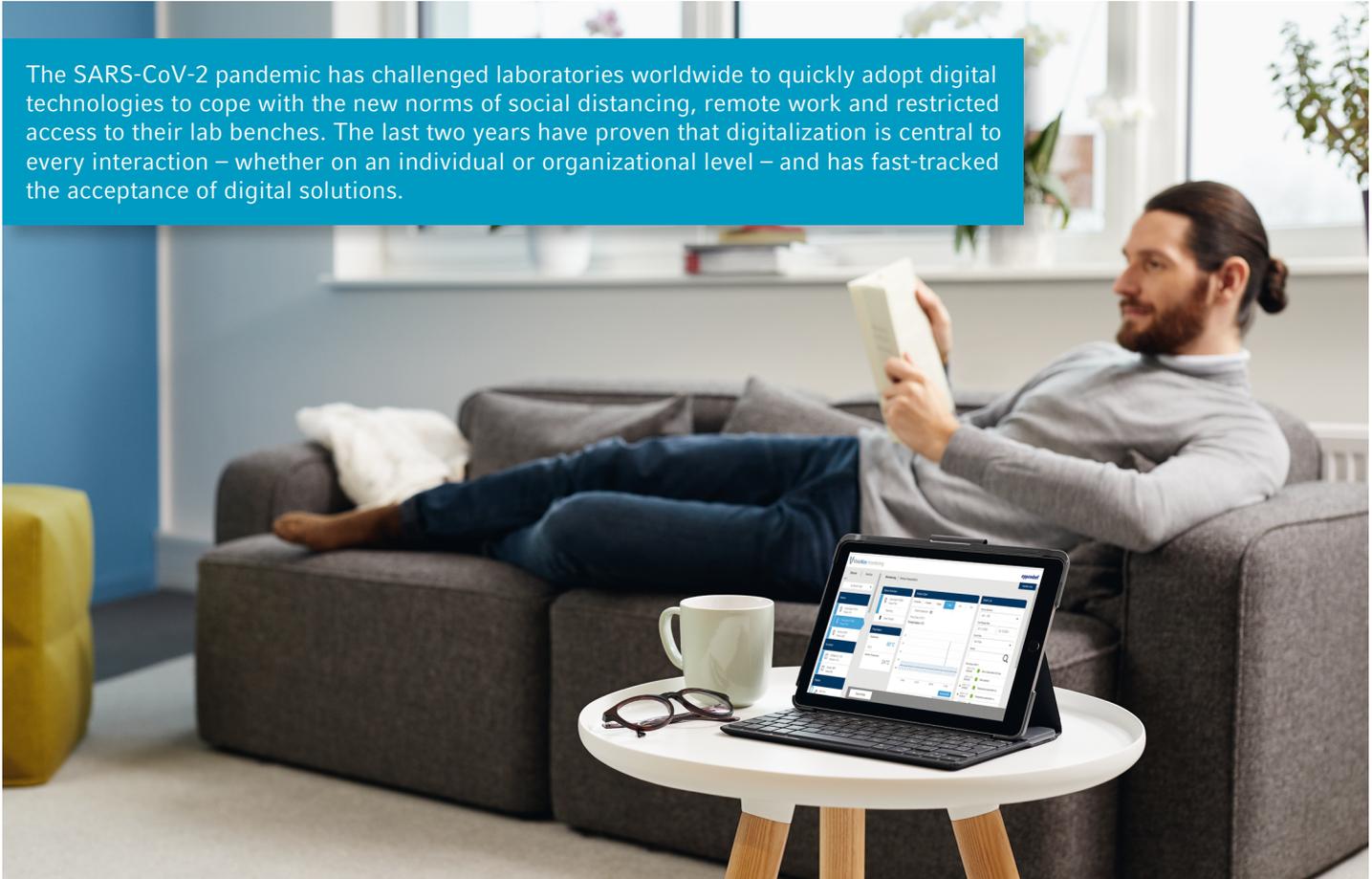


Compliance Needs



Device Performance

The SARS-CoV-2 pandemic has challenged laboratories worldwide to quickly adopt digital technologies to cope with the new norms of social distancing, remote work and restricted access to their lab benches. The last two years have proven that digitalization is central to every interaction – whether on an individual or organizational level – and has fast-tracked the acceptance of digital solutions.



What's Your Vision for Your Daily Lab Life?

Lab Manager



- > Efficiency gains and convenience in managing and equipping a lab
- > Preventing sample loss through enhanced security and traceability
- > Cost reductions while increasing productivity
- > Minimizing unplanned downtime

Lab Technician



- > Being informed of device availability: device overview, availability, user intervention needs, and documentation
- > Reduce manual steps needed to complete an experiment
- > Keep better track of experiments
- > Better collaboration and data integrity

Quality Manager



- > Reduce efforts for audit preparation
- > Quality issues due to transfers between different systems and manual steps
- > Full confidence in quality of work, equipment operations and processes when being audited

Explore the World of VisioNize®

VisioNize Lab Suite is your solution for **effective lab and device management**. Gain access to a modular range of services and decide what works for your lab. These **services integrate** together to **support you and your lab**. The suite of services is kept updated, making it a sustainable investment. As you and your lab expand over time, VisioNize Lab Suite evolves to meet your needs and is designed to **empower you** to focus on your next breakthrough.



Benefits of Visionize Lab Suite and Services



Real-Time Monitoring

Monitor your entire freezer fleet and track device status, parameters (e.g. temperature), and history from anywhere



Instant Notifications

Receive alarm and event notifications and quickly address any issues



Easy Data Access

Export device and event data, as well as logged user interactions



Protecting your Samples

Ensure the safety of your samples 24/7



Alarm Management

Track all alarm acknowledgements with time-stamped data logs



Device Connectivity

Connect and monitor all your temperature-controlled devices including 3rd party with Visionize sense monitoring kit*



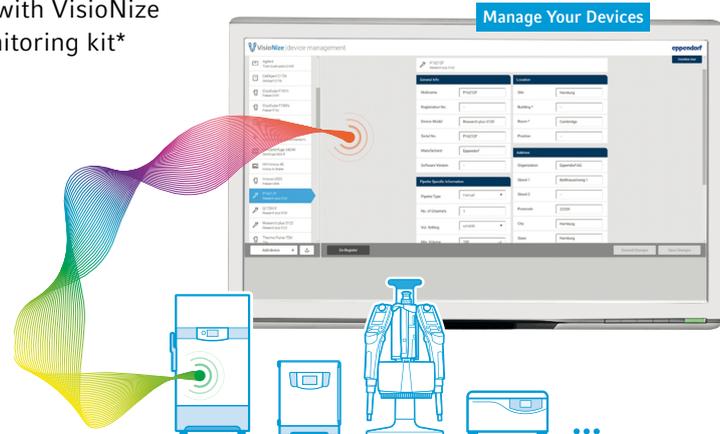
Task Management

Plan and assign device-related maintenance tasks to ensure optimal device performance



Response-Based Alarm Escalation

Define escalation schemes to individual or multiple recipient groups based on presence in the lab

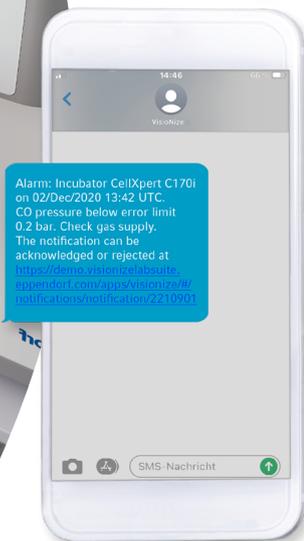


*Note: Only available in Europe and North America



Be Confident about Your Sample Safety

What is the cost of a freezer or incubator left open? Can you calculate the value of a year of your work? Don't get caught off guard in the middle of the night when there is an alarm in your lab. Remotely check your lab device performance whenever you want. VisioNize Lab Suite offers everything you need as a lab manager or scientist to start digitally managing your lab for increased sample security.



- > Receive **alert notifications** via email and SMS text messages for any kind of errors, warning, or device-related events
- > **Notifications** are easy to configure and customizable for each device
- > Be notified of different internal **errors and alarms** for precise decision-making
- > Utilize the **escalation schemes** to reroute alarms to other people in the lab and acknowledge alarms when you are taking action
- > **Manage and monitor** your entire device fleet with VisioNize sense and connect all your temperature-controlled lab devices in one place.

More Peace of Mind

Overview of all connected devices, e.g. freezers and incubators.

Monitoring dashboard of a CryoCube® F740hi freezer showing:
> Device status
> Parameters
> History chart

Received an alarm notification? Check event history and decide if you need to react!

The screenshot shows the VisioNize monitoring interface for an Eppendorf device. The left sidebar lists various devices under 'Freezer' and 'Incubator' categories. The main area is divided into several panels: 'Status Overview' for the selected CryoCube F740hi freezer, showing it is 'Running' with 'Door Closed' and a current temperature of -80°C; 'Parameters' showing ambient temperature at 24°C; 'History Chart' displaying a temperature graph over time with a notable spike; and 'Event List' showing a log of events such as 'Door closed after 0:22 min.' and 'Door opened.'

Meet Compliance Needs

Receive **support** for your **audit preparations** with VisioNize Lab Suite and **eliminate paper-based documentation** by switching to one platform for you and your lab.

The screenshot displays the VisioNize monitoring dashboard. On the left, a sidebar lists various devices including Cambridge buildings, CellXpert C170i, CryoCube Freezers, Galaxy 48R, HH Sensor, and Innova US35. The main area is divided into three panels: 'Status Overview' for CellXpert C170i showing 'Running' status and 'Door Closed' indicator, 'Parameters' showing Temperature at 37.0°C, CO₂ Concentration at 14.0%, and O₂ Concentration at 20.9%; and 'History Chart' showing a temperature graph over time. An 'Event List' on the right shows a log of events such as 'Door closed after 0:59 min.' and 'Door opened.' with time-stamped entries. A blue callout box points to the O₂ concentration value, and another points to the event list.

Support your compliance needs with a precise documentation and export* function of all device-related parameters.

All user interventions, alarms and errors are logged with time-stamped and non-editable record proving device-lifetime performance.

Meet Compliance Needs

Regulatory authorities are encouraging companies operating in pharma and biotech to **demonstrate data integrity**.

The screenshot displays the VisioNize audit trail interface. At the top left is the VisioNize logo and 'audit trail' text. At the top right is the eppendorf logo. Below the header is a filter bar with the following fields: Type (Event), Severity (All Severities), From (15.03.2021), To (22.03.2021), Who (User or Servicename), and What (Device Serial No./Nickname). A 'VisioNize User' button is also present.

Timestamp UTC	Timestamp Device Source Time	Severity	Activity User	Device	Description
2021-03-22 14:43:56	2021-03-22 15:43:56	●	Event created Device	Device Freezer HH CryoCube F740i [Lab Cambridge, Building 8] with ser.no F740FJ000019	Door closed after 0:11 min.
2021-03-22 14:43:44	2021-03-22 15:43:44	●	Event created Device	Device Freezer HH CryoCube F740i [Lab Cambridge, Building 8] with ser.no F740FJ000019	Door opened.
2021-03-22 14:42:45	2021-03-22 15:42:45	●	Event created Device	Device Freezer HH CryoCube F740i [Lab Cambridge, Building 8] with ser.no F740FJ000019	Door closed after 0:12 min.
2021-03-22 14:42:32	2021-03-22 15:42:32	●	Event created Device	Device Freezer HH CryoCube F740i [Lab Cambridge, Building 8] with ser.no F740FJ000019	Door opened.
2021-03-22 13:56:34	2021-03-22 13:56:34	●	Event created Device	Device Generic Device [Lab Panama] with ser.no 1006GI300054	Shaker device HH Innova 40 with serial number "SHAKERem8LfA" connected
2021-03-22 13:56:34	2021-03-22 13:56:34	●	Event created Device	Device Generic Device [Lab Panama] with ser.no	Shaker device HH Innova 40 with serial number "SHAKERem8LfA" selected

A callout box on the right side of the table states: "Logged activities such as user interventions, setpoint changes and performed maintenance tasks with timestamp in a non-editable record." A line points from this box to the 'Description' column of the first row.

Manage Your Activities

As lab manager, you are interested in maintaining all the **lab equipment** to avoid **device downtime** in order to keep your lab processes going. How great would it be to have **one tool to support** in managing all lab equipment?

The screenshot displays the VisioNize task management interface. On the left, a sidebar shows a list of devices under 'Device' and 'Task' tabs. The 'Device' tab is active, showing a list of devices including 'HH S44i' (Innova S44i) which is highlighted in blue and marked as 'Overdue'. Below this, there are sections for 'Ready to work' and a list of 'VisioNize box' devices.

The main content area shows details for the selected 'HH S44i' device. At the top right, the 'Maintenance status' is 'Overdue', indicated by a red triangle icon. Below this, there are three main sections: 'Tasks', 'Device Information', and 'Related Documents'. The 'Tasks' section shows a task 'Shaker yearly maintenance' with a due date of '2021-01-08' and a status of '3 days overdue'. The 'Device Information' section includes fields for 'Serial Number' (S44IIM102404), 'Registration Number', 'Location' (Building1, Cambridge), and an 'Edit Device' button. The 'Related Documents' section lists 'User Manuals (3)' and 'Certificates (3)'. At the bottom left, there is an 'Add Task' button with a plus sign icon.

Two callout boxes provide additional context: one points to the 'Overdue' maintenance status, and another points to the 'Add Task' button.

Check the maintenance status of your device and if you can use the device for your experiment.

Add customizable tasks and assign them to lab members to effectively manage your lab.

Manage Your Activities

Plan your **upcoming tasks in one tool** and receive reminders when service is due. **Never lose sight** of your device maintenance needs with the VisioNize Lab Suite. All new software updates for VisioNize touch devices, VisioNize box and VisioNize sense are available immediately through VisioNize Lab Suite. Schedule the update based on your convenience and your lab's schedule!

Pipette calibration
2 devices

Task Overall Status: *due*

Task Description

Description

Send Pipettes to Eppendorf calibration service.

Task Planning

Recurring Task

Due Every Months(s)

Remind Week(s) before

Responsible

Email-notification

SMS-notification

Devices

M450901 Research plus 3120	due in 182 days
N470061 Research plus 3122	due in 182 days

Add / Remove Device

Perform Task Delete task Cancel Save

Plan one-time or recurring maintenance tasks for all of your devices.

Get notified when a maintenance task is due.

Get a reminder for a task via email and/or SMS text message.

Getting You and Your Lab Connected

Make the **right preparations** for your digital lab. We recommend **checking** the following **before subscribing** to the VisioNize Lab Suite and its services:

1. Check the **IT prerequisites** for VisioNize Lab Suite with the [VisioNize Lab Suite Setup Guide*](#)
2. Check the **compatibility of your device** by having a look in the [VisioNize Lab Suite Device Overview*](#)
3. Check **what else is required** for connecting your lab devices, e.g., VisioNize box or VisioNize sense

For more guidance and precise planning, contact your local Eppendorf sales representative.

Find helpful tips and tricks to help you navigate your lab through digital transformation here: www.eppendorf.com/visionize

*A [list of helpful documents](#) can be found in the back including the links to the documents online.





Whether you are looking for a remote monitoring solution, an alarm or management system or ways to easily access device performance data, VisioNize Lab Suite has all the services to help you build a smart laboratory with increased sample safety, productivity and reliability.

You can easily subscribe online to receive access to the VisioNize Lab Suite: www.eppendorf.com/visionize-subscription

Choose the Plan That Meets Your and Your Labs Needs

For starters:

VisioNize Lab Suite Essential FREE (for first 3 devices)

Gain free, hands-on experience with VisioNize Lab Suite and enjoy a glimpse into the digital, connected lab. The Essentials plan covers all necessary aspects to get started to digitally manage the lab for increased sample safety.

- > Real-Time Monitoring
- > Email Notification
- > Data Access for 7 days
- > Device Data Export
- > Document Management
- > Task Management

Please note:

This plan already includes 3 licenses for connected devices right from the start. Each additional device requires an additional license.

For more peace of mind:

VisioNize Lab Suite Sample Safety+ Price / device / year

Be confident about your sample safety and guarantee smooth operation around the clock with the Sample Safety+ plan.

Enjoy the enriched feature set in VisioNize Lab Suite for more convenience!

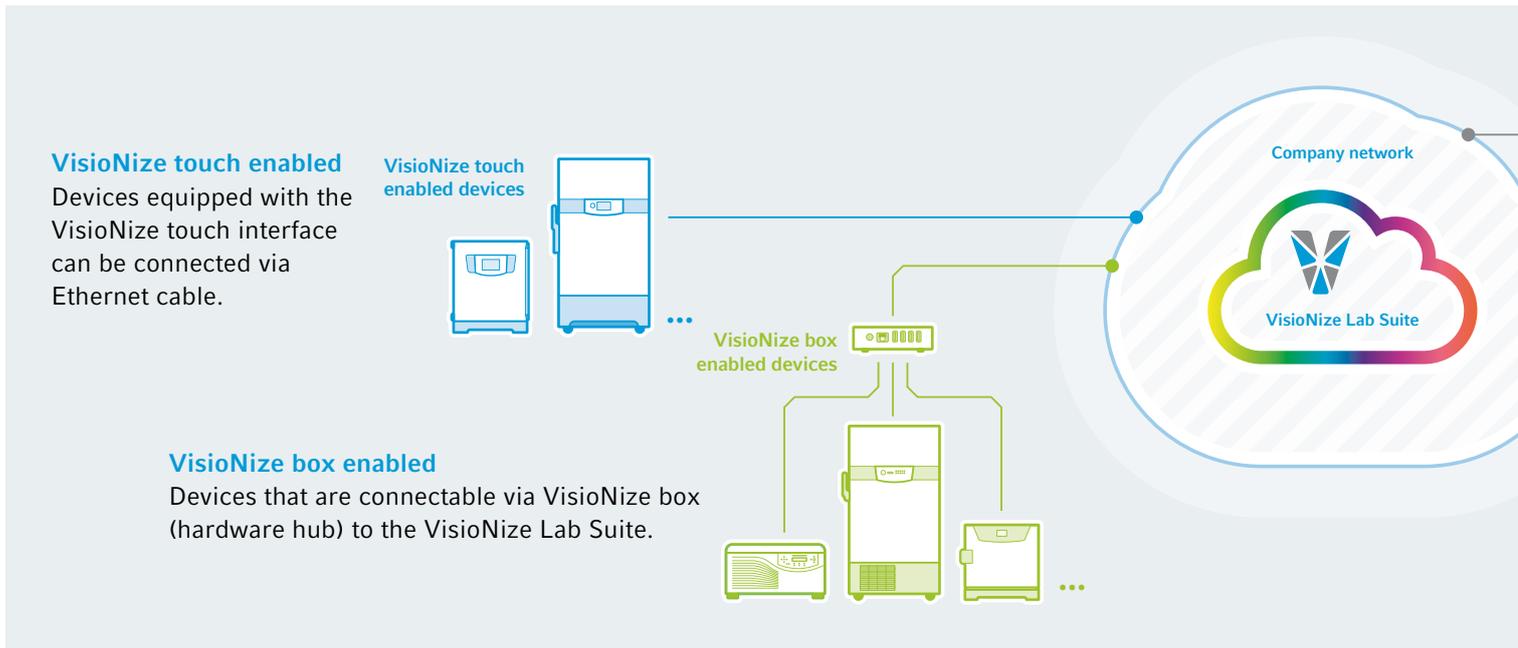
- > All features of Essentials plan
- > SMS Notifications
- > Data Access for 1 month
- > Response-Based Alarm Escalation
- > Audit Trail

Please note:

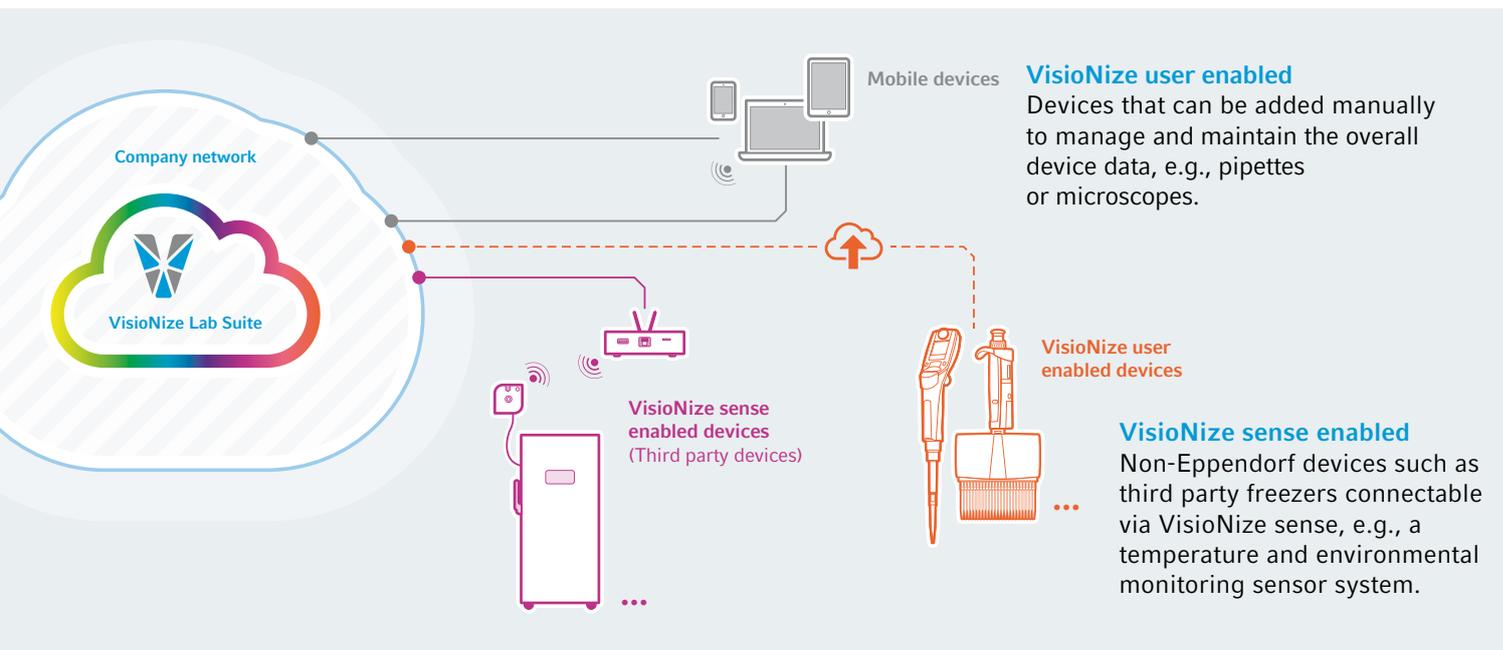
The price per device license depends on total number of connected devices.

Connecting Your Laboratory Devices

Connect your lab devices – from freezers to pipettes – to the **VisioNize Lab Suite** and utilize services such as remote monitoring and device management.



Additional connection hardware, e.g., **VisioNize box** or **VisioNize sense**, might be required. Consult us for precise planning and order placement. A step-by-step guidance is given in the [VisioNize Lab Suite Setup Guide*](#)



Mobile devices

VisioNize user enabled

Devices that can be added manually to manage and maintain the overall device data, e.g., pipettes or microscopes.

VisioNize user enabled devices

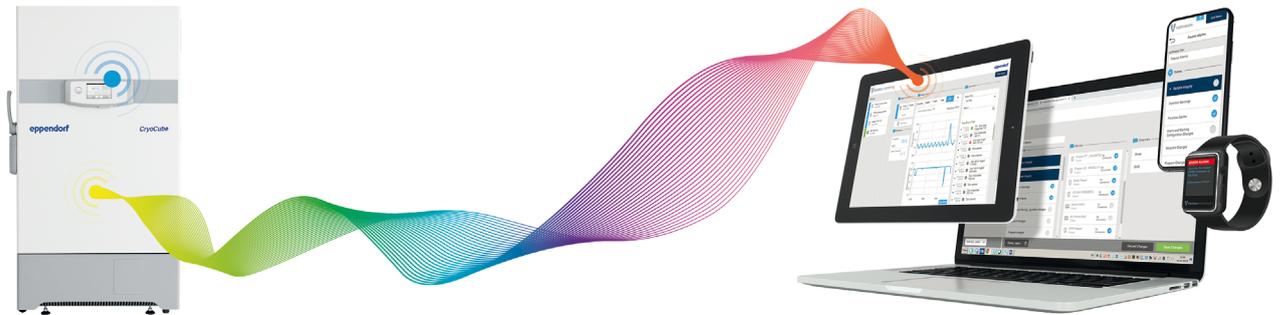
VisioNize sense enabled

Non-Eppendorf devices such as third party freezers connectable via VisioNize sense, e.g., a temperature and environmental monitoring sensor system.

*A list of recommended documents can be found in the back of this brochure including the links to the documents online.

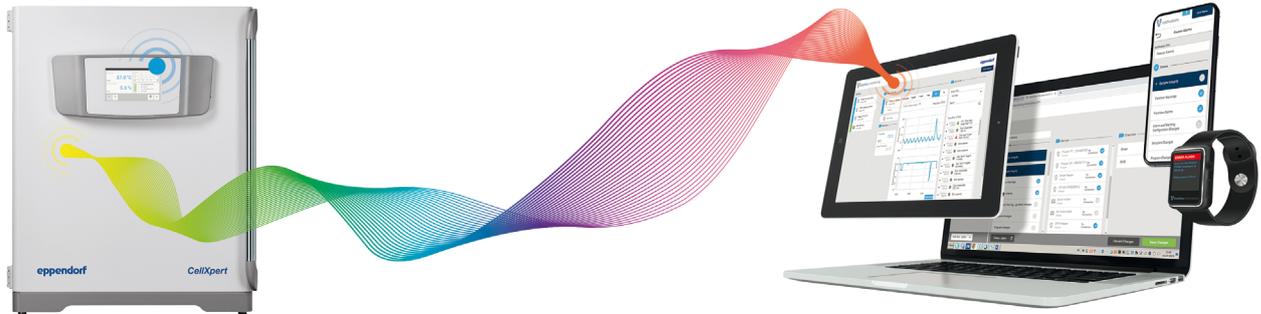
Connecting Your Freezers to VisioNize Lab Suite

- > **Monitor your entire freezer fleet** and **document** all related **device parameters** like temperature and ambient temperature as well as all device interactions, e.g., set-point changes
- > Export parameter and event data
- > Receive **real-time notifications** via email and SMS:
 - “Temperature above alarm limit - 60°C”
 - “Door open longer than 2:00 min.”
 - “Mains power failure. Check power supply to the device.”



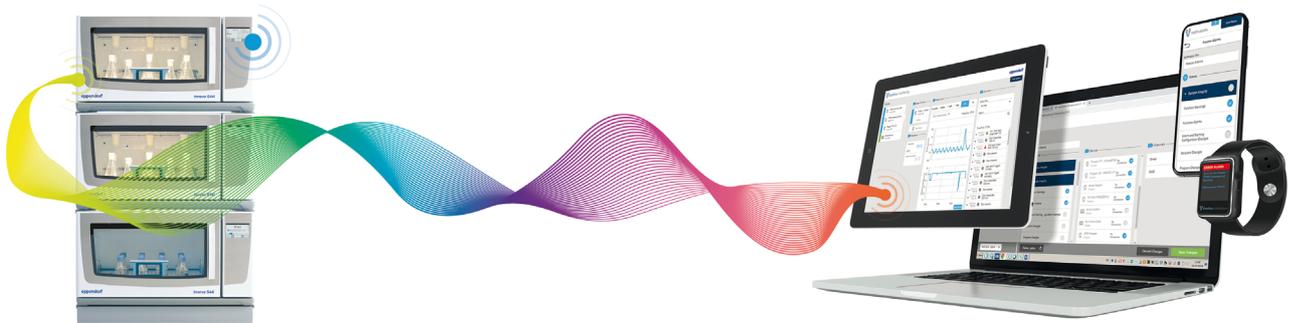
Connecting Your Incubators to VisioNize Lab Suite

- > **Monitor your incubators** and **track all related device parameters** such as **temperature, O₂ and CO₂** as well as all device interactions, e.g., set-point changes
 - > Check if the device can be used for your experiment
 - > Export parameter and event data
- > Receive **real-time notifications** via email and SMS:
 - “Temperature below alarm limit 30 °C”
 - “CO₂ pressure below warning level 0.4 bar. Check gas supply.”
 - “Long door opening: Close the door.”



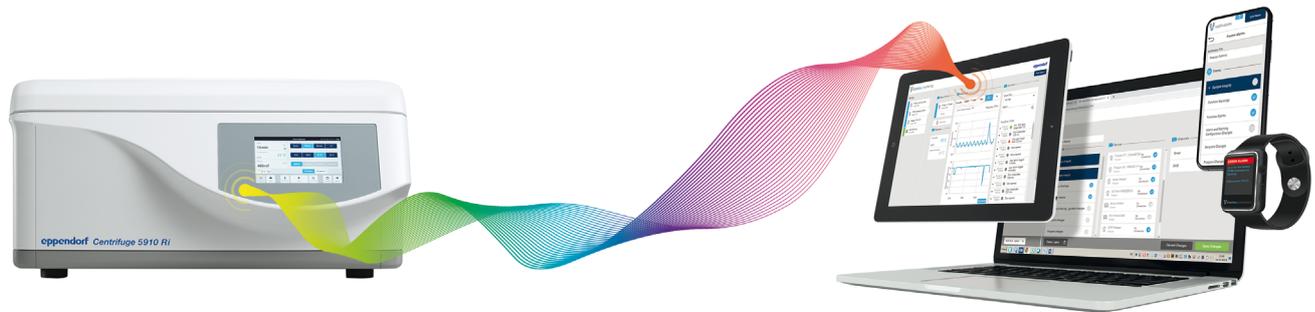
Connecting Your Shakers to VisioNize Lab Suite

- > **Monitor your shaker runs** and **track all related device parameters** such as temperature, **agitation**, and **remaining runtime** as well as all device interactions like set-point changes
 - > Check if a device is available for your experiment
 - > Export parameter and event data
- > Receive **real-time notifications** via email and SMS:
 - “Program 'pre-culture' has finished.”
 - “Temperature below alarm limit 30°C”
 - “Door open longer than 5:00 min.”



Connecting Your Cyclers, Mixers and Centrifuges to VisionNize Lab Suite

- > **Monitor** all **device-related parameters** like temperature and agitation as well as all device interactions like set-point changes
- > **Check** the **current status of your experiment** or if a device is available
- > Export **parameter** and **event data**
- > Receive **real-time notifications** via email and SMS:
 - “Execution of program ended”
 - “Temperature below alarm limit 30°C”
 - “Imbalance: imbalance during run”



Managing Further Lab Equipment with VisioNize Lab Suite

VisioNize | device management

eppendorf VisioNize User

P16212F
Research plus 3120

General Info		Location	
Nickname	P16212F	Site	Hamburg
Registration No.	--	Building *	
Device Model	Research plus 3120	Room *	
Serial No.	P16212F	Position	
Manufacturer	Eppendorf	Address	
Software Version	--	Organization	

Street 1	Barkhausenweg 1
Street 2	--
Postcode	22339
City	Hamburg
State	Hamburg

Pipette Specific Information

Pipette Type	manual
No. of Channels	1
Vol. Setting	variable
Min. Volume	100 µl

Digitize your lab devices based on lab location, serial number, manufacturer, assigned person etc. You can plan maintenance tasks, identify when a device is ready for use and access documents like manuals and certificates for devices from Eppendorf.

↑

Discard Changes

De Register

Add device +

Agilent Triple Quadrupole LC/MS
CellXpert C170i CellXpert C170
CryoCube F101h Freezer U101
CryoCube F740hi Freezer F740
Galaxy 48R Galaxy 48R
HH Sensor VisioNize sense - environmental m...
HH Centrifuge 5424R Centrifuge 5424R
HH Innova 40 Innova 4x Shaker
Innova US35 Freezer US35
P16212F Research plus 3120
Q17091F Research plus 3120
Research plus 3122 Research plus 3122

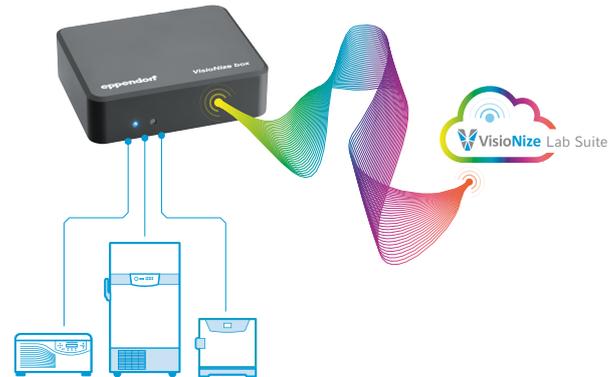
Enabling Connectivity with VisioNize® box

The easy-to-install hardware hub connects your VisioNize box enabled devices to the VisioNize Lab Suite.

The hub works as a translation system, **enabling data collection** of the device data in the platform. The box offers connections for **up to four devices** depending on the lab infrastructure/device location.

- > Connect VisioNize box **enabled (Eppendorf) devices** like freezers, incubators, shakers, centrifuges and thermomixers
- > **Monitor** all device-related parameters and run statuses
- > Have all parameter **data ready for export**
- > **Receive notifications** for connected devices covering:
 - > Parameter alarms
 - > Errors
 - > Device status changes

Order VisioNize box and additional accessories such as cables via the Eppendorf e-shop or contact your local Eppendorf sales representative.



Enabling Connectivity with VisioNize® sense

VisioNize sense can capture, record and transfer even the smallest changes in your environmental conditions to VisioNize Lab Suite. Use VisioNize sense to monitor your lab rooms, CO2 incubators, fridges or freezers from any supplier.

- > Sensors can be used for any kind of **temperature-controlled device monitoring** (from -90°C to +60°C)
- > Configure **temperature alarm limits** in VNLS and receive notifications via SMS or email.
- > All temperature data will be documented for audits
- > Use VisioNize sense as an independent (redundant) temperature probe for a fridge or freezer
- > The environmental sensor tracks additional parameters, e.g., **ambient temperature** (-10°C to +59°C), **humidity** (0% to 95%, non-condensing), pressure (700 mbar to 1.200 mbar) and **brightness** (0% to 100%).

Order VisioNize sense and additional accessories such as cables via the Eppendorf e-shop or contact your local Eppendorf sales representative.



VisioNize Lab Suite Setup Guide: www.eppendorf.com/visionize-setup-guide



Watch the tutorial video and learn how to set up the VisioNize sense sensor monitoring system.

Click here:



[How to Install the VisioNize® sense for Remote Device Monitoring](#)

Experience the Digital Lab



The laboratory 4.0 is advancing – and with it the promise of more efficiency, decreased use of resources, and improved sustainability. But is it really that simple?

Have a look by yourself!

Watch video:



**Digitalization in the Laboratory
with Visionary Technologies
from Eppendorf**

Experience the VisioNize® Lab Suite



Learn more about the benefits of switching to a connected digital lab. Our specialists will give you insights into each service of the VisioNize Lab Suite.

Join product tour:

 **Eppendorf Digital Platform - Demo of the VisioNize Lab Suite**

Lab Innovation Drivers & Proud VisioNize Lab Suite Users



Making data simple and accessible has become much easier thanks to increasing digitalization. Laboratories like GeneQuine Biotherapeutics are striving not only for sample security but also seek solutions allowing data access in a flexible way and moreover supporting them to keep their lab running.

Meet Kilian, Co-Founder and CEO sharing his experience using VisioNize Lab Suite.

Watch video:



[Reference Case: Data Management and Performance Monitoring for future-proofing the Laboratory](#)

'VisioNize® Lab Suite adds value to the lab. We have a lot of sensitive samples and it is really important to not waste time on things that should not be problems. VNLS has been great in monitoring our devices enabling users to regulate things from afar.'

**Ashmita Jha, Research Assistant, MIT,
Boston, United States**



'VisioNize® Lab Suite helps us automatically log device data and use it for further purposes. This makes our evaluations extremely robust and our protocolling complete.'

**Process Development Drug Substance,
CureVac AG, Tübingen, Germany**





Everything at a Glance

Get ready to setup the VisioNize Lab Suite:

www.eppendorf.com/visionize-setup-guide

Learn what is required to connect your device:

www.eppendorf.com/visionize-device-overview

Find useful tips & tricks in our Knowledge Base:

www.eppendorf.com/visionize-lab-suite-knowledge-base

Request your personal demo here:

www.eppendorf.com/visionize-demo

Register and manage your subscription online:

www.eppendorf.com/visionize-subscription

Explore all Eppendorf Digital Lab Solutions here:

www.eppendorf.com/digitalabsolutions

Join our upcoming webinars on Eppendorf Lab Channel. Your home for Experts and Knowledge... Live!
www.eppendorf.com/labchannel





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