Safeguarding Cryopreservation with Vaisala viewLinc

Failsafe Alarming & Monitoring for LN2 Tanks and other processes

Monitoring and alarming of reproductive cells and human cell and tissue products is crucial to ensuring the quality and viability of these products long-term. The Vaisala viewLinc monitoring system monitors cryogenic storage, temperature and many other parameters.

Designed for regulated applications, viewLinc sends alarms to dedicated personnel for any communication failure or out-of-specification condition that might damage products. The viewLinc system allows users to monitor all locations and facilities from one central location, managing users, generating reports and viewing real-time trends. Reports are customizable and compliant with 21 CFR Part 11 and Annex 11.

Learn more about monitoring and alarming with viewLinc in this blog:

“Liquid Nitrogen Monitoring of Reproductive Tissues - For Precious Cargo in LN2 Tanks, Failure is Not an Option”
FAQs on viewLinc LN2 Tank Monitoring:

1. **How does viewLinc send alarms?**
   - viewLinc sends alarms to personnel assigned to a monitored area by: Email, Text, Phone call, Local buzzer (alarm enunciator), or Visually (through PC/Laptop/Wall-mounted Monitor/Smart phone). The software also provides automated escalation for alarms that are not acknowledged.

2. **How do sensor probes and probe wires hold up at Liquid Nitrogen temperatures?**
   - The probe that senses LN2 is made of stainless steel, which is a standard metal used in Dewar tanks or flasks. Stainless steel is suitable for its resistance to breakage, good thermal conductivity, and low thermal expansion in cryogenic temperatures. The HMT140 Wi-Fi data logger uses an RTD sensor with a stainless steel tip (AISI 316).

3. **How accurate are the temperature readings?**
   - The accuracy of the sensor will depend on the device and the device you use will depend on your application needs and network connectivity preferences.
   - With viewLinc one option for extreme temperature is the DL1700 data logger with either Type T or Type K thermocouple. Accuracies for both are on the DL1700 data sheet. Another option is the HMT140 wireless temperature data logger which uses an RTD. Accuracies are found on the HMT140 data logger specifications.

4. **Does Vaisala require someone from their company to perform onsite validation annually?**
   - Vaisala does not require a Vaisala employee to visit your site(s) annually. However, we offer on-site validation, installation, and calibration services. Alternately, you can perform your own annual testing and/or calibrations. We offer protocol documents for those who want to perform in-house validation. We don’t require Vaisala installation, but we can provide installation as a standalone service.

5. **Can you add or remove an input (data logger) yourself?**
   - viewLinc users can make changes such as adding or removing inputs/loggers. Vaisala’s technical support is there at assist you by Web conference if needed.

6. **Can a user acknowledge alarms remotely?**
   - Yes you can acknowledge alarms remotely. The system also captures all actions performed by individual users in viewLinc’s secure audit trail.

7. **What reports are available?**
   - viewLinc provides reports on historical measurement data, alarm conditions, and system configuration.
   - **Automated reporting** – Customized Reporting can be set up to email PDF reports automatically to users at defined intervals (daily/weekly/etc.).
   - **On demand reporting** – Users can create reports on the fly for historical data or real-time trending.
   - All viewLinc reports are customizable with user-defined criteria such as every sample, min/max/avg., alarms with corrective action.

8. **What are the power requirements of the system?**
   - Both the DL-series and HMT140 data loggers are battery operated and have large on-board memory at the point of measurement to ensure you receive alarms and never lose historical data in the event of a power outage or communications failure.

9. **How do you view data during the business day and after business hours?**
   - **Browser-based monitoring** – viewLinc data can be accessed via PC/Laptop/Smart phone. Simply open a browser and login to viewLinc to see real-time values and trending, acknowledge alarms, and other actions.
   - **Local display on the data logger.**
   - **Mounted monitor** - many users mount a monitor on the wall for displaying real-time information from viewLinc.

10. **What types of environments can the system monitor?**
    - **Temperature**
    - **Humidity**
    - **CO<sub>2</sub>**
    - **Differential Pressure** such as clean rooms or hoods
    - **Door contact or alarm contact outputs**
    - **Other measurements can be monitored using analog input loggers**