



Check-up, Calibration and Installation Services

January 2020

we prove it.

elpro.com

A large, illuminated red sign on a building facade. The sign features the word "ELPRO" in a bold, sans-serif font, with a red heartbeat line graphic integrated into the letter "O". The sign is mounted on a dark surface and is brightly lit, casting a glow on the surrounding area.

ELPRO Certified Quality: It's in our DNA

- Over 30 years experience in the industry.
- Trusted by the world's leading pharmaceutical, biotech, bio storage, life science, logistics and health care organizations.
- All ELPRO facilities adhere to ISO 9001 Quality Management.
- Calibration laboratories are ISO 17025 certified.



Check-Up Services



- ELPRO tests and verifies the readout functionality of your device; the battery; and the programming.
 - Technicians inspect external channels, internal probes and other accessories (e.g. brackets, external probes or data cables).
 - **No Calibration Certificate is issued for check-up services.** If an optional Calibration Certificate is required, additional fees may apply. Ask your ELRPO sales associate for details and pricing.
- > After the Check-up is completed, the customer has the assurance that the data logger is fully functional.

Expert Calibration Services

- Calibration service is the measurement of a test object compared with a traceable reference.
 - The accuracy is documented and confirmed in a calibration certificate. ELPRO's laboratories are certified for various measuring parameters and accredited to highest national standards (NIST, UKAS, SCS, etc.).
 - ELPRO offers various standard and custom calibration services that differ in process; the number and settings of calibration points; and in the level of detail of the certificates.
- > Documented proof of accuracy with traceable calibration certificate.



Reliable Installation Services



- Experienced ELPRO technicians install monitoring kits on a variety of brands and types of cryogenic shippers and storage containers.
 - Best practice: ELPRO calibrates the data logger and sensor all together as one unit.
- > A successful repair delivers a once again usable data logger or accessory and comes with six months warranty. In case repair is not feasible ELPRO will make a special offer for a replacement data logger.

Data Recovery Services

- In the unlikely event that the worst comes to the worst, ELPRO's Data Recovery specialists read out existing data on customers' data loggers.
 - If data can be recovered, an interpretation of the data is performed (e.g. what kind of data has been read out, are date and time stamps plausible, what data is trustworthy and from when on data might not be reliable anymore).
 - If Data Recovery is successful, the customer receives the recovered data in digital format
- > Successfull Data Recovery delivers the data in electronic format with a possible interpretation of the data. ELPRO cannot give a guarantee about the success of Data Recovery.



Ask the Experts!

Ask us about our installation, calibration and service options today!



Example of a calibration set-up for Cryo Shipper Monitoring System

1



Dish-shaped dewar flask with certified reference instrument.

2



Liquid Nitrogen (LN2) in tank.

3



Fill dewar flask with LN2, about 10 cm deep. Take care – wear gloves.

4



Check LN2 temperature with the reference instrument. Depending on the atmospheric pressure, it will show a temperature between -195 °C and -197 °C. Cover the top with a styrofoam to prevent from strong boiling.

Example of a calibration set-up for Cryo Shipper Monitoring System

5



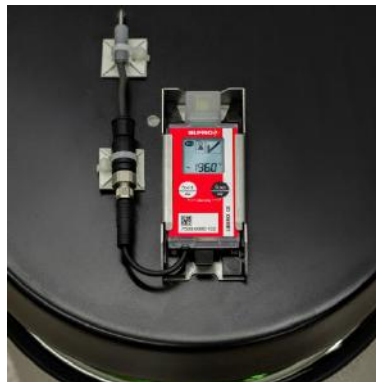
Enter the cork into or above the LN2.

6



Lower cork to close the system; wait for 10 minutes in order to stabilize the set-up.

7



After 10 minutes, check temperature of LIBERO CE. For a new system, the reading should be within $\pm 2^\circ$ of the reference instrument, i.e. between -194° and -198°C . Acceptable tolerance may be higher depending on the quality of the used Pt100 probe.