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Allpax Digital Chart Recorder

Features and Benefits

- Compatible with batch or continuous processes.
- Drop in replacement for standard chart recorders.
- Solid state hardware. No moving parts to wear out or replace!
- No expensive ink pens or paper to purchase.
- No chart paper to install, or calibrations required.
- Completely configurable color charts.
- Electronic report review functionality.
- Customizable printing options.
- Complete alarm system, with email alert capabilities
- Comprehensive user password security system, & fingerprint traceability of all interactions with the device.
- Safe and secure/encrypted data storage, ***fully compliant with the regulatory requirements of 21 CFR Part 11 for electronic record keeping and electronic signatures.***
- Data back-up and exporting functionality
- No lost or corrupt data, bringing an end to process deviations caused by chart recorders issues or errors.

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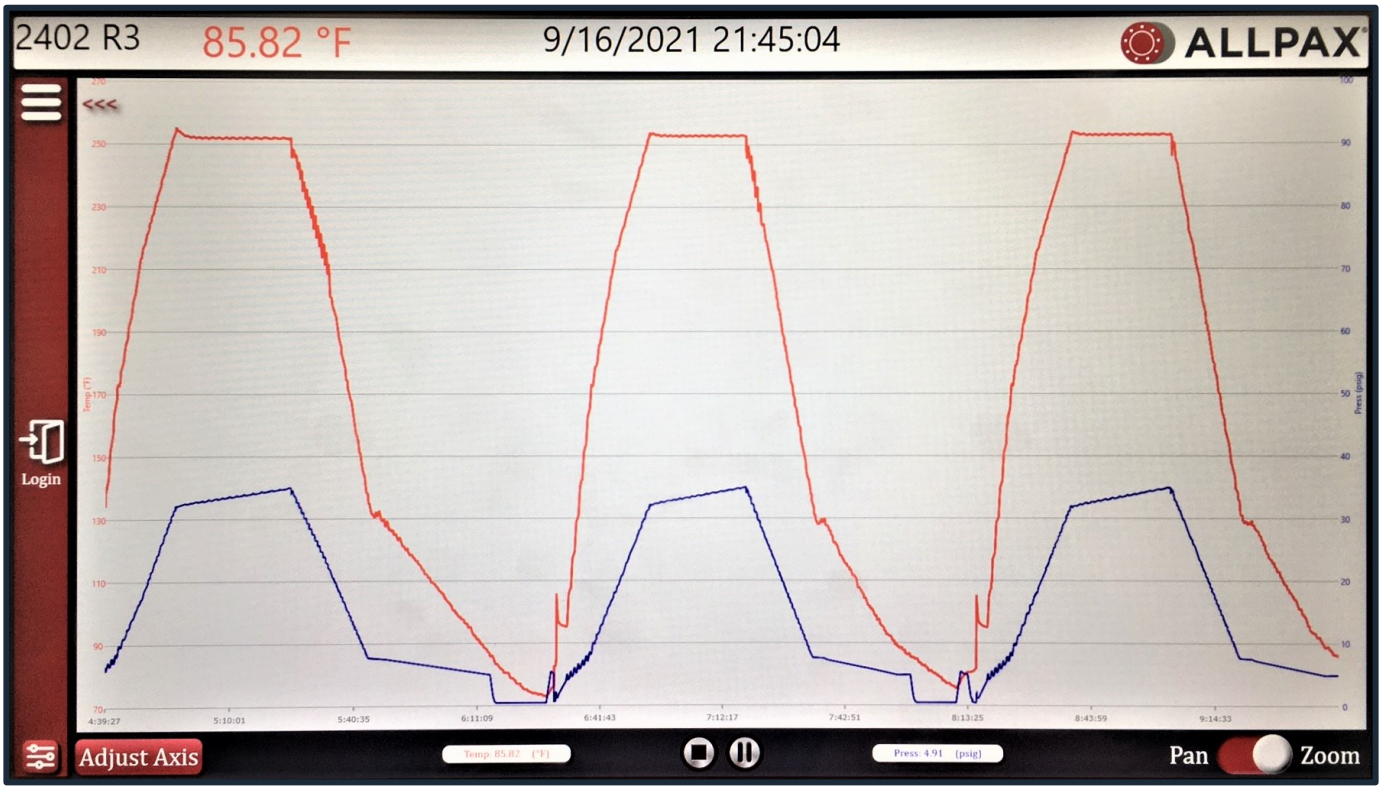
If you are you tired of dealing with the typical issues associated with traditional printed paper type recording devices, such as: frequent device maintenance and failed mechanical parts; costly replacement paper and ink; frequent and sometimes incorrect installation of paper, pens, or device settings; clock synchronization requirements; poor data resolution; print skips resulting in data integrity issues or loss; no data storage capabilities and lack of data security; etc., Allpax has a solution!

Allpax is pleased to announce the introduction of it's digital chart recorder, which is designed to replace traditional printed paper type recording devices. The Allpax digital chart recorder takes advantage of modern hardware technology. It is a solid-state device with ***no moving parts***, and it features low power consumption, low heat dissipation, and large data storage capacity. This results in low component failure rates and maintenance costs, and superior data display, security, and data retention capabilities. The Allpax digital chart recorder is a drop-in replacement for standard pen and paper charts. Installation is as simple as moving the wires from the paper chart recorder to the digital chart recorder. Or as an alternative, to allow for future migration to an electronic record keeping system, the Allpax digital chart recorder can be installed alongside existing pen and paper charts. This allows the digital chart recorder to be an electronic backup (i.e.: secondary recorder) to the paper chart. This backup can assist in alleviating issues with paper charts that result in process deviations (i.e.: paper jams/skips, dry ink, pen adjustment, paper replacement, incorrect paper installation or recorder set-up, etc.).

With the use of interface inputs, the Allpax digital chart recorder is integrated with process control systems. Using these input signals, the process control system informs the chart recorder of specific process events. The association between process events and the interface inputs is set up in the chart recorder configurations. Process events such as the start of a step, a set-point reached, an alarm firing, etc. is integrated into the chart recorders data, allowing it to be displayed within the graphical data trends. Reserved events such as *start of batch* and *end of batch* are used to group the chart recorder data points into logical data sets. The Allpax digital chart recorder time clock is automatically synchronized to a system-wide master time clock. This ensures that the chart recorder's time-stamped data is aligned with the time-stamped data generated by other data collection systems (i.e.: retort control system). This correlation allows the chart recorder data to be juxtaposed with other process data such as event summary reports, alarm logs, and production logs to enhance the record review process.



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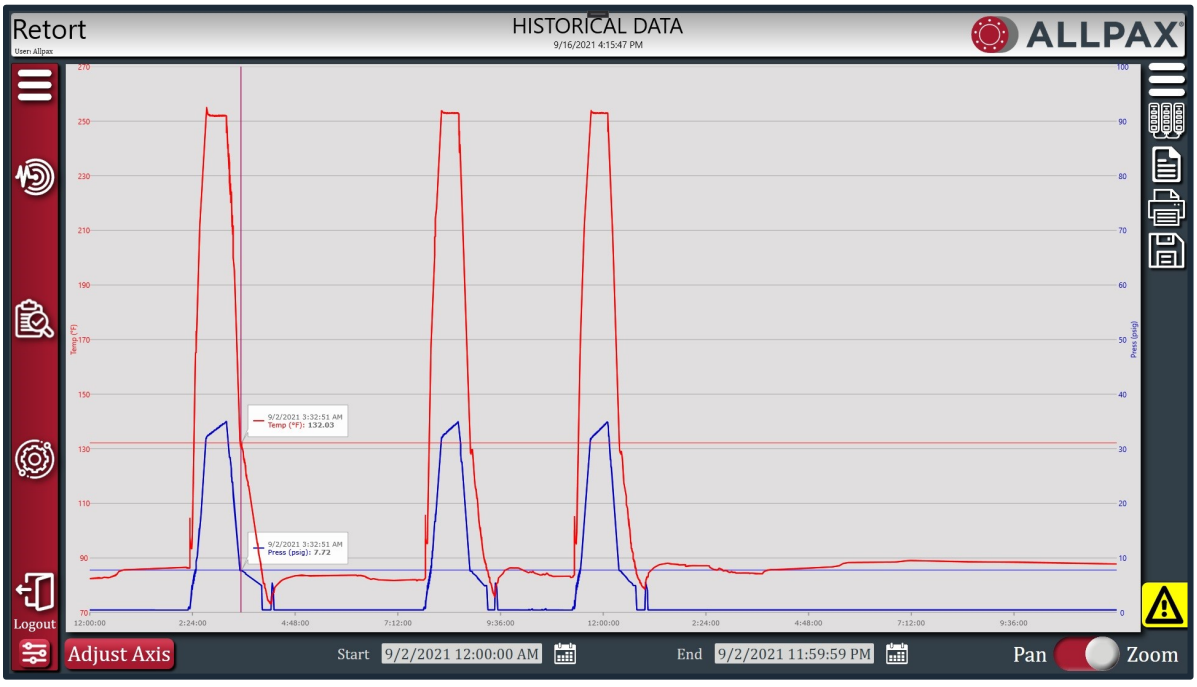
The Allpax digital chart recorder can be used to record data from a continuous processing system or a batch processing system. The Allpax digital chart recorder captures live time series data, graphically shows it on the chart recorder's fully configurable digital display screen and stores it in the chart recorder's local SQL Server database. Each input in the charted time series data is user configurable. Custom ranges, scales, and chart graduations can be defined to optimize legibility and adhere to the best practices as defined in the 21 CFR Part 113 and 21 CFR Part 114 regulatory guidelines. ***The Allpax digital chart recorder is designed to fully comply with the regulatory requirements of 21 CFR Part 11 for electronic record keeping and electronic signatures.***

The Allpax digital chart recorder can be setup as a record printing system that periodically prints the recorded data to paper. Using the automatic printing function, the chart will print subsets of the data at specified time events. Time events can be setup in the chart recorder configurations as simple time intervals or as specific process events such as the end of a batch. When using the Allpax digital chart recorder as a record printing system, the chart recorder can be configured to print single process data sets to one sheet of paper. This greatly increases the overall legibility of the printed data, allowing the record reviewer to precisely identify the time of a data point shown in the printed record.

When using the Allpax digital chart recorder as an electronic record keeping system, the record reviewer can use his \ her electronic signature to sign off on reviewed records and add notes to the reviewed data set. The Allpax digital chart recorder includes multiple data zoom functions. The record reviewer can use this capability to zoom in on specific data points to greatly improve the record review process.

The Allpax digital chart recorder includes a record finger printing system to ensure the highest levels of data integrity. Unique record identification *fingerprints* are generated and stored with the data at the time the electronic record is created. This finger printing system allows the software to discern if data is altered outside of the validated system or if it becomes corrupted. The Allpax digital chart recorder stores electronic records in a secure Microsoft SQL Server database to control data access and data security. This database engine utilizes strong password protection and encryption to prevent unauthorized access to the data. The Allpax digital chart recorder includes a comprehensive user security system. Within the chart software, a unique digital profile and signature is assigned to each user. Before a user action (e.g.: changing a chart configuration parameter) is allowed, users are identified by their encrypted digital signature and their access level is verified. User access level privileges are defined in each user's digital profile. The Allpax digital chart recorder tracks all changes, actions, and entries made by users of the chart recorder software. A transactional audit trail system logs every user action made (e.g.: changing a chart configuration parameter) as a record in the SQL Server database. A historical report for viewing what changes were made, who made the changes, and when were they made is included.



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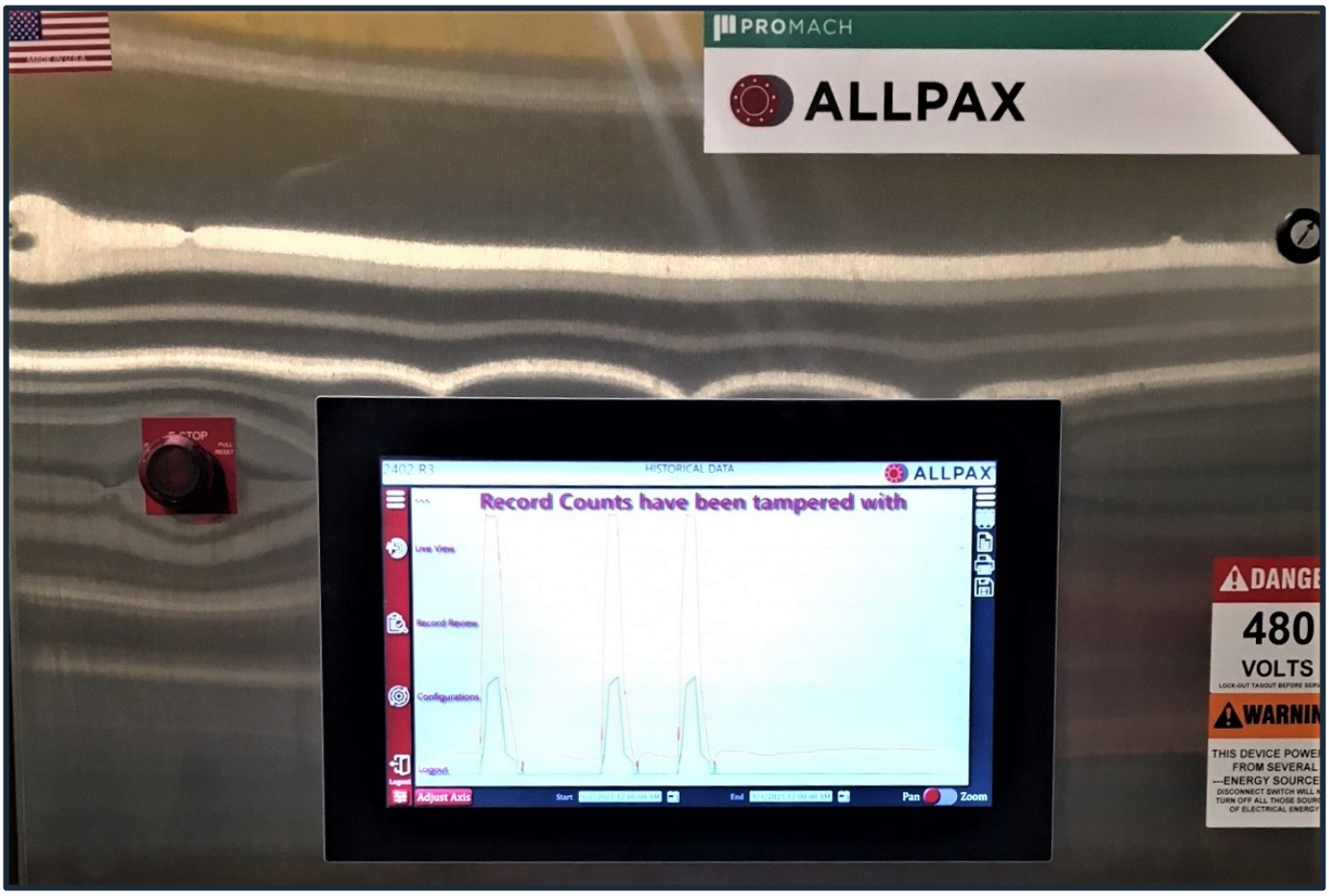
The Allpax digital chart recorder includes automated database backup functions and data export functions to provide high data reliability. The database backup function creates a full backup file that can be restored to a new database server. The data export functions create complete copies of selected data sets. The data sets are exported into human-readable formats such as Excel, PDF, Word, etc. These functions allow the data to be stored at multiple data locations to prevent loss of critical records.

The Allpax digital chart recorder also includes a comprehensive alarming system. This system notifies the end-user of issues such as out of spec recording inputs, low printer paper, loss of communication, etc. In revision 2.0 of the Allpax digital chart recorder software, alarms will be configured to automatically send emails to defined email addresses when an alarm is triggered.



Please contact us to learn more about the Allpax Digital Chart Recorder, or to inquire about any other Aftermarket Parts and Service capabilities that we have to offer to help you keep your equipment, and operations, running efficiently.