



ABB RECORDING & CONTROL APPLICATION



Temperature Monitoring in Fridges, Freezers & Cold Rooms

An Introduction to Cold Storage

Companies are obliged to monitor cold storage areas, particularly those used for storing frozen foods (e.g. ice cream, meat and fish) and chilled products (e.g. yoghurt, prepared meals and cheeses).

Examples of typical minimum storage temperatures are:

-18°C (-0.4°F)

- **Frozen foods** (ice cream, frozen vegetables, meat and fish) to help prevent deterioration

5°C (41°F)

- **Chilled foods** (prepared meals, cheeses, dairy products and other perishable goods) to help slow down or prevent deterioration

The obligation to monitor can also extend to areas that are used for food preparation. An example of this is an area used for preparing meat and fish, where products must be weighed, prepared and packed at temperatures of around 7°C (45°F). It is also normal to monitor and record ambient storage conditions in these areas.

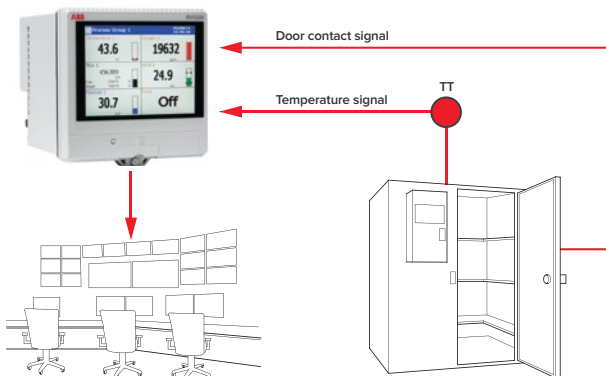


ABB have a variety of recorders capable of recording temperature at whatever time intervals are required by the customer. The data is stored for analysis and can be easily downloaded to a USB memory stick/SD card for archiving or transfer to a PC.

In making use of ABB's recorders and data review software, end users are no longer exposed to the consequences of human error, giving them the peace-of-mind that their temperature data is always available when needed by themselves or by third-party inspectors.

Use of the recorder also facilitates the management of multiple sites as site managers can upload the data to a convenient central location.

Cold Room Monitoring Overview



What ABB products are suitable?

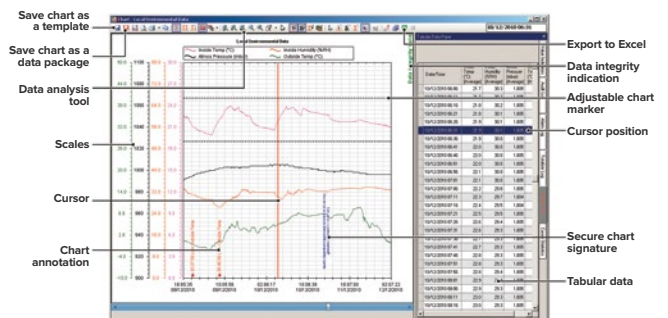
ScreenMaster RVG200

- A 24-input touch screen recorder featuring swipe gesture control provides fast and intuitive operation
- **21 CFR Part 11 compliance** and GAMP validation package. With its audit trail, secure archiving format and extensive physical and configuration security features, the RVG200 is ideally suited to applications where compliance with 21 CFR Part 11 (the FDA's regulations regarding electronic record keeping) is required.
- Multiple USB ports enables attachment of peripherals (e.g. barcode scanner, keyboard) to speed up data entry for batch processes
- Standard ethernet communications and in-built webserver enable easy integration to existing network/control systems and remote process supervision
- Alarm generation when a fridge/freezer/cold store door is left open for a longer period than expected. The RVG200 features alarm acknowledge timeout that monitors whether the condition for an acknowledged alarm is cleared within a configured timeout period. If it is not cleared, the acknowledge state is reset to active / unacknowledged. This feature tracks whether all the alarm conditions are properly actioned by the operator.
- Ability to send email notification of alarms and status reports
- ABB also have other paperless recorders available to suit this application, such as the SM500F (7 channels)



DataManager Pro

DataManager Pro is an advanced process data management and analysis application used to store and review data archived by ScreenMaster paperless recorders.



- Temperature recorded in different fridges, freezers and cold rooms can be combined on a single chart and analysed side-by-side
- Functionality to annotate alarms on the chart enables quick and easy analysis of alarm conditions
- During data analysis, signatures and comments can be added securely to the chart - ideal for approval or verification purposes
- Data can be collected at regular intervals automatically from instruments located in remote locations and can be viewed at the convenience of your office desk