

## Protecting Inventory for a Pharmaceutical Manufacturer

### *Grant SQ2020 Squirrel Series Data Logger Helps Streamline QC*

Pharmaceutical product manufacturing is synonymous with strict quality control and traceability. To ensure that these requirements are reliably met, a leading pharmaceutical manufacturer in the UK required a temperature monitoring system to continuously monitor 8 different temperature points as well as temperature and relative humidity in 2 other locations within their retained sample store. The manufacturer also needed alarming capability to alert workers the moment that either temperature or humidity went outside regulatory limits.



The manufacturer installed a Grant Squirrel SQ2020 Portable Universal Input Data Logger from CAS Data Loggers in the storage section of its quality testing area. Users connected the data logger to eight temperature probes and a pair of combination temperature and RH probes to cover all their monitoring points. This system was also supplied with UKAS (United Kingdom Accreditation Service) calibration certification.

The Squirrel data logger offers users a highly accurate (0.05% accuracy) battery-powered solution featuring 24-bit analog-to-digital converters for precision measurements. Grant data loggers are capable of measuring a wide range of physical values including temperature, humidity, current, voltage and resistance. In this particular application the data logger is wall-mounted, but the lightweight and portable design of this unit makes it just as convenient to use for numerous applications within industry and research. Additionally Grant's Squirrel series is world-renowned for its ruggedness and durability.

The Squirrel data logger has a built-in LCD display and keypad enabling operation either as a stand-alone recorder or as a PC-linked data acquisition system. The SQ2020 data logger offers 8 to 16 universal analog inputs and 8 digital inputs as well as up to 16 derived/calculated channels and 4 pulse rate/counter inputs.

The SQ2020 is easily configured via integral interface or via PC and supports both USB and RS232 connectivity. The SQ2020 data logger was chosen for its ease of use and standard USB connectivity. USB provides fast downloading of data which is critical in the pharmaceutical industry where regulatory compliance is so important. Users can also deliver setup and configuration files, download the up to 14 million readings of logged data by using removable MMC/SD (Multi Media Card) memory cards, or simply plug the data logger into a PC and download the data for inspection to determine if optimal storage conditions have been maintained.

The strict monitoring criteria are set in the configuration process with automated alarms to notify personnel when any temperature or humidity measurement crosses the pre-determined thresholds. A loud buzzer was connected as a local warning device to the logger's alarm outputs. This way personnel can take immediate corrective action to help preserve their life science products by relocating inventory to safer areas until the underlying issue can be addressed

SquirrelView software is included with every Squirrel data logger for configuration and analysis utilizing an intuitive interface allowing quick set-up, fast data downloads, and direct export to Microsoft Excel. As a high-powered option, SquirrelView Plus software is available for an additional charge. The software upgrade adds benefits such as graphical data analysis and advanced reporting options.

The Squirrel data logger is a cost-effective solution for this application given that it covers multiple monitoring points and records both temperature and humidity. Testers found that the Squirrel logger offers hassle-free data management and trouble-free operation at an affordable price. Easy to use and portable, the Squirrel's LCD lets users configure the system independent of a PC--meanwhile the Squirrel's alarming feature helps protect at-risk products. This directly upholds the brand's reputation for quality and streamlines the QA process, saving both time and money.