

# Real Time Temperature & RH Monitoring Solution For Multi Location Pharma Warehouses in the Cold Chain



enviroSCAN, the Multi Channel Scanners & Data Loggers and the Web based Enviro Multiple Warehouses Monitoring Software, together monitor the temperature and RH under which your vital medicines and vaccines are stored in the network of your warehouses in the Cool Chain and thus assist you in **your Good Distribution Practices (GDP)**

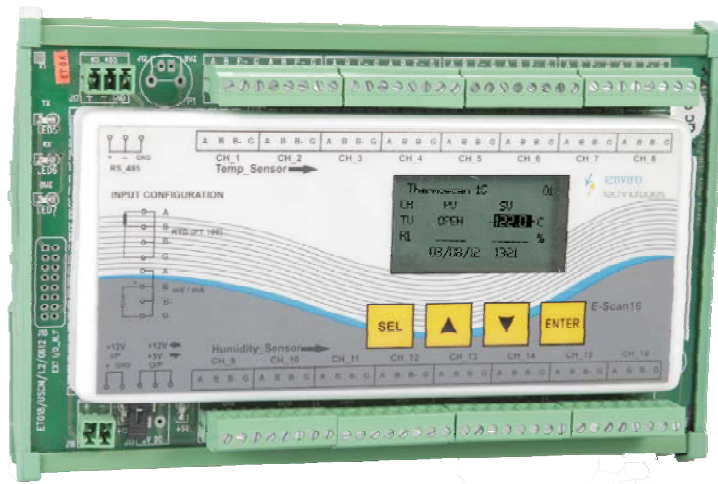
- If either the temperature or the RH start deviating from the range or limits set by you in any warehouse or chamber, you will get the news by way of a GSM Alert and an email, so that you can initiate steps to reverse the deviation.
- With the Enviro Multiple Warehouses Monitoring Software the monitoring can be done on a Real Time basis from any central location.
- The system's Equipment Name Tagging enables you to identify the exact chamber in any of the warehouses in your network.
- The enviroSCAN monitors Ultra Sub Zero to low Temperature, and 0% to 100% RH, in an accurate and tamper proof manner thereby assuring you of reliability and Data Integrity.
- Provides various rich MIS reports and graphs, in US FDA 21 CFR compliant format, such as the Mean Kinetic Temperature (MKT) and Time Temperature Integration (TTI) in PDF.
- Available in 4, 8 or 16 Chanel options.

Solutions of Enviro Technologies for Accurate, Tamper Proof and therefore Authentic and Reliable monitoring of environmental parameters - to ensure GMP, GDP & Data Integrity.

**Part 11 Compliant**

Enviro also offers enviroDPMS to monitor Differential Pressure, Temperature and RH in the Clean Rooms and enviroSUDL, the Single Use Data Logger to monitor sub zero to low temperature in your export consignments.





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### Advantages of enviroSCAN

for monitoring temperature and RH in the Warehouses in your Cool Chain Network for medicines and vaccines.

**Monitoring of Temperature and Relative Humidity:** enviroSCAN monitors Temperatures, from Ultra Sub Zero (even -80°C or lower for vaccines) to low and Relative Humidity from 0% to 100%

**Real Time Multi Location Warehouse Monitoring of the network:** With the Enviro Multiple Warehouses Monitoring Software, the Administrator can monitor, from any central location, the Temperatures and RH, at all the warehousing facilities in the Cool Chain Network and in all the chambers in each such facility.

**Programmable Equipment Name Tagging and Alarms on Probe Level:** enviroSCAN provides for Equipment Name Tagging and Alarms to separately identify each chamber, storing different medicines and vaccines, at different combinations and ranges of temperatures and relative humidity, in different warehouses.

**GSM Alarm and email:** A Warehouse and Chamber specific GSM alarm and email to the central administrator in the event of any deviations from the permitted limits of temperatures or relative humidity.

**Punctuality:** The readings are logged automatically at pre determined intervals and when a deviation event takes place, punctually, 24x7.

**Accuracy:**

- i German sensors, ROTRONICS, for high accuracy.
- ii Accurate processor - Highly accurate ADC IC.

**Tamper Proof Data and so Authentic MIS Report and Data Integrity:**

- As the logging is Accurate, Tamper Proof and Punctual and the reports are direct from the monitoring systems in the warehouse, without any human intervention, the data is authentic and reliable. This assures of Data Integrity.
- Various MIS reports, in US FDA 21 CFR compliant format, such as the Mean Kinetic Temperature (MKT) and Time Temperature Integration (TTI) calculations etc, from the in-house developed Enviro Software are available in Real Time and for an audit trail.

**Sizeable data storage:** Capacity up to 20,000 records for offline storage

### Technical Specifications:

No of Channels	4, 8 and 16 channels universal data logger (depending on user requirement you can connect any type of sensor)
Sensor Input	1. Temperature: RTD PT-100 (2 or 3 wire) 2. Linear Inputs : 4mA - 20mA, 0mA - 20mA, 0-1 V, 0-5V 3. Humidity RH: 0-1V, 0-3.3V
Sensor Range	1. Temperature: RTD PT-100 : Upto 1200°C 2. Humidity : 0 to 100% Rh 3. Can Support 3 types of Thermocouple
Temperature Resolution	1. 0.1° C to 1° C subject to input 2. RTD : 0.1° C ; Thermocouple : 1° C Humidity : 0.1%
Reading Interval	1 min to 255 mins (User defined)
Sensor Accuracy/ Tolerance	1. Temperature: ± 0.2° C to ± 1° C subject to input 2. Humidity: ± 0.5% Rh to ± 1% Rh subject to input
Display	Display Graphical Display 128 x 64 GLCD
Data Logging	Real time Data stamping, with interval unaffected by power programmable log and storage time outages
Memory Capacity	15000 transactions
Adapter Supply Voltage	110/230 V AC - 50/60 Hz & 12V DC/ 1A adapter
Communication	GSM/ GPRS, TCP/IP and RS485 output
Computer interface	RS485 to USB or RS232 or TCP/IP
Relay Output	8 Relays output with external card (Optional)
Audible Alarm	On Board Buzzer (Optional- External Hooter)
Size	190 x 122 x 45 mm



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