

COLD CHAMBER



Temperature Range: -10°C to +60°C

Accuracy: ± 0.2° C

Temperature Uniformity: ±1.0°C

- Exterior made of mild steel and interior made of stainless steel.
- Exterior and interior made of stainless steel (S).

CONSTRUCTION:

This unit has double-walled insulated PUF modular panels, which can easily be assembled at site without any major hassles. Interior is made of Stainless Steel and Exterior is either made of Mild Steel finished with powder coating or Stainless Steel. The unit is provided with perforated Stainless Steel trays. The unit has a double-walled leak-proof metal door with lock, with a provision of opening door from inside. For recirculation of uniform temperature.

INTELLIGENT CONTROL SYSTEM:

The controlling system has a digital LCD base and P-Communication on **Ethernet**. Separate Temperature Controlling Panel for each chamber.

SENSOR:

Temperature sensor PT-100 used for measurement. Temp. Indegree Celsius with 0.1° C.

COOLING SYSTEM:

Consist of thermally sealed compressor coupled with evaporator coil and condenser, safe guarded by timed relay circuit. CFC free refrigerant. The cooling system is made up of split type so as to not place the compressor coupled with condenser coil (Condenser unit) in well-ventilated area and avoid hot air with instability.

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ALARMS:

Audio and visual alarms are generated for temperature variation.

SAFETY:

The unit is provided with safety devices for temperature and pressure fluctuations to prevent malfunction.

The unit works on 230V AC and 50Hz mains supply.

OPTIONALS:

- **Common Software:** Chambers are connected on TCP/IP (Ethernet) with the centralized workstation and transferring data in database. This centralized workstation provides the tool for viewing, trending and alarm management of chambers.
- **Temperature Scanner:** 8-point scanner for temperature having 8 temperature probes provided with alarm status monitoring various parameters.
- **Standby Cooling System (Auto Switch Over):** A fully functional cooling system can be provided as standby. It comes in operation automatically when the regular system fails to function.
- **Door Access System with Touch Screen Display:** The door access system restricts access to the chamber to authorized persons only. In this system a physical lock is provided additionally to this pass word access control is provided. Maximum security is achieved in the chamber.
- **Remote Alarm System:** Alarm for Temperature & Humidity deviations. Indicator LED to identify equipment deviation. Alarm hotert estp ushbutt on
- **Mobile Alert System:** Suitable for equipment whenever the alarm is generated by the system the user has to acknowledge the alarm within predetermined time. If the user fails to acknowledge the alarm will send a SMS or 3 pre defined numbers.



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SPECIFICATIONS

- **Design:** Microcontroller based (ARM) with 8 channel available for sensors (4 channel for analog/Digital each).
- **Display:** 20*4 LCD Display/ Touch Panel .
- **Analog Sensor Input:** LM35/RTD/Thermister/Thermocouple/pH/Humidity.
- **Digital Sensor Input:** PIR/Fire Sensor/Vibration sensor/Magnetic Sensor.
- **No. of Channel:** 8 (4 for analog input/4 for digital input).
- **Memory:** SD Card (For Available in selected module only).
- **Protocol:** FAT32.
- **Options:** High rate/Low rate/Trigger mode/Channel Selection/buzzer Alarm.
- **Log Interval:** 600 samples/sec to 1sample/week.
- **Timing:** Build In Real Time Clock.
- **Supply:** AC operated/Battery Operated/DC Operated.
- **Data Storage:** In a Ms Excel Sheet, Each records are stored with Time & Date stamp.
- **Relay Interface:** Can be used to interface a +12V DC component.
- **Data Logging:** Real Time with programmable log and storage time.
- **Settings:** Using a Hex keyboard to set the various parameters, to configure the channel and to manually set rate for the sample and hold the channel number.
- **Size:** 96x96 mm Industrial Panel.
- **Enclosure:** Hand Held / Wall mountable / Panel Mountable.



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