Programmable Temperature Controller

(Series: RAC-PTC)

Catalog ID: TC13

Overview:

One of the important things in the HVACR area beside of being familiar with the refrigeration system is that the student should also be familiar with the controller. In this model, we guide the student systematically for programming the microprocessor based controller suitable for applications on high, medium, or low temperature refrigeration system.

It has three relay outputs to control compressor or solenoid valve, fan and defrost which can be either electric resistance element or hot gas bypass. The device is also provided with three NTC and *three PT1000 probe inputs (optional)*, the first one for temperature control, the second one to be located onto the evaporator, to control the defrost termination temperature and to manage the fan and the third used for temperature sensor suitable for HACCP Standard or it is provided with a configurable digital input.

Programmable Temperature Controller (RAC-PTC-01)

Technical Specifications:

1. One Programmable Temperature Controller
2. Indicator Lights for Fan, Compressor, Pump Down Solenoid Valve, Defrost Heater, and Hot Gas Solenoid Valve.
3. Circuit Breaker
4. Power Switch with Indicator Light.
5. Three NTC probe inputs.
6. Two external Digital Inputs
7. Replaceable power plug
8. Power extentions
9. Set of stackable plug for connecting controller to the real system or Teach Build-Up Trainer model: **RE-BDU series** (Build Up Refrigeration System Trainer).

Experimental Capabilities:

In this Trainer student will be able to do programming parameters commonly found in a **Refrigeration Temperature Management Controller** such as:

1. Regulation Parameters:
Differential, Maximum setpoint, Minimum setpoint, First probe calibration, Evaporator probe presence, Second probe calibration, third probe calibration, Outputs activation delay at start up, Anti-short cycle delay, Compressor ON time with faulty probe, Compressor OFF time with faulty probe.

2. Display Parameters:
Measurement unit, Resolution, Default display, Display delay.

3. Defrost Parameters:
Defrost type, Defrost termination temperature, Interval between defrost cycles, Maximum length for defrost, Start defrost delay, Display during defrost, Drip time, Defrost at power-on.

4. Fan Parameters:
Fans operating mode, Fans delay after defrost, Fans stop temperature.

5. Alarm Parameters:
Maximum temperature alarm, Minimum temperature alarm, Temperature alarm delay, Exclusion of temperature alarm at startup.

6. Digital Input Parameters:
Digital input polarity, Digital input configuration, Digital input delay, Compressor and fan status when open door, Regulation with door open., etc.

Programmable Temperature Controller

(Series: RAC-PTC)

Catalog ID: TC13

Optional Sensor Probe:

RAC-PTC-PT1000: Three PT1000 probes

Power Requirement:

Single Phase, 220-240VAC/50Hz

Experiment Manual & Job Sheet:

The Experiment Manual & Job Sheet available in English Version or Bahasa Indonesia (depend on customer request).

Unit Dimensions:

RAC-PTC-01: 285mm(L) x 270mm(W) x 125mm(H)