

# HUMIDITY/TEMPERATURE CONTROLLER Model 7217-CAP



## Features

- Bright 7 segment, 4 Digit Green Display for Humidity and 4 Digit Red Display for Temperature
- Separate Limits and Relays for Temperature and Humidity with selection between Heater/Cooler and Humidifier/De-Humidifier
- On/Off type outputs with user settable Hysteresis
- Digital Offset control for Temperature and Humidity
- Capacitive sensor offering ease of use
- Non-Volatile memory to hold settings and counts

## Specifications

- Display : 4 Digit, 7 segment Green LED display (0.56" height) for Humidity  
4 Digit, 7 segment Red LED display (0.56" height) for Temperature
- Range : 0-100.0% for Humidity (in 5°C to 50°C temperature range)  
0°C to +80.0°C for Temperature
- Set Limits : 0-100.0% for Humidity Set Limit  
0.0°C to +100.0°C for Temperature Set Limit
- Hysteresis : 0-9.9 for Humidity and Temperature
- Digital Offsets : -19.9 to +19.9 for Humidity  
-19.9 to +19.9 for Temperature
- Relay Outputs : Potential Free contacts @220V/5Amps, one each for Temperature and Humidity
- Memory Retention: 10 years
- Mounting : Panel Mounting
- Size : 96mm x 96mm. Depth 50mm
- Weight : Approx. 375 gms.
- Operating Temp. : 0-50°C
- Humidity : 95% RH

## **DIRECTIONS FOR USAGE**

- Connect the 4 wires of the Humidity/Temperature Sensor to the rear top 4 terminals as per label
  - GRN-Green
  - RED-Red
  - BLK-Black
  - WH-White
- Connect L (Line) and N(Neutral) terminals to 220V AC Mains
- Connect the Relay outputs (NO-P-NC (Normally Open-Pole-Normally Closed) as required.
- Relay-1 is for Humidity. Relay-2 is for Temperature

## **SET LIMITS**

- **Humidity Set Limit**
  - Press the ☆ switch.
  - Upper Display indicates “Hum” while lower display shows the current Humidifier Set Limit
  - Use Increment and Decrement switches to make changes
  - After changes have been made, press the ☆ switch to move to next setting.
- **Temperature Set Limit**
  - After last setting, Upper Display indicates “Temp” while lower display shows the current Temperature Set Limit
  - Use Increment and Decrement switches to make changes
  - After changes have been made, press the ☆ switch to move to return to normal display

## **CONFIGURATION SETTINGS**

- **Hysteresis for Humidity**
  - Press the Reset switch.
  - Upper Display indicates “HHys” while lower display shows the Set Hysteresis for Humidity
  - Use Increment and Decrement switches to make changes
  - Range is 0-9.9
  - After changes have been made, press the Reset switch to move to next setting.
- **Hysteresis for Temperature**
  - Press the Reset switch.
  - Upper Display indicates “tHys” while lower display shows the Set Hysteresis for Temperature
  - Use Increment and Decrement switches to make changes
  - Range is 0-9.9
  - After changes have been made, press the Reset switch to move to next setting.

- **Digital Offset for Humidity**
  - After previous setting upper Display indicates “HoFF” while lower display shows the Offset for Humidity
  - Use Increment and Decrement switches to make changes
  - Range is -9.9 to +9.9
  - After changes have been made, press the Reset switch to move to next setting.
  
- **Digital Offset for Temperature**
  - After previous setting upper Display indicates “toFF” while lower display shows the Offset for Temperature
  - Use Increment and Decrement switches to make changes
  - Range is -9.9 to +9.9
  - After changes have been made, press the Reset switch to move to next setting.
  
- **Logic for Humidity Relay**
  - After previous setting, upper display indicates “rel1” while lower display indicates “Hum” or “dHum” depending on previously set values
  - Use Increment and Decrement to toggle between “Hum” and “dHum”
  - If “Hum” is selected, then Relay-1 works as a Humidifier Relay.
    - Relay1 ON for Humidity < Humidity Set Limit- Humidity Hysterisis
    - Relay1 OFF for Humidity > Humidity Set Limit
  - If “dHum” is selected, then Relay-1 works as a De-Humidifier Relay.
    - Relay1 ON for Humidity > Humidity Set Limit+ Humidity Hysterisis
    - Relay1 OFF for Humidity < Humidity Set Limit
  - After changes have been made, press the Reset switch to move to next setting.
  
- **Logic for Temperature Relay**
  - After previous setting, upper display indicates “rel2” while lower display indicates “Heat” or “Cool” depending on previously set values
  - Use Increment and Decrement to toggle between “Heat” and “Cool”
  - If “Heat” is selected, then Relay-2 works as a Heater Relay.
    - Relay2 ON for Temperature < Temperature Set Limit- Temperature Hysterisis
    - Relay2 OFF for Temperature > Temperature Set Limit
  - If “Cool” is selected, then Relay-2 works as a Cooler Relay.
    - Relay2 ON for Temperature > Temperature Set Limit+ Temperature Hysterisis
    - Relay2 OFF for Temperature < Temperature Set Limit
  - After changes have been made, press the Reset switch to move to return to normal display