

**µC Based PID or On/Off Temperature & Humidity Controller**  
**Universal input**  
**MODEL NO: (PID-HB-96)**

**Features:-**

- Microcontroller based, Double display
- Supply 220 V Ac
- Input .3.3vdc or RTD selection
- PID or On/Off Control selection
- Range:
  - RTD.1 type -50.0 to 400.0.
  - Humidity 0 to 100%.
- Temperature As per range adjustable in set mode.
- Humidity As per range adjustable in set mode.
- Ct 1 to 60 for SSR/RELAY output adjustable.
- Auto tuning require for pb, It & dt value.
- Hysteresis 0.2 or 2 to 25.0c or 25c adjustable as per range selection for RTD.
- Delay 0 to 250 second adjustable for cooling control.
- Err -display if Sensor break, open & reverse.
- Relay trip if sensor breaks, connection open or connection reverse.
- Calibration Error correction by front key switch (No preset setting).

**Key Function**

- You can go in set mode by set key.
- You can change setting in set mode by Increment & Decrement key.
- Enter key to store all set value in memory.

**Setting**

- ⇒ You can change **All value** by Increment & Decrement key.
- ⇒ Press Enter key to exit & save from any step else go to next step.

**(A) Temperature/Humidity Setting**

Press **SET** key to SET Humidity

Display = **St.rh** & Last SET value

Press **SET** key to SET Temperature

Display = **temp** & Last set value

**Repeat above from Step (A) else press enter key to save & Exit.**

**STEP (B)**

**Setting of CT, Tune, Delay, HY Error for (PID Control)**

**Press SET Key for 10 Second**

- SET **Ct** For SSR/RELAY  
Display = **Ct** & Last Set Value (1 To 60)
- Press **SET** key to Select TUNE Function (Yes or No Selection By UP/Down Key)  
Press **UP** Key → Display = **Yes** → Press **ENT** for Auto Tuning
- Press **SET** Key to Set **DELAY** For Cooling  
Display **DELY** & Last Set Value (0 To 250 Second)
- Press **SET** Key to Set **DELAY ON**  
Display **d.on** & Last Set Value (0 To 250 Minute)
- Press **SET** Key to Set **DELAY OFF**  
Display = **d.off** & Last Set Value (0 To 9999 Minute)
- Press **SET** Key to Set Humidity Error (Yes or No Selection By UP/Down Key)  
Display = **h.err**  
Press **UP** Key → Display = **Yes** For SET Humidity Error (-25 To 25%)

- Press **SET** Key to Set Temperature Error (Yes or No Selection By UP/Down Key)  
Display = **t.err**  
Press **UP** Key → Display = **Yes** For SET Temperature Error (-25.0 To 25.0 C)
- Press **SET** Key to Set Humidity Cooling Hysteresis  
Display = **r.c.hy** (1 To 25%)
- Press **SET** key to Set Temperature Cooling Hysteresis  
Display = **t.c.hy** (0.2 To 25.0 C)
- Press **SET** Key to Set Maximum Temperature Range  
Display = **t.rnh** (400.0 C)
- Press **SET** Key to Set Minimum Temperature Range  
Display = **t.rnl** (-50.0 C)

### PID Default Value of TEMPERATURE or HUMIDITY

#### Press SET Key and Hold 20 Second

DISPLAY = dr-pb : 4.0

Press **SET** Key

DISPLAY = dr-lt : 180

Press **SET** Key

DISPLAY = dr-dt : 30

Press **SET** Key

DISPLAY = rh-pb : 4.0

Press **SET** Key

DISPLAY = rh-lt : 180

Press **SET** Key

DISPLAY = rh-dt : 30

Press **SET** Key

Press Enter Key To Save & Exit.

### STEP (C)

#### Setting of Hysteresis, Delay, Error for (On/Off Control)

#### Press SET Key for 10 Second

- **SET RH.HY**  
Display = **rh.hy** & Last Set Value (1 To 25%)
- Press **SET** key to Set **T.HY**  
Display **t.hy** & Last Set Value (0.2 To 25.0 C)
- Press **SET** Key to Set **DELAY** For Cooling  
Display **DELY** & Last Set Value (0 To 250 Second)
- Press **SET** Key to Set **DELAY ON**  
Display **d.on** & Last Set Value (0 To 250 Minute)
- Press **SET** Key to Set **DELAY OFF**  
Display = **d.off** & Last Set Value (0 To 9999 Minute)
- Press **SET** Key to Set Humidity Error (Yes or No Selection By UP/Down Key)  
Display = **h.err**  
Press **UP** Key → Display = **Yes** For SET Humidity Error (-25 To 25%)
- Press **SET** Key to Set Temperature Error (Yes or No Selection By UP/Down Key)  
Display = **t.err**  
Press **UP** Key → Display = **Yes** For SET Temperature Error (-25.0 To 25.0 C)

- Press **SET** Key to Set Humidity Cooling Hysteresis  
Display = **r.c.hy** (1 To 25%)
- Press **SET** key to Set temperature Cooling Hysteresis  
Display = **t.c.hy** (0.2 To 25.0 C)
- Press **SET** Key to Set Maximum Temperature Range  
Display = **t.rnh** (400.0 C)
- Press **SET** Key to Set Minimum Temperature Range  
Display = **t.rnl** (-50.0 C)

### CONNECTION DIAGRAM

