35487-MP

Heat or Cool Thermostat

Enclosed, Multi purpose, compact digital thermostat with isolated relay output and 3digit 0.25" LCD display.
Features: Programmable set Point, Cool or Heat control, Hysteresis, Delay and High Temp. Alarm.
Control Temperature Range: -50 to +110 deg. "C"
Power: 6-30VDC
Current: ~80mA Relay open/~120mA Relay energized @ 12VDC
Refresh rate: 0.5sec.
Resolution: 0.1deg . from -9.99 to +99.9
1.0deg. for above 100deg. "C"
Accuracy: Measurement : 0.1deg.
Control: 0.1deg.
Relay: SPST-NO 10A/14VDC; 10A/125VAC
Sensor: 10K Ohm NTC Waterproof Stainless probe (.5m leads)
Module Temp. Range: -10 to 60deg. "C"; 5-95% humidity
Terminal Strip for Power & Relay contacts.
Cutout: 75mm X 39.5mm
W: 3-1/8in. **H:** 1-11/16in. **D**: 1-1/16in. **WT:** .1

Buttons: "▲" Up/Increase
"▼" Down/Decrease
"⚙" SET
"⏻" STOP Normal Mode
Enable/Disable in Setting Mode

Display: UPPER Normal Mode: Probe Temp
Quick Set Mode: Hysteresis
Full Set Mode: Hi Alarm/Restart Delay/
Correction Values
"OUT" Relay Contacts Closed/Flashing if Manual Off
"H" Heat Mode "C" Cooling Mode
"W" Working Mode (Normal Mode)
"SET" Set/Adjust Mode
"h" Restart Delay (OPH) Hold Time enabled
---- Selected Function (Hi-Temp Alarm (ALA) /Restart Delay (OPH) are Disabled)
SEE PG. 2

Operation:

1: Place Controller in desired location along with the probe
2: Connect Load to Controller Relay Contacts (Be sure Load power is off)
3: Connect 6-30VDC Power Supply to Controller
Display will show: Upper Line: Temperature at Probe tip
Lower Line: Present Mode ("**H**" or "**C**"), and Set Temperature
"h" if Restart Delay is Enabled
"W" Working (Normal Operating Mode)

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DURNING ANY SETTING: IF NO BUTTON(S) PUSHED FOR ~7SECONDS UNIT REVERTS TO WORKING MODE

Quick Set:

NOTE: If no adjustments are made within ~7 seconds, unit will revert to normal operation

1: Press SET (⏣) Button Momentarly

The Lower display will flash "**H**" or "**C**"

1.1: Press the ▲ or ▼ Buttons to alternate **Heat** or **Cool** Mode

2: Press ⏣ Button momentarly

The Lower display will flash the present set temperature

2.1: Press the ▲ or ▼ Buttons to adjust to the desired temperature value (0.1deg increments)

3: Press ⏣ Button momentarly

The Upper display will flash the present **Hysteresis** value

NOTE: Always put a value here! Otherwise the Relay may rapidly chatter

3.1: Press the ▲ or ▼ Buttons to adjust to the desired Hysteresis value (0.1deg increments)

Cool: Set temperature + Hysteresis value

Heat: Set temperature - Hysteresis value

Full Setting:

1: Setting the **High Temperature Alarm** Value (110^{O} C Max)

1.1: Press SET (⏣) Button AND Hold for >5 seconds

The Upper display will flash a "**----**" or a Value (---- Means Alarm is Disabled SEE Below)

The Lower display will show "**SET**" & "**ALA**"

If ---- Shows: Press "STOP" (⏻) Display will show a value

1.2: Press the ▲ or ▼ Buttons to adjust to the desired High Temp. Alarm Value (1deg increments)

1.3: To Disable/Enable High Temperature Alarm Function At a later Time

Press SET (⏣) Button AND Hold for >5 seconds

The Upper display will flash a "**----**" or a Value (---- Means Alarm is Presently Disabled)

The Lower display will show "**SET**" & "**ALA**"

Press **"**STOP**"** (⏻) Button (Alternate Pressing will alternate Enable/Disable)

NOTE: If the High Temperature limit is exceeded

Relay will Open, Display will Flash, Buzzer will sound

To Reset press Any Button

2: Setting the **Restart Delay (OPH)** (Prevents fast cycling 0-9999 minutes)

NOTE: Timer Starts when Relay Contacts Open

2.1: Press SET (⏣) Button AND Hold for >5 seconds

(The Upper display will flash a "**----**" or a Value)

(The Lower display will show "**SET**" & "**ALA**")

2.2 Press ⏣ Button again Momentarly

The Upper display will flash a "**----**" or a Value (---- Means Restart Delay is Disabled)

The Lower display will show "**SET**" & "**OPH**"

2.3: Press the ▲ or ▼ Buttons to adjust to the desired delay Value (1minute increments)

3: Setting the **Correction Factor** (Accuracy drift, aging) (+-10^{O}C)

NOTE: This Function is not normally used adds/subtracts from actual probe temperature

3.1: Press SET (⏣) Button AND Hold for >5 seconds

The display will be as above

3.2 Press SET (⏣) Button Momentarly Twice

The Upper display will flash a "**----**" or a Value

The Lower display will show "**SET**" & "**OFE**"

3.3: Press the ▲ or ▼ Buttons to adjust to the desired delay Value (0.1deg increments)

4: RESET:

4.1 Press AND Hold "SET" And "STOP" (⏻) Buttons