

## General



This HTW-31-F10BNT digital thermostat is designed to controls the fans, valves, dampers or electric heater in fan coil units and heating applications in industrial, commercial or residential environment.

## Technical Data

|                   |                |                  |                                        |
|-------------------|----------------|------------------|----------------------------------------|
| Power Supply      | - 230V 50/60Hz | Backlight        | - White                                |
| Power Consumption | - 1.5A         | Sensor           | - NTC 10K, 3950ohms at 25°C            |
| Set Point Range   | - 5~80°C       | Accuracy         | - + 1°C (step control by +0.5°C)       |
| Ambient           | - 0~50°C       | Protection Class | - IP30                                 |
| Relative Humidity | - 85%          | Housing          | - ABS to UL94-5 fire retardant plastic |

## Features

- Attractive modern styling
- Adjustable heating/cooling/ventilating mode control
- Adjustable manual 3-speed and automatic fan speed control
- 4pipe system
- Bacnet
- Keycard(Optional)
- External sensor(Optional)

## Display and Keys



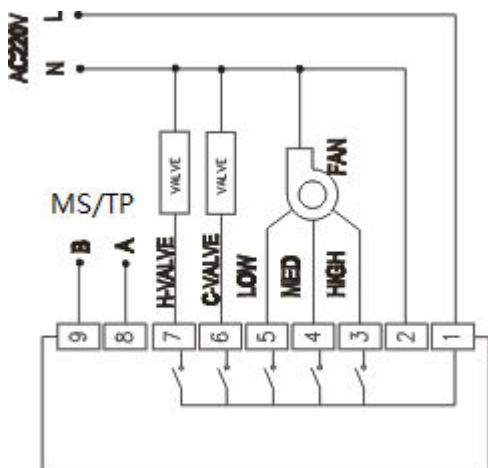
1. ON/OFF: press  to turn device on/off.
2. Modes select: Press  to adjust between Heat, Cool and Fan mode.
3. Fan Speed Adjust: Press  icon can change the fan speed among Low-Medium-High-Off-Auto status. When it is OFF, there is no Fan icon appears.
4. Temp Adjust: Press   can adjust the set-point or parameters.

### Installer Set-Up Process(ISU)

- Turn thermostat off first, and then long press  icon until screen displays.
- Press  switch to next parameter configuration
- Press **- +** to adjust the value on each parameter menu.

| Menu | Description                            | Range                                                                                             | Default       |
|------|----------------------------------------|---------------------------------------------------------------------------------------------------|---------------|
| 01   | Temperature Offset                     | -8 °C ~8°C                                                                                        | 0 °C          |
| 03   | Mode select                            | Heat/cool/fan<br>Heat/cool<br>Heat only;<br>Cool only;<br>Fan only                                | Heat/cool/fan |
| 04   | Set Point High Limit                   | 5 °C ~80°C                                                                                        | 50°C          |
| 05   | Set Point Low Limit                    | 5 °C ~80°C                                                                                        | 5°C           |
| 11   | Dead Band                              | 0.5 °C ~3°C                                                                                       | 1°C           |
| 15   | Fan status select when reach set-point | 0: No stop, working in low speed<br>1: Stop                                                       | 0             |
| 19   | Software Version                       |                                                                                                   |               |
| 21   | Bacnet Station id                      | 1~255                                                                                             | 1             |
| 30   | Bacnet MSTP Bandrate                   | 48 : 4800bps<br>96 : 9600bps<br>144 : 14400bps<br>192: 19200bps<br>384: 38400bps<br>768: 76800bps | 384           |
| 32   | Bacnet MSTP Instance ID High-Byte      |                                                                                                   |               |
| 33   | Bacnet MSTP Instance ID Low-Byte       |                                                                                                   |               |

### Wiring Diagram



## Object Lists for Various Models

### Bacnet MS/TP Thermostats

MS/TP Band: 38400, 8N1

| OBJECT NAME      | VALUES                | UNIT | OBJECT ID | OBJECT TYPE        |
|------------------|-----------------------|------|-----------|--------------------|
| Set Temperature  | 5 - 35                | C    | AO0       | Analog Output      |
| Room Temperature | 5 - 35                | C    | AI0       | Analog Input       |
| Operating Mode   | Cooling / Heating/Fan |      | MO0       | Multi-state Output |
| Fan Speed        | Auto/L/M/H            |      | MO1       | Multi-state Output |
| Onoff            | Off/On                |      | MO2       | Multi-state Output |
| Relay Status     |                       |      | MI1       | Multi-state Input  |
| FT-BAC           |                       |      | DEVICE    | Device             |

### Dimensions

