

# **HL108 Series Thermostats**

#### General

The HL108 series thermostats are stand-alone microprocessor based thermostats with LCD display. The thermostats are designed to on/off control the fans, valves, dampers or electric heaters in fan coil units and heating applications.

Models are available for heating/cooling/ventilating control of 2-pipe or 4-pipe fan coil units.

The fan speed can be manually controlled by the fan speed control pushbutton. It is wired to run high/medium/low speed continuously or to automatically change the fan speed.



#### **Features**

- Attractive modern styling makes this thermostat ideal for locating in the occupied space
- Digital LCD display of room ambient temperature and user selected temperature setting on demand
- Adjustable heating/cooling/ventilating mode control
- Adjustable manual 3-speed or automatic fan speed control and on/off control output for valve
- Infrared remote control available(optional)
- · Backlight function available(optional)
- Thermostat mounted directly onto a wall or standard junction box
- Model available for 110, 220 VAC power input also
- Reliable DC power supply by transformer
- · Reliable output by relays

#### **Main Functions**

Cool/Heat/Ventilation Change Control Manual/Auto Fan Speed Changeover

Room Temperature Setting Backlight function available(optional)

Detect and Display Room Temperature Remote Control (Optional)

Low Temperature Protection

### **Model Definitions**

| Model      | Control Mode |      |       | Fan 3-speed |      | Application |   |                    |                           |   | Control Capability |                    | Sub-feature       |    |  |  |
|------------|--------------|------|-------|-------------|------|-------------|---|--------------------|---------------------------|---|--------------------|--------------------|-------------------|----|--|--|
|            | Heat         | Cool | Vent. | Manual      | Auto | Damper      | • | 4-Pipe<br>fan coil | 2-wire<br>Motorized Valve |   | Cycling<br>Fan     | Auto<br>Changeover | Backlig           | IR |  |  |
| HL108Y     | ~            | ~    |       |             |      | ~           |   |                    |                           |   |                    |                    |                   |    |  |  |
| HL108DA    | ~            | ~    | ~     | ~           | ~    |             | ~ |                    | V                         |   |                    |                    | <b>_</b>          |    |  |  |
| HL108DA2   | ~            | ~    | ~     | V           | ~    |             | ~ |                    |                           | V |                    |                    | Optional function |    |  |  |
| HL108DB    | ~            | ~    | V     | ~           | ~    |             | V |                    | V                         |   | V                  |                    |                   |    |  |  |
| HL108DB2   | ~            | ~    | V     | ~           | ~    |             | V |                    |                           | V | V                  |                    |                   |    |  |  |
| HL108FCV2  | ~            | ~    | V     | ~           | V    |             |   | ~                  | V                         |   |                    |                    |                   |    |  |  |
| HL108AFCV2 | ~            | ~    | V     | V           | ~    |             |   | V                  | V                         |   |                    | V                  |                   |    |  |  |



## **Specifications**

**Supply Voltage:** 

220V(or any other volt.)  $\pm$  10%, 50/60Hz

**Setpoint Range:** 

5~35℃

**Setting Unit:** 

0.5 °C / step

Accuracy:

 $\pm$  0.5  $^{\circ}\mathrm{C}$ 

Display:

 $65{ imes}48$ mm LCD display

System Adjust:

5 push-button for Power, Mode, Fan speed, Up and Down

**Mode Setting:** 

Heating, Cooling and Ventilating

Fan Speed Adjust:

High, Medium, Low and Automatic fan speed control

**Cycling Fan Control:** 

Fan cycled running with thermostat

**Control Performance:** 

ON/OFF control

Differential:

1 ℃

**Thermostat Output:** 

SPST relay for 2-pipe models 2 SPST relay for 4-pipe models

**Electrical Rating:** 

2A run, 12A inrush

**Temperature Sensor:** 

NTC Thermistor 100K

**Enclosure:** 

Fire retardant PC ABS

**Minimum Operational Life:** 

Thermostat contacts: 100,000 cycles

Remote Controller(optional):

Infrared Remote Control

Backlight Function(optional):

Blue light

Dimensions:

86×86×13mm (W×H×D)

**Hole Pitch:** 

60 mm

**Environmental requirements:** 

Operating temperature range 0 ~ 40 °C, Humidity range 5 ~ 95 %RH (non-condensing)

Mounting:

Mounts directly onto wall, standard 86  $\times$  86 mm junction box (hole pitch 60 mm)

Wiring:

Screw-in terminals, each terminal capable of accepting 16 AWG, 18 AWG, 1.25 mm<sup>2</sup> or 0.75 mm<sup>2</sup> wires