

HT series Dew Point, Enthalpy/Wet Bulb Transmitter

PRODUCT DATA



Specifications

Sensor:	Capacitive CMOS chip
Power Supply:	24 VAC/VDC $\pm 10\%$
Current Output Load:	500 Ohm Max
Resolution:	14bit
Current consumption:	40mA Max
Working temperature:	
Room type	-30°C ~ +70°C
Duct/OSA type	-50°C ~ +70°C
	5% ~ 95% RH without condensation
Transport and Storage	
Temperature :	-50°C ~ +85°C
Housing Material:	Plastic (ABS)
	Flame retarded acc. to UL94-V1
Protection Standard:	
Room type	IP30
Duct/OSA type	IP65
Calibration:	Factory calibrated

Application

HT series Dew Point, Enthalpy/Wet Bulb Transmitters are designed for use with building automation, energy management, and computer / monitoring systems.

These sensors can be used for HVAC system, hospitals, greenhouse, food storage, and incubators.

Features

- 4~20mA output
- Option for resistance temperature sensor
- LCD display optional
- Duct mount , Wall Mount and OSA models
- Temperature range is selectable in one model
- High reliability & accuracy
- Wide sensing range
- Rapid response

Dew Point, Enthalpy and Wet Bulb

Measurement Range:	
Dew Point	0~50/0~25/ $\pm 50^\circ\text{C}$ Selectable
Enthalpy	0~50/0~100 BTU Selectable
Wet Bulb	-6.6~49°C (20~120°F)
Output:	4~20mA
Long Term Stability:	$\pm 1\%$ RH; typical at 50% RH in five years

Temperature

Measurement Range:	0~50°C, 0~100°C, -50~50°C
	Range selected by Jumper (0~50°C as default)
Output:	4~20mA
Accuracy:	$\pm 0.5^\circ\text{C}$ (0~50°C) With transmitter
Long Term Stability:	$\pm 0.25^\circ\text{C}$ per year

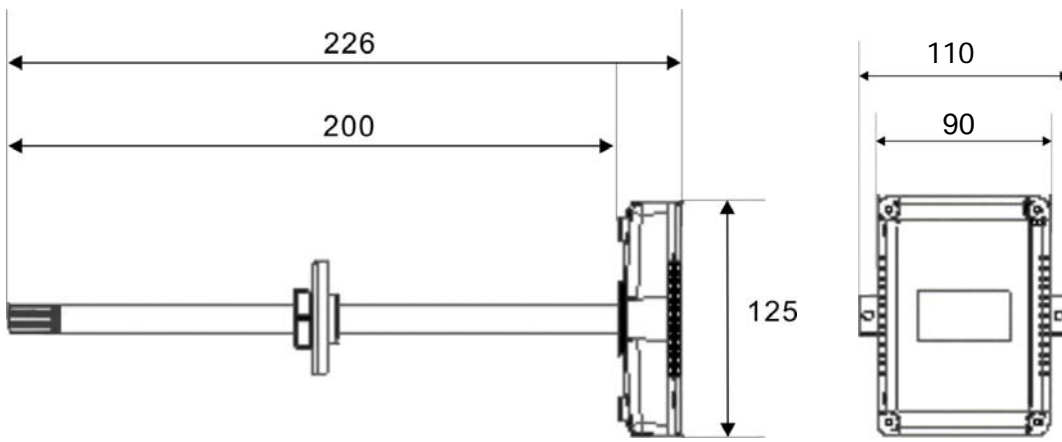


Model Selection

THT	Dew point + temp. transmitter	Base model	
THD	Dew point + temp. transmitter w/LCD		
TWT	Enthalpy/Wet Bulb(select by dip sw.) + temp. transmitter		
TWD	Enthalpy/Wet Bulb(select by dip sw.) + temp. transmitter w/LCD		
	2	Space mount	Housing
	3	Duct mount 12" probe	
	8	OSA	

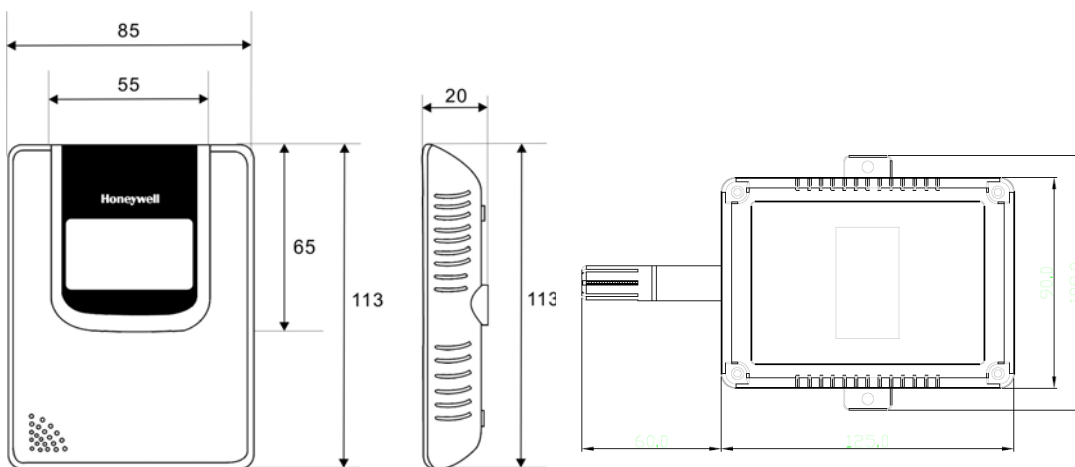
Dimension

Duct mount Sensor / Transmitter



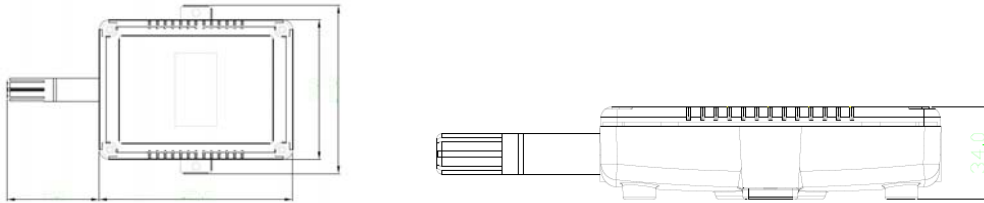
Dimension in mm

Wall mount Sensor / Transmitter

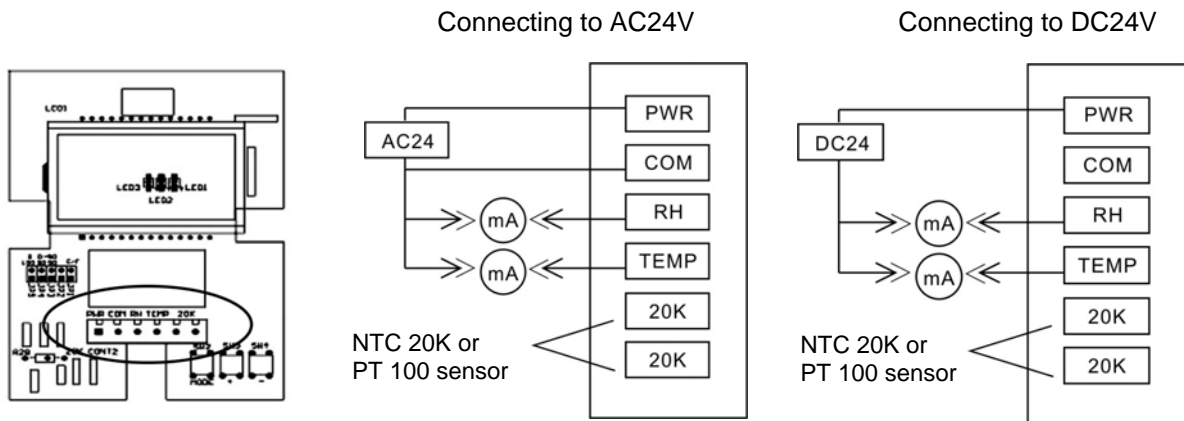


Dimension in mm

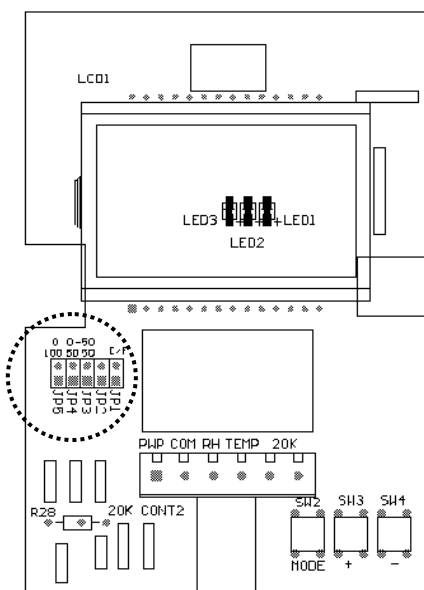
Outside Air / Transmitter



Wiring



Temperature Range Selection



Jumper setting

1. By selecting JP1 to "0" position, the display shows Celsius mode; by selecting JP1 to "1" position, the display shows Fahrenheit mode.

Temperature range	JP3	JP4	JP5
0~50°C	0	1	0
0~100°C	0	0	1
-50~50°C	1	0	0

2. By selecting JP2 to "1" position, the unit will commence the mode adjustment. After completion of mode adjustment, the unit will enact the mode setting.
3. JP3, JP4, and JP5 are used to select temperature range.

**INSTALLATION GUIDE FOR
DUCT MOUNT SENSOR OR TRANSMITTER :**

- Drilling a mounting hole with diameter 13mm on the duct near measuring point. Insert the probe pipe into duct.
- Unscrew & open the front cover of the product.
- Use enclosed screws to install the wiring box on the duct.
- Lead wire from DDC or PLC panel through opening by using a properly sized screw driver to connect each wire to the terminals of the transducer module according to field wiring diagram.
- Put front cover back and tighten front cover by screw.

**INSTALLATION GUIDE FOR
WALL MOUNT SENSOR OR TRANSMITTER :**

- Remove the front cover and place the back panel to the desired location.
- Attaching the enclosed screws to the back panel.
- Use a properly sized screw driver to connect the lead wires to the terminals

- Place the front cover to the back panel.
- Keep the sensor or transmitter away direct sun light, heat source and cold source.
- The recommended location of wall mount sensor or transmitter is 1.5M above the ground.

ATTENTION:

Absolutely avoid extreme mechanical and unspecified strain.

When using a 24 VAC transformer, use an isolated transformer. If sharing the transformer with your controller, valve, actuator, or any other device, be sure to connect all of the devices with the proper polarity, since most controllers are earth grounded. Failure to do so may result in damage to the transducer, your controller, or any other devices that are attached due to a ground loop problem.



Electrical Shock or Equipment Damage Hazard.
Can shock individuals or short equipment circuitry.
Disconnect power supply before installation.

Honeywell

Automation and Control Solutions

Honeywell Taiwan Ltd.
10F, 168 Lien Cheng Road
Chung Ho City, Taipei County, Taiwan
Phone: +886-2-2245 1000
Fax: +886-2-2245 3241

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