Honeywell

HT series

Humidity & Temperature Sensor and Transmitter

PRODUCT DATA

Application

HT series Humidity and Temperature 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, 0~10VDC or Mod-bus output for both humidity and temperature
- Option for resistance temperature sensor
- LCD display option for both humidity / temperature
- Various mounted types selectable
- Temperature range is selectable in one model
- High reliability & accuracy
- Wide sensing range
- Rapid response

Specifications

Relative Humidity

Sensor Element:	Capacitive Polymer with CMOS processes
Measurement Range:	0~100%RH
Signal Output:	4~20mA ,0~10VDC or Mod-bus
Accuracy:	±2%RH(20℃, 20~80%RH)
	±3%RH(20℃, 20~80%RH)
Long Term Stability:	±1%RH; typical at 50% RH in five years

Temperature

Temp Sensor:	NTC20k, Pt100 , Pt1000
Measurement Range:	0~50℃, 0~100℃, -50~50℃ Range selected by Jumper (0~50℃ as default)
Signal Output:	4~20mA , 0~10VDC or Mod-bus NTC20k, Pt100, Pt1000
Accuracy:	±0.3℃ at 25℃ for NTC20k sensor
	±0.2℃ at 25℃ for Pt100, Pt1000 sensor
	±0.2℃ (0~50℃) With transmitter
Long Term Stability:	±0.25℃ per year

Power Supply:	24 VAC/VDC ±10%
Current Output Load:	500 Ohm Max
Working temperature:	
Room type	-30℃ ~ +70℃
Duct type	-50℃ ~ +70℃
	5% ~ 95% RH without condensation
Certification:	CE Report No. HA110097
Housing Material:	Plastic (ABS) Flame retarded acc. to UL94-V1

Protection Standard

Room type	IP30
Duct, OSA or Immersion	IP65
Calibration:	Factory calibrated

Model Selection

Combined Humidity and Temperature sensor or transmitter

HT3	3% RH transmitter			**Base model**
HT2	2% RH transmitter			
HD3	3% RH transmitter w/LCD			
HD2	2% RH transmitter w/LCD			
	C	4~20mA output		**Humidity output**
	V	0~10V output		
	M	RS485 with Modbus (RH+Temp. model only)		
		2	Wall mount	**Housing**
		3	Duct mount 12" probe	
		7	Remote Sensor	
		8	Outside Air	
			0 No temp. output	**Temp. range**
			1 w/temp. Xmitter 0~50C (0~100 by dip sw.)	
			P w/Pt 100 sensor	
			Q w/Pt 1000 sensor	
			K w/NTC 20k sensor	

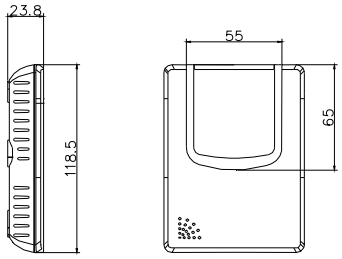
Temperature sensor or transmitter

T7	Temp. sensor/transmitter(Pt100)			**Base model**
TD	Temp. transmitter w/LCD(only for Transmitter)			
	2	Space mount		**Housing**
	3	Duct mount 12" probe		
	4	Immersion mount 4" probe		
	6	Immersion mount 6" probe		
	7	Remote Sensor		
	8	Outside Air		
	9	Duct 20' Ave (only for Pt100 or 4~20mA)		
		C1	w/temp. Xmitter, 4~20mA, 0~50C	**Output & range**
		V1	w/temp. Xmitter,0~10V, 0~50C	
		M	RS485 with Modbus	
		K	w/NTC 20k sensor	
		L	w/NTC 10k sensor	
		P	w/Pt 100 sensor	
		Q	w/Pt 1000 sensor	

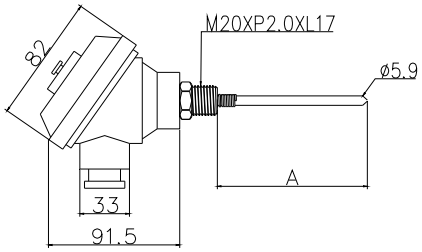
TI	Industrial Temp. Transmitter, IP67			**Base model**
	4	Immersion mount 4" probe		**Probe Length**
	6	Immersion mount 6" probe		
	8	Immersion mount 8" probe		
		C1	Pt100 w/temp. Xmitter, 4~20mA, 0~50C	**Output & range**
		C2	Pt100 w/temp. Xmitter, 4~20mA, 0~100C	
		C3	Pt100 w/temp. Xmitter, 4~20mA, -50~50C	
		K	w/NTC 20k sensor	
		L	w/NTC10k sensor	
		P	w/Pt 100 sensor	
		Q	w/Pt 1000 sensor	

Appearance and Dimension (Dimension in mm)

Wall mount Sensor / Transmitter

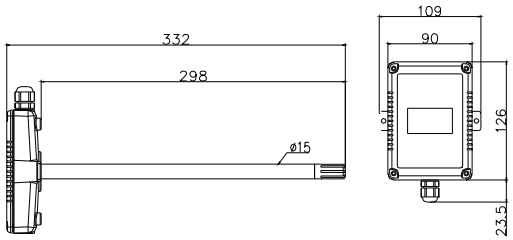


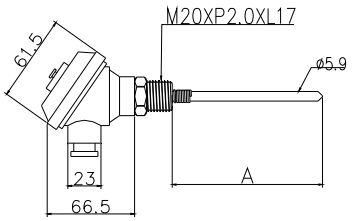
IP67 Industrial Temp. Transmitter/Sensor



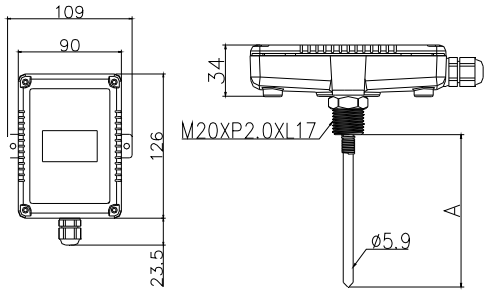
PIPE SIZE	A(mm)
4"	101.6
6"	152.4
8"	203.2

Duct mount Sensor / Transmitter



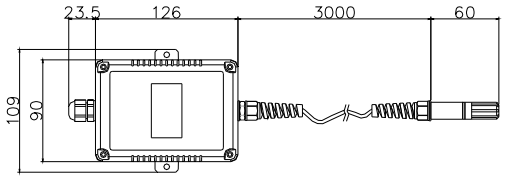


Immersion mount Sensor / Transmitter

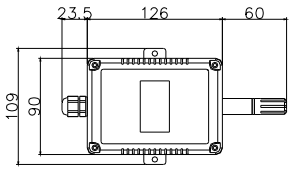


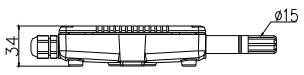
PIPE SIZE	A(mm)
4"	101.6
6"	152.4

Remote Sensor / Transmitter

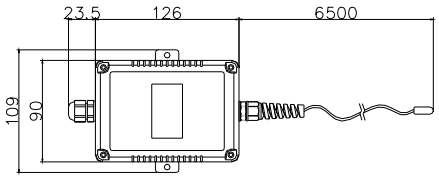


Outside Air Sensor / Transmitter

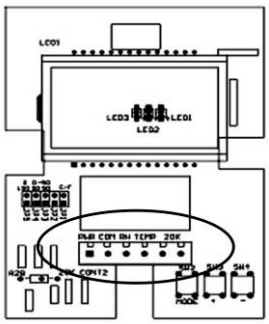




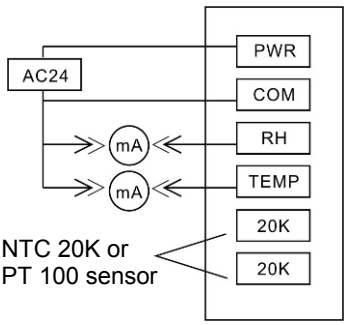
Duct Average Sensor / Transmitter



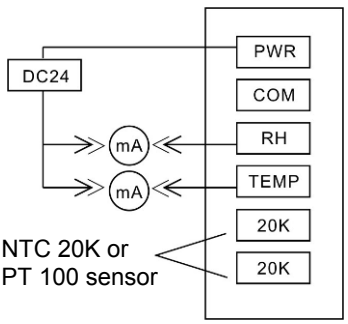
Wiring



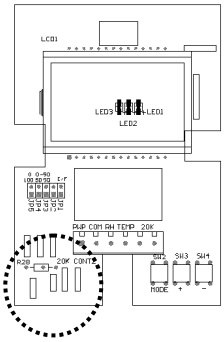
Connecting to AC24V



Connecting to DC24V



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℃	0	1	0
0~100℃	0	0	1
-50~50℃	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.
- Use a properly sized screw driver to connect the lead wires to the terminals.

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.
- 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.

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