NotionControl

THE INTELLIGENT POINT OF BUILDINGS

TTC

Temperature Transmitter & Controller

Applications

TTC wall mount digital multifunction temperature transmitters/controllers are designed for environment monitoring and controlling in industrial and commercial buildings.

They can be used for indoor air temperature monitoring in various industrial plant, clean room, lab, machine room, office, airport, station, library and stadium, etc.

Features

- High performance digital temperature sensor, ensure accurate measurement fast response and good long term stability
- Light and state of art housing, easy installation and wiring.
- Multiple outputs selection
- Digital technology applied, over voltage and reverse polarity protection, high reliability and interference capability
- Optional relay for alarm or ON/OFF control
- Wide working temperature range
- The OP can set parameters and calibrate output, so that the product becomes a stand alone controller

Specifications

Sensor: Digital temperature sensor,
Range: 0~50°C, or others (transmitter)
Output: 4~20mA,0~10VDC,RS485/Modbus
Output Load: ≤600Ω(current), 2KΩ(voltage)
Relay: 1×SPDT,1A/30VDC/0.5A/125VAC
Accuracy: <±0.5°C@ -10~85°C
Power: 18~30VAC/DC
Display: LCD display
Display Resolution: 0.1°C
Work Temperature: -40~85°C, 0~95%RH (Non condensing)
Storage Temperature: -40~85°C
Housing: Fireproof ABS
Protection: IP30

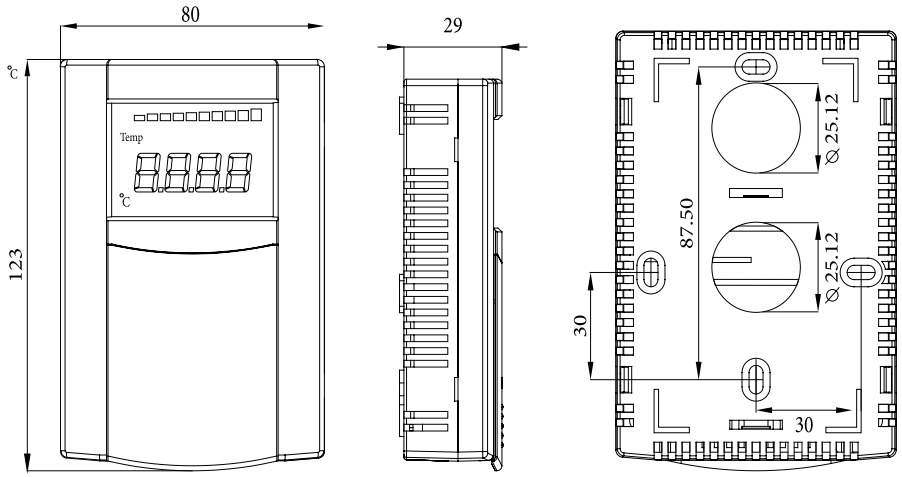
Models

Description	Code				
Temperature Transmitter & Controller	TTC				
Output					
4-20mA/0-10VDC		1			
4-20mA/0-10VDC, RS485, Modbus		B			
Range					
0~50°C			1		
Others			7		
Relay					
No				0	
1*SPDT				1	
LCD & OP					
No					0
LCD					1
OP					2

Optional LCD display: LCD display panel could be ordered and installed in field separately. See details on OP product.

Optional OP operation panel: Including LCD, integrated with function keys, can be ordered and installed in field separately. See details on OP product.

Dimension (mm)



TTC
Temperature Transmitter & Controller

NotionControl

THE INTELLIGENT POINT OF BUILDINGS

TS and TT

Temperature Sensor / Transmitter

Applications

TS and TT series temperature sensors/transmitters are designed for immersion or critical temperature monitoring in industrial and commercial HVAC systems.

These sensors/transmitters can be used for temperature monitoring in duct air, water/vapor pipe and outside air in various industrial plant, clean room, lab, machine room, office, airport, station, library and stadium, etc.

- High performance thermistor/RTD, ensure accurate temperature measurement
- Up to date IC circuit and SMT technology, ensure good long term stability and reliability
- Multiple output signals selectable
- Fast response
- High protection rate up to IP65

General Specifications

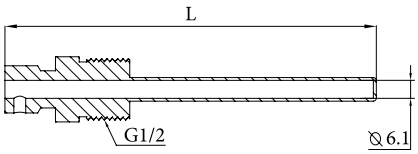
Work temperature: -40~85°C, 0~95%RH(Non condensing)
Storage temperature: -40~85°C
Housing: ABS Enclosure, SS probe, SS Sintered Filter, SS Well
Protection: IP65

TS series temperature sensor
Sensor: High accuracy thermistors/RTD, class A
Output: Thermistors/RTD, 2 or 3 wires
Accuracy: Typical 0.2°C@25°C
Wiring: 2 wires or 3 wires
(3 wires connection will obtain better accuracy)

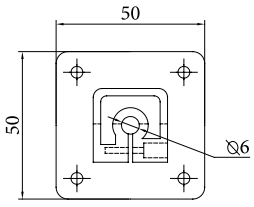
TT series temperature transmitter
Sensor: PT100/1000, Class A
Range: -40~100°C, see Models
Output: 4~20mA/0~10V/RS485
Total accuracy: <±0.5°C@25°C
Power: Voltage 15~35VAC/DC, current 7.5-36VDC
Output load: <500Ω (current), >2KΩ (voltage)

Accessories

TSI/TTI Stainless steel well

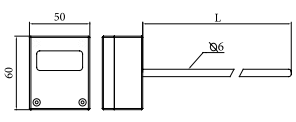


TSD/TTD Install Flange

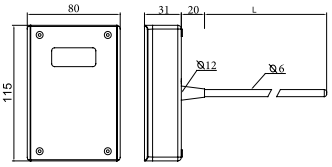


Dimension (mm)

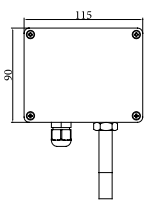
TSD/TSI



TTD/TTI



TSO/TTO



Models

Description	Code		
Wall mount temperature sensor	TSR		
Duct mount temperature sensor	TSD		
Outside air temperature sensor	TSO		
Immersion temperature sensor	TSI		
Thermistor/RTD Selections			
PT1000, ±0.2˚C@25˚C		3	
PT100, ±0.2˚C@25˚C		4	
NTC20K, ±0.2˚C@25˚C		5	
Ni 1000, ±0.4˚C@25˚C		6	
NTC10K-II, ±0.2˚C@25˚C		7	
NTC10K-III, ±0.2˚C@25˚C		9	
NTC10K-A, ±0.2˚C@25˚C		A	
Length (TSD/TSI)			
125mm (TSD/TSI)			1
200mm (TSD/TSI)			2
Others (TSD/TSI)			7

Description	Code			
Wall mount temperature transmitter	TTR			
Duct mount temperature transmitter	TTD			
Outside air temperature transmitter	TTO			
Immersion temperature transmitter	TTI			
Output				
0-10VDC		1		
4-20mA		2		
Range				
0-50˚C			1	
0-100˚C			2	
-40-60˚C			3	
Others			7	
Length (TTD/TTI)				
125mm				1
200mm				2
Others				7

TSI/TTI Install Well	Code	
Stainless Steel Well	TW	
Output		
125mm		1
200mm		2

TS and TT
Temperature Sensor / Transmitter

NotionControl

THE INTELLIGENT POINT OF BUILDINGS

HTTR

Wall Mount Humidity & Temperature Transmitter

Relative humidity:
Sensor: Capacitance polymer
Range: 0~100%RH
Output: 4~20mA /0~10VDC/RS485
Accuracy: 2%, 3%, 4.5%RH (25°C,20~80%RH)
Hysteresis: <±1%RH
Response time: <10s(25°C, in slowly flow air)
Drift: <±0.5%RH/year

Temperature
Sensor: Solid state band gap, RTD or thermistors
Range: 0~50°C for transmitter
Output: 4~20mA/0~10VDC/RS485, RTD or thermistors
Accuracy: <±0.5°C@25°C

Applications
HTTR wall mount temperature and humidity transmitters are designed for environment monitoring and controlling in industrial and commercial buildings. These transmitters can be used for indoor air temperature and humidity monitoring in various industrial plant, clean room, lab, machine room, office and airport, station, library and stadium, etc.

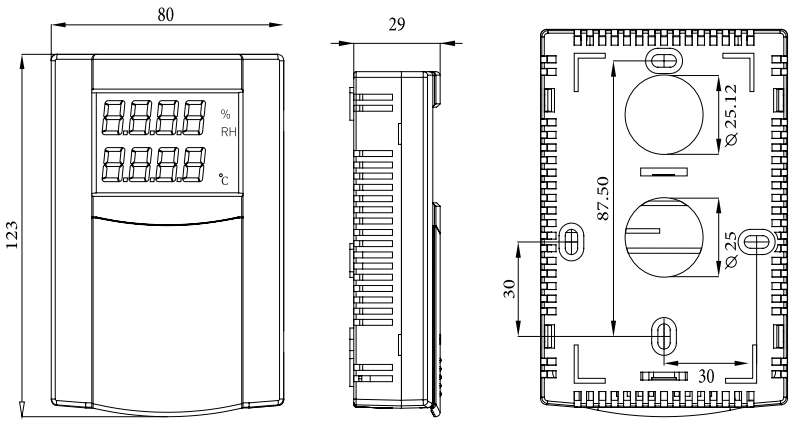
- High performance digital sensors and circuits, ensure accurate measurement and temperature compensation
- Good long term stability and reliability
- 100% field changeable sensors, no re-calibration needed
- Fast response
- State of art enclosure design
- Multiple output signals selectable

General Specifications
Power: Voltage 15~35VAC/DC, current 7.5-36VDC
Output load: <500Ω (current), >2KΩ (voltage)
Display: Large LCD screen digital display, optional
Display accuracy: 0.1°C, 0.1%RH
Display resolution: 0.1°C, 0.1%RH
Temperature limit: 0~70°C, 0~95%RH (Non condensing)
Storage temperature: -20~80°C
Housing: ABS Enclosure
Protection: IP30

Models

Descriptions	Code					
Wall mount H/T transmitter	HTTR					
Output						
±2%RH		2				
±3%RH		3				
±4.5%RH		5				
RH Output (0-100%RH)						
0-10VDC			1			
4-20mA			2			
RS485, Modbus			8			
Temperature Output						
No				0		
0-10VDC				1		
4-20mA				2		
PT1000, ±0.2˚C@25˚C				3		
PT100, ±0.2˚C@25˚C				4		
NTC20K, ±0.2˚C@25˚C				5		
Ni 1000, ±0.4˚C@25˚C				6		
NTC10K-II, ±0.2˚C@25˚C				7		
RS485, Modbus				8		
NTC10K-III, ±0.2˚C@25˚C				9		
NTC10K-A, ±0.2˚C@25˚C				A		
Temperature Range						
No					0	
0-50˚C					1	
Others					7	
LCD						
No						0
Yes						1

Dimension (mm)



HTTR
Wall Mount Humidity &
Temperature Transmitter

NotionControl

THE INTELLIGENT POINT OF BUILDINGS

HTTD, HTTO and HTTS

Humidity & Temperature Transmitter

Relative humidity:
Sensor: Capacitance polymer
Range: 0~100%RH
Output: 4~20mA /0~10VDC/RS485
Accuracy: 2%, 3% and 4.5%RH(25°C, 20~80%RH)
Hysteresis: <±1%RH
Response time: <10s (25°C, in slowly flow air)
Drift: <±0.5%RH/year

Temperature
Sensor: Solid state band gap, RTD or thermistors
Range: 0~50°C for transmitter
Output: 4~20mA/0~10V/RS485, RTD or thermistors
Accuracy: <±0.5°C@25°C

Applications

HTTD, HTTO and HTTS humidity and temperature transmitters are designed for environment monitoring and controlling in industrial and commercial buildings. These transmitters can be used for:

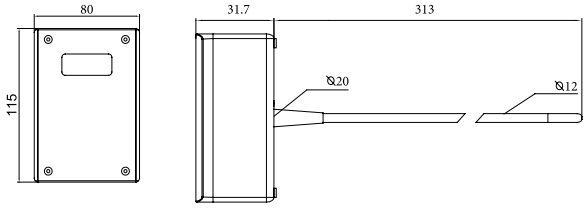
- Humidity and temperature monitoring of supply, exhaust and return air (HTTD, duct mount)
- Humidity and temperature monitoring in critical environment such as outside air (HTTO, outside mount)
- Other applications of immersion humidity and temperature monitoring (HTTS, separate probe)
- High performance digital sensors and circuits, ensure accurate measurement and temperature compensation
- Good long term stability and reliability
- 100% field changeable sensors, no re-calibration needed
- Fast response
- Multiple output signals selectable
- Industrial design, SS probe and selectable filter
- High protection rate up to IP65

General Specifications

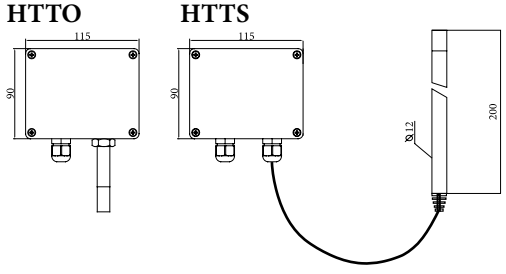
Power: Voltage 15~35VAC/DC, current 7.5-36VDC
Output load: <500Ω (current), >2KΩ (voltage)
Temperature limit: -40~85°C, 0~95%RH (Non condensing)
Storage temperature: -40~80°C
Housing: ABS Enclosure, SS probe, SS sintered or mesh filter
Protection: IP65

Dimension (mm)

HTTD



HTTO **HTTS**



Models

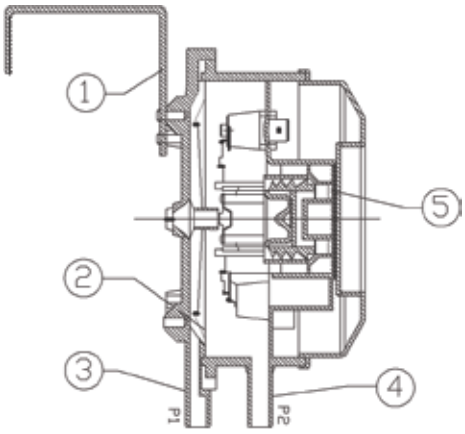
Descriptions	Code					
Duct mount temp./RH transmitter	HTTD					
Outside air temp./RH transmitter	HTTO					
Separate temp./RH transmitter	HTTS					
RH Accuracy						
±2%RH		2				
±3%RH		3				
±4.5%RH		5				
RH Output (0-100%RH)						
0-10VDC			1			
4-20mA			2			
RS485, Modbus			8			
Temperature Output						
No				0		
0-10VDC				1		
4-20mA				2		
PT1000, ±0.2˚C@25˚C				3		
PT100, ±0.2˚C@25˚C				4		
NTC20K, ±0.2˚C@25˚C				5		
Ni 1000, ±0.4˚C@25˚C				6		
NTC10K-II, ±0.2˚C@25˚C				7		
RS485, Modbus				8		
NTC10K-III, ±0.2˚C@25˚C				9		
NTC10K-A, ±0.2˚C@25˚C				A		
Temperature Range						
No					0	
0-50˚C					1	
0-100˚C					2	
-40-60˚C					3	
Others					7	
Filter						
Stainless steel mesh						0
Stainless steel sintered						1

HTTD, HTTO and HTTS
Humidity & Temperature Transmitter

DPS

Differential Pressure Switch

Pressure limit: 7500Pa
Working temperature: -20~ 85°C
Pressure connection: φ6.0mm plastic pipe, P1 high and P2 low pressure
Service life: Over 10^6 switching cycles
Electrical Contact: SPDT, max. 2A/250VAC, max. frequency 6 switching cycles/min
Materials: Housing PC, cover PC, diaphragm silicone and contact silver
Weight: 140g with bracket, 90g without bracket
Protection: IP54 with cover



Applications
Monitor overpressure, vacuum and differential pressure for air and compatible gases. Possible applications are: monitor air filters and ventilators, monitor air status in heating and cooling circuits, monitor flows in ventilation duct other applications.

General Specifications
Installation: Vertical, pressure ports P1 and P2 downward.
This is the factory-calibrated position. If horizontally installation needed, the switching value should plus about 20pa (cover upward) and minus about 10pa (cover downward).

Accessory (AC1): the pressure connection set includes plastic pipe 2m, 2 pressure connection parts and 4 screws.

Remark
It is for the one with bracket, the left one in the lower left picture of this page. Another style with installation ear is the right one in the picture. The two styles are for different applications. Their internal structures are the same.

Structure
1. Bracket for installation
2. Diaphragm
3. P1 high pressure or low vacuum
4. P2 low pressure or high vacuum
5. Scale dial (switching point setting)

DPS
Differential Pressure Switch

Models

	DPS	x	x	x	Scales for Different Units			
Enclosure	With install ear	0						
	No ear, with bracket	1			mbar	inch wc	mm wc	deadband*
Adjustable range	20-300Pa		0		0.2-3	0.08-1.2	2-30	10Pa
	50-500Pa		1		0.5-5	0.2-2	5-50	20Pa
	100-1000Pa		2		1-10	0.4-4	10-100	20Pa
	0.5-2.5KPa		3		5-25	2-10	50-250	30Pa
Engineering unit	Pa			0				
	mbar			7				
	inch wc			8				
	mm wc			9				

* The deadband is factory set.

DPS Accessories	
AC 1	Individual accessory package:clear PVC tube 2mt,connectors 2pcs, screws 4pcs
AC 2	Clear PVC tube 2mt
AC 3	Plastic connector 1pcs

Dimension (mm)