Temperature and Humidity Transducer with Bacnet & Modbus port

Description

Duct temperature and humidity sensor / transmitter is applicable to all kinds of building automation, environment monitoring, HVAC systems. Product appearance is simple, direct connection terminals, convenient installation.Products use high performance embedded microprocessor, and high-precision sensors to meet all kinds of high precision,high stability of the temperature and humidity measurement requirements , and variety needs of different environments.Duct temperature sensor / transmitter has current, voltage, 485 output signal to select, using 485 serial port out put and Modbus communication protocol. It is commonly used in HVAC, electrical plant,environment monitoring,dynamic environment monitoring, agricultural environmental monitoring, meteorological environmental monitoring,environmental monitoring of biological pharmacy, airport, subway stations, hotel,museum,

XDUCER-D-TH

Higslights

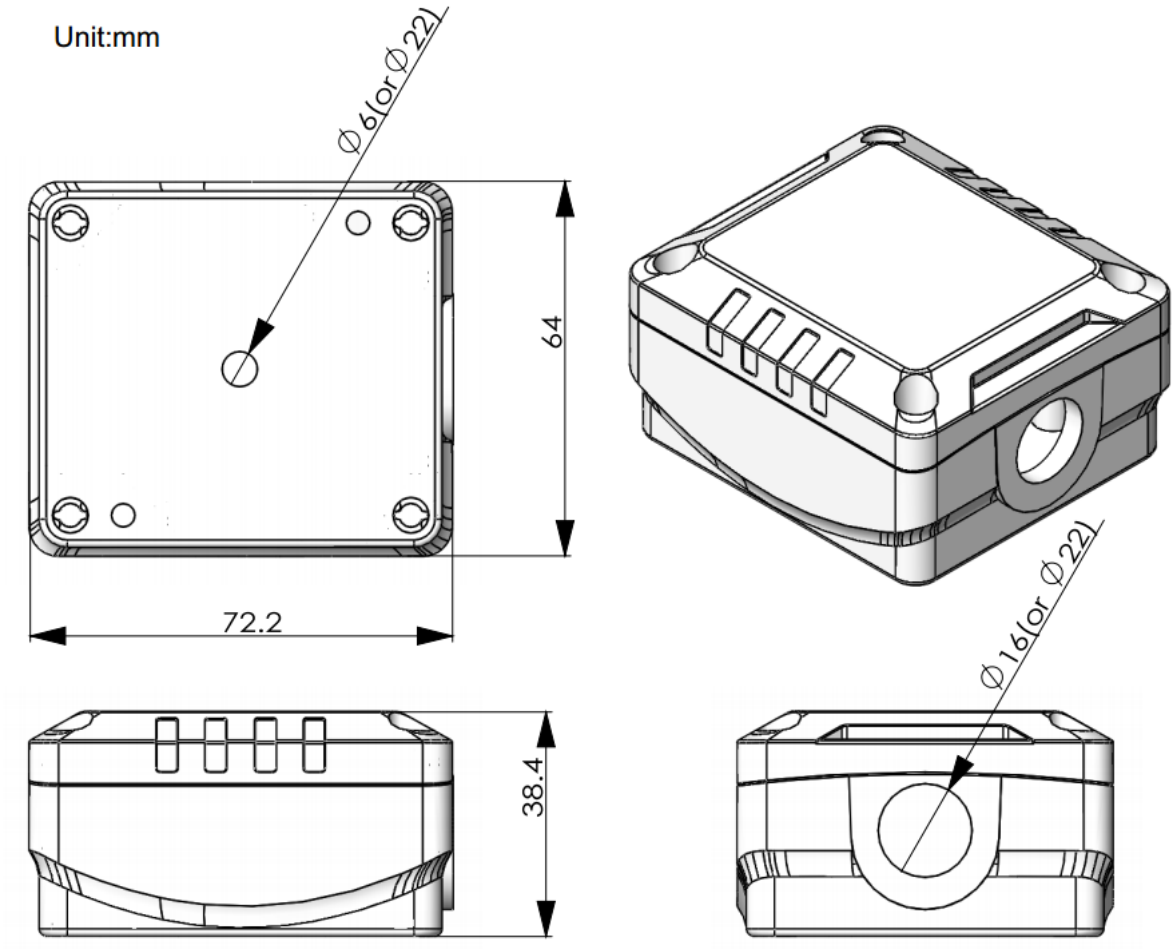
-High precision temperature and humidity sensor
-Applicable to all types of air environmental monitoring
- HVAC systems
-Advanced circuit design, high accuracy,stable performance
-Appearance is concise,easy to install, cost-effective

XDUCER-D-T

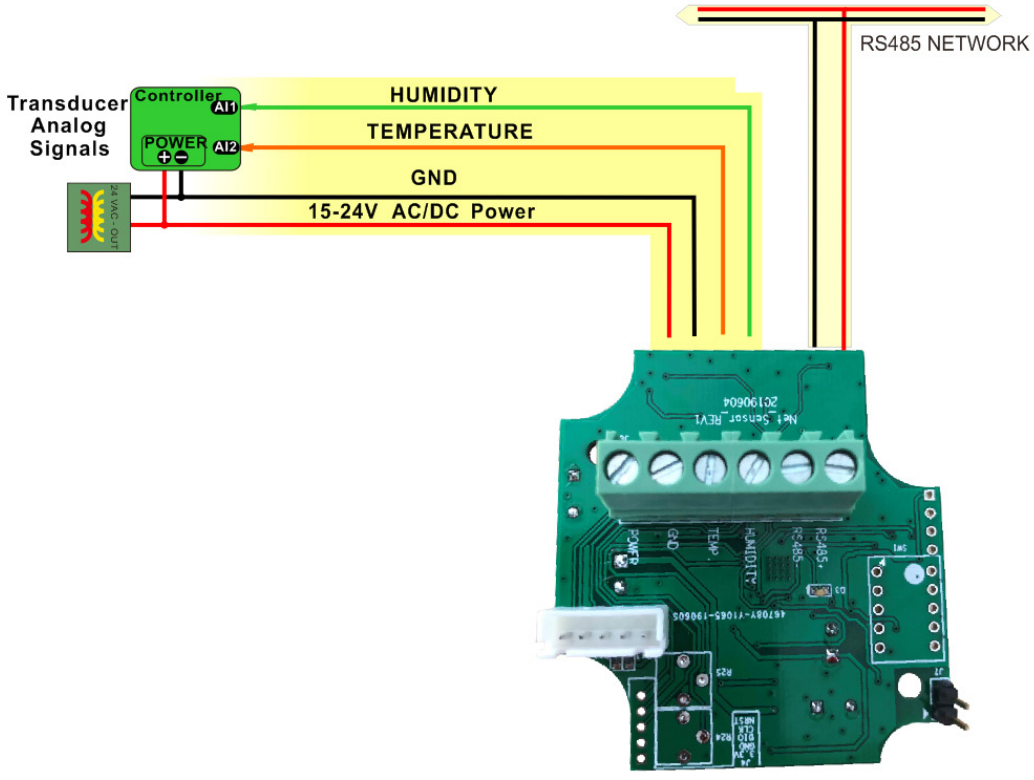
Specifications

Typical Application	Duct Mount Indoors		
Output Signal Type	420mA,0-10V		
Output Signal Drice	>500Ω for mA mode,75 mA max output drive for voltagemode		
Power	15-24V+/-10%,AC or DC,1 watt typical		
Operating Temp	-50~+60℃, 0-95% non condensing		
Plastic Housing	Flammability rating UL 94V0 file E194560		
Control Features	N/A		
HUM	Sensor Type	Capacitive	
	Range	0-100%Non-Condensing	
	Accuracy	3%@25℃,20-80%	
	Drift	<0.5%RH/year	
TEMP	Sensor Type	10K thermistor	
	Range	-40-150℃(-60~340 ℉)	
	Accuracy	<±0.5℃@25℃	
Size	72mmX64mmX38.4mm		
Protocol	Modbus	Data Bit	8
Modbus ID	1	Odd/Even Parity	None
Baud Rate	115200	Stop Bit	1

Dimension



Wiring Diagram



Part Number Scheme

XDUCER — D — TH

Code	Description
XDUCER	Transducer Sensor

Code	Module
D	Duct Mount

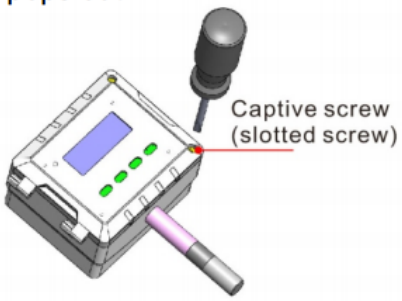
Code	Option
T	Temp
TH	Temp & Hum

Mounting Installation

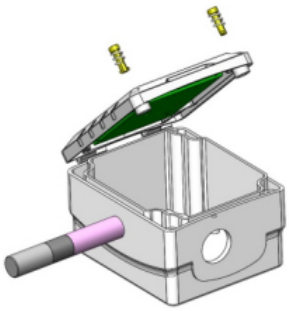
1)slotted screwdriver

Captiver screw(slotted screw)

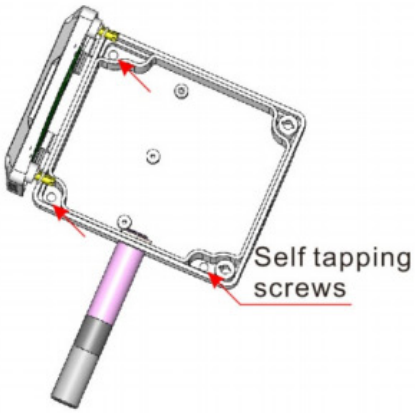
2)Unfasten screw at cover,turn the captive screw ½ turn till it pops out

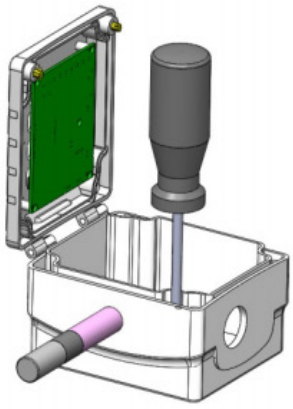


3)Open the cover

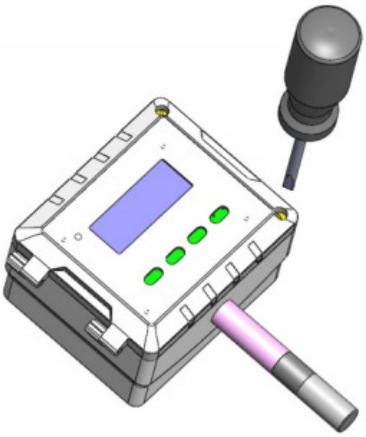


4)There are three small holes as red arrows showed below inside the box for fastening self tapping screws drilling the hole in the duct with a template

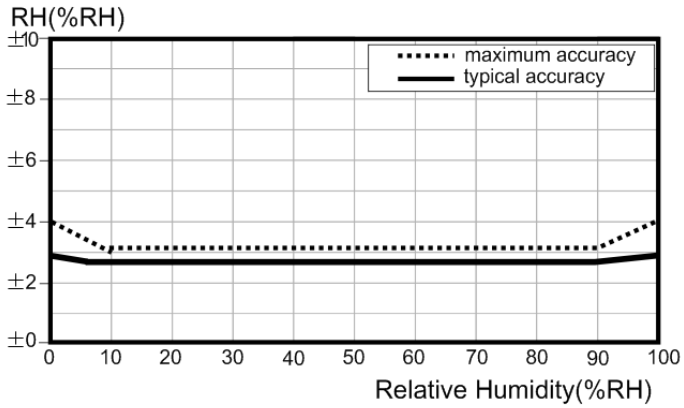


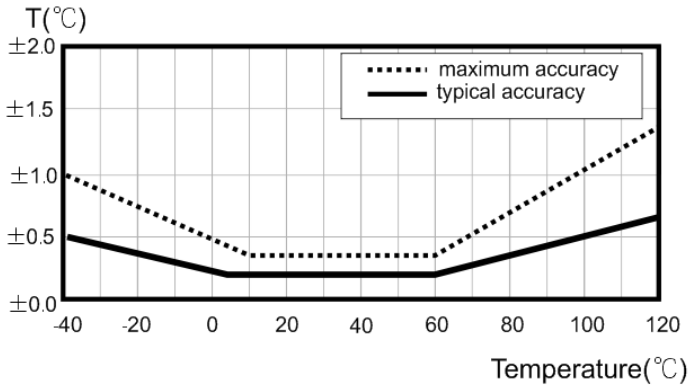


5)Re-fasten screw at cover



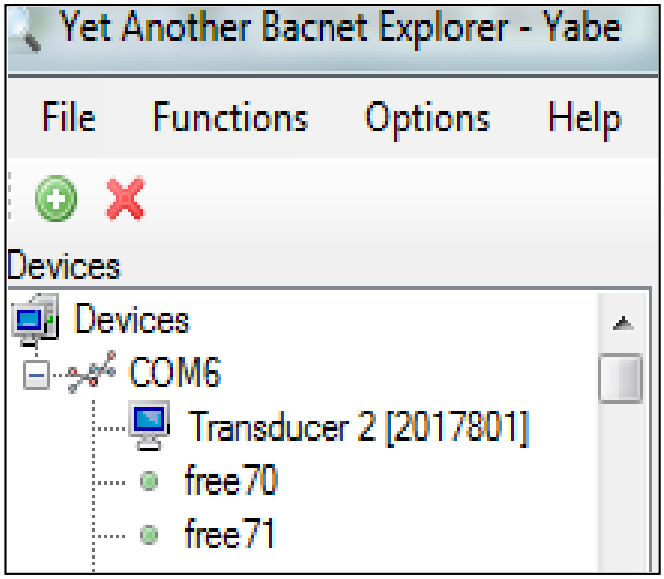
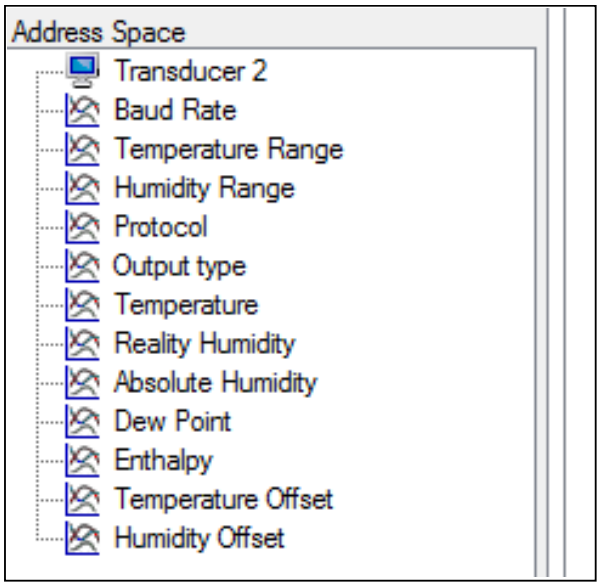
Accuracy Curves





Modbus Register List

Address	Register and Description
0-3	Serial number
4	Software version
6	Modbus address
8	Hardware version
17	1=0.....10V,0=4.....20mA
18	0=0-100,1=-20....80,2=0....50,3=-50.....50
19	0=dewpoint,1=enthalpy,2=absolute humidity,3=reasl humidity
25	Potentionmeter R1 AD value
27	Potentionmeter R2 AD value
34	SHT 35 temperature
35	SHT 35 humidity
45	NTC temperature
36	Potentionmeter R1 offset value
37	Potentionmeter R2 offset value
38	Temperature with offset
39	Humidity with offset
41	Dew point value
42	Enthalpy value
44	Absolute humidity
51	Test switch,if on, input voltage to register 52,53
52	Input voltage for temperature output,500 mean 5.00v
53	Input voltage for humidity output ,500 mean 5.00v
54	Input current for temperature output,4 mean 4mA
55	Input current for humidity output, 4 mean 4mA
60-76	NTC sensor17 calibration point
80	NTC sensor's AD value

Bacnet Object List

Supported Bacnet Object Types		
analog-value,device		
Supported Bacnet Services		
Who-is, i-am		
object-identifier, object-name, object-type,present-value,units,object-list,vendor-id, vendor-name,system-status,confirmes-service,unconfirmed-service		
MSTP Object		
Analog-Value	AV0:baudrate select	
	AV1:Temperature range	0=0-100℃ 1=-20.....80℃， 2=0...50℃ 3=-50...50℃
	AV2:Humidity range	0=dewpoint,1=enthalpy,2=absolute humidity,3=real humidity
	AV3:Protocol	0=Modbus; 1=Bacnet
	AV4:Output type	0=4~20mA, 1=0-10V
	AV5:Temperature	
	AV6:Reality humidity	
	AV7:absolute humidity	
	AV8:Dew point	
	AV9:Enthalpy	
	AV10:Temperature Offset	Range:-4.0~4.0
	AV11:Humidity Offset	Range:-4.0~4.0
Device	device-identifier,device-name