

Description

Wall/Duct mount transducer 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 measurement requirements, and variety needs of different environments. Wall sensor / transmitter has current, voltage, 485 output signal to select, using 485 serial port output 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, stadium, etc.

Hights

- 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-W1



XDUCER-C



XDUCER-D



XDUCER-OUT-TH

Specifications

Typical Application		Wall/Duct Mount Transducer
Output Signal Type		4-20mA, 0-10V
Output Signal Drive		>500Ω for mA mode, 75mA, max output drive for voltage mode
Power		15-24V±10% AC or DC, 1 Watt typical
Operating Temp		-30-60℃, 0-95% non condensing
Plastic Housing		Flammability rating UL 94V0 file E194560
Range	Relative Humidity	0~100% non condensing
	CO2	0-40000PPM
Accuracy	Relative Humidity	5%RH (25℃, 20-80%, RH)
	CO2	±70PPM OR ±5% of reading
Response Time	Relative Humidity	<10s (25℃, in slow air)
	CO2	20s
Size		72.2mmX64mmX38.4mm

Part Number Scheme

XDUCER — D — TH

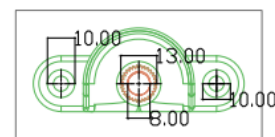
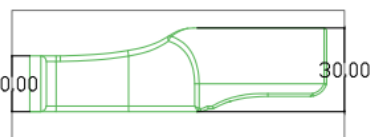
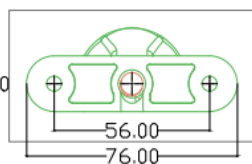
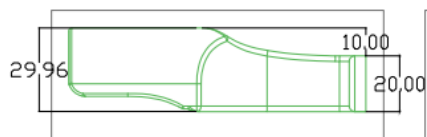
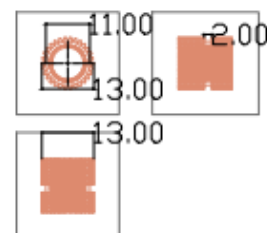
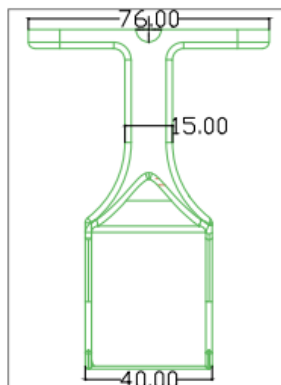
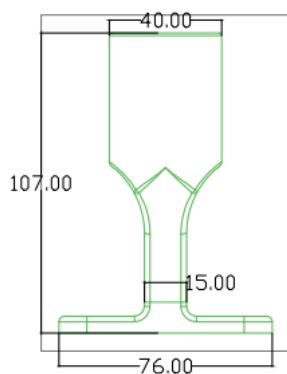
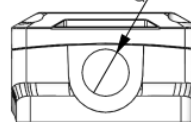
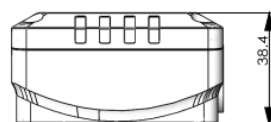
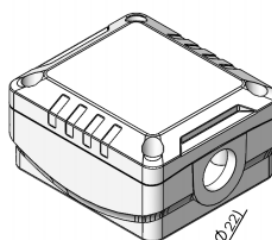
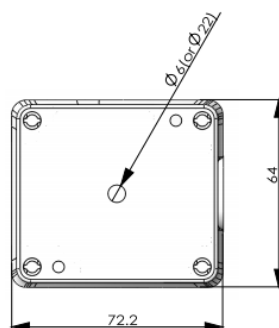
Code	Description
XDUCER	Transducer Sensor

Code	Option
TH	Temp & Hum

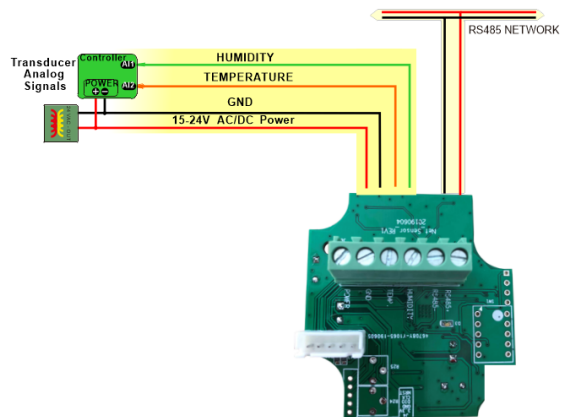
Code	Module
D	Duct Mount
W1	Wall Mount
OUT	Outdoor
C	2 Meter Cable

Dimensions

Unit:mm



Wiring Diagram



*12VDC works well for Modbus only systems. The 15VDC is required when you need the 10V analog outputs

Modbus Register List

Address	Register and Description
0	Serial number
4	firmware Version
6	Modbus address
7	Prodouct model
8	Hardware version
10	0...modbus, 1...bancet
15	baudrate 0:9600 1:19200 2:38400 3:57600 4:115200
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
34	SHT 35 temperature
35	SHT 35 humidity
41	Dew point value
42	Enthalpy 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,confirms-service,unconfirmed-service		
MSTP Object		
Analog-Value	AV0:baudrate select	
	AV1:Temperature range	0=0-100°C 1=-20.....80°C , 2=0...50°C 3=-50...50°C
	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	

Register Configuration Values:

Register value = 1 → 0-10V voltage output

Register value = 0 → 4-20mA current output

Modbus Poll - [Mbpoll1]

File Edit Connection Setup Functions Display View Window Help

Tx = 33: Err = 1: ID = 255: F = 03: SR = 1000ms

	00000	00010	00020	00030	00040	00050	00060	00070	00080	00090
0	160	0	3	0	0	0	0	0	0	2382
1	180	0	0	0	162	0	0	0	3492	431
2	3	0	0	4941	572	0	0	0	350	0
3	0	0	0	0	0	0	0	0	0	0
4	40	0	4026	0	133	0	0	0	3499	0
5	0	4	0	0	-400	0	0	0	350	0
6	254	0	0	0	0	0	0	0	0	0
7	90	0	0	0	0	0	0	0	0	0
8	6	0	0	0	0	0	0	320	2391	3
9	0	10	0	0	0	0	0	0	430	2

Write Single Register

Slave ID: 255

Address: 17

Value: 11

Result: N/A

☒ Close dialog on "Response ok"

Use Function:

☒ 06: Write single register

☐ 16: Write multiple registers

Modbus Poll - [Mbpoll1]

File Edit Connection Setup Functions Display View Window Help

05 06 15 16 22 23 101 ?

x = 112: Err = 1: ID = 255: F = 03: SR = 1000ms

	00000	00010	00020	00030	00040	00050	00060	00070	00080	00090
0	160	0	3	0	0	0	0	0	0	2382
1	180	0	0	0	158	0	0	0	3492	431
2	3	0	0	3492	563	0	0	0	350	0
3	0	0	0	0	0	0	0	0	0	0
4	40	0			129	0	0	0	3499	0
5	0	4			-400	0	0	0	350	0
6	254	0			0	0	0	0	0	0
7	90	0			0	0	0	0	0	0
8	6	0			0	0	0	320	2391	3
9	0	10			0	0	0	0	430	2

Write Single Register

Slave ID: 255 Send

Address: 17 Cancel

Value: 0

Result: N/A

☒ Close dialog on "Response ok"

Use Function:

☒ 06: Write single register

☐ 16: Write multiple registers

Scan via the T3000 software and adjust device parameters using the T3000 UI

T3000 Building Automation System Jul 15 2025 16

File Tools View Database Control Miscellaneous Help

Default_Building -> Default_Building

Default_Building

- Local View
 - Fandu133-TB
 - Fandu144-BB
 - LSW-ESP-106
 - T10-RAV2
 - T3-BB_140
 - T3-BB-ESP
 - T3-nano
 - T3-NB
 - T3-RMC-IP199
 - T3-TB155
 - T3-TB-23
 - T3-TB-9-W
 - Tranducer

27.7 Deg.C

Temperature Unit: ☒ Deg.C ☐ Deg.F

Temperature Range: 0.0 - 100.0 Deg.C

Output Mode: ☐ 4 - 20mA ☒ 0 - 10V

Temperature

	Min	Max
Voltage	0.0	10.0
Current	4.0	20.0
Temperature Deg.C	0.0	100.0

Output Current: 0.0 ma

Output Voltage: 2.7 V

☒ Default ☐ User-Defined

Range

☐ DewPoint (-20 - 80) 13.1

☒ Enthalpy (0-85) 52.0

☐ Absolute Humidity (0 - 50) 10.8 Kg/m3

☐ Real Humidity (0 - 100) 40.5 %

Calibration

Temperature offset: 0.0 Deg.C

Humidity offset: 0.0 %

Done

Humidity

	Min	Max
Voltage	0.0	10.0
Current	4.0	20.0
Humidity (%)	0.0	85.0

Output Current: 0.0 ma

Output Voltage: 6.1 V

☒ Default ☐ User-Defined

Graph showing Temperature (Deg.C) vs Humidity (V) with data points (27.7 Deg C, 2.7 V) and (52.0, 6.1 V).