

HTX32C Series (Room Sensor)

HVAC RH & Temperature Transmitter for Indoor Applications With Display, Communication

FEATURE S

- MEMS technology
- Embedded LCD Display
- Compact & Slim Size
- Self Calibration Function
- RS485 Communication
- Error Display

APPLICATION S

- Air Handling System
- Clean Room
- IDC Center & Computer Room
- Dehumidifier
- Humidifier
- Constant Temp.& Humidity Unit
- Building Automation
- Botanical Garden & Farm
- R&D Center / Laboratory
- Museum / Exhibition Hall
- Industry (Production / Storage)
- Semi-Conductor, LCD
- Electric Railway / Train
- Pharmacy / Food
- Factory Automation
- Rotary Machine
- Environmental Detection System
- Climate
- Road
- BTS (Base Transceiver Station)

HUMITRON® HTX32C series is an optimized line of product for measuring of temperature & humidity at indoor environment, such as clean room, computer room and museum.

It is convenient to communicate with upper monitoring & control system (PC-HMI, PLC) and possible to get the intuitive information through its own LCD display on each individual unit installed at different places.

Also, its simple structure and elegant design is harmonized with the surroundings.

RS485 Communication Function :

Applied for MODBUS RTU / ASCII protocol

Self LCD Display :

Built-in Changing Display Function LCD display

Settable 4...20mA Transmission Output Function :

Settable temperature range of output signal by user's convenience



SPECIFICATIONS

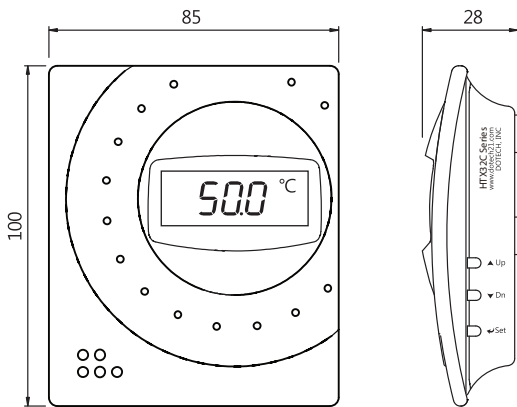
Item	Model	HTX32C
Humidity	Working Range	0...95%RH
	Accuracy at 25°C	±2.0%RH(30...70%RH), ±3.0%RH(10...90%RH)
	Repeatability	± 0.1%RH
	Response	Max. 10sec. : 1/e (63%) at 25°C, 1m/s air
	Output	4...20mA (0...100%RH)
Temperature	Working Range	0...50°C
	Accuracy at 25°C	± 0.3 °C
	Repeatability	± 0.1 °C
	Response	5...30 Sec., 1/e (63%)
	Output	4...20mA (0...50°C : Range Settable)
Passive Output		Type of T-Sensor, please see ordering guide
Self Diagnostic		Sensor Element Error Detection
Voltage Supply		9...32Vdc
Dimension (WxHxDmm)		85×100×25 (mm)
RS485 Communication		Modbus RTU/ASCII, 2400, 4800, 9600 BPS
Wiring Method		Terminal Block 14...22AWG
Storage Condition		-25...60°C, Non-condensation
Operating Condition		-5...55°C, 0...95%RH
Housing		PC-ABS, IP20
Weight		30 g



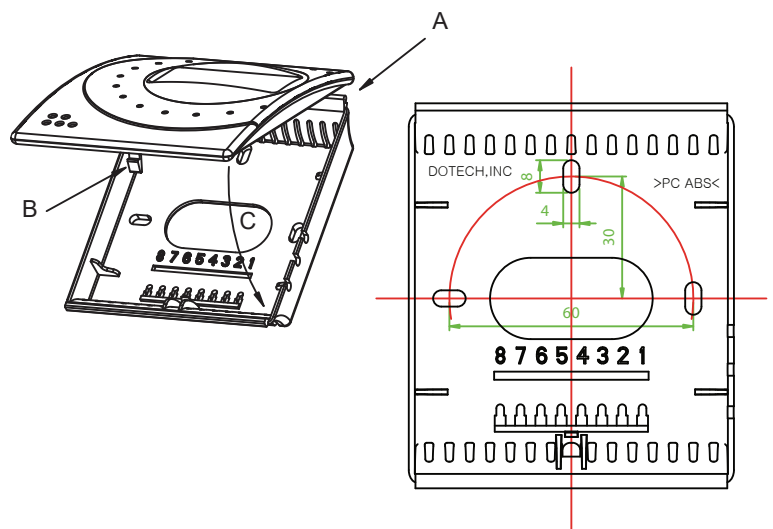
Ordering Guide

Basic	Series	Type	Description
HTX	32C		HUMITRON HTX 32C Series Transmitters
		00	Display Only
		11	Humidity(4...20mA), Temperature(4...20mA), RS485(Modbus RTU/ASCII)
		10	Humidity(4...20mA), Temperature(4...20mA)
		01	RS485(Modbus RTU/ASCII)
		10-PT100	Humidity(4...20mA), Temperature(4...20mA), PT100 Passive Connection
		10-PT1K	Humidity(4...20mA), Temperature(4...20mA), PT1000 Passive Connection
		10-NTC5K	Humidity(4...20mA), Temperature(4...20mA), NTC5K Passive Connection

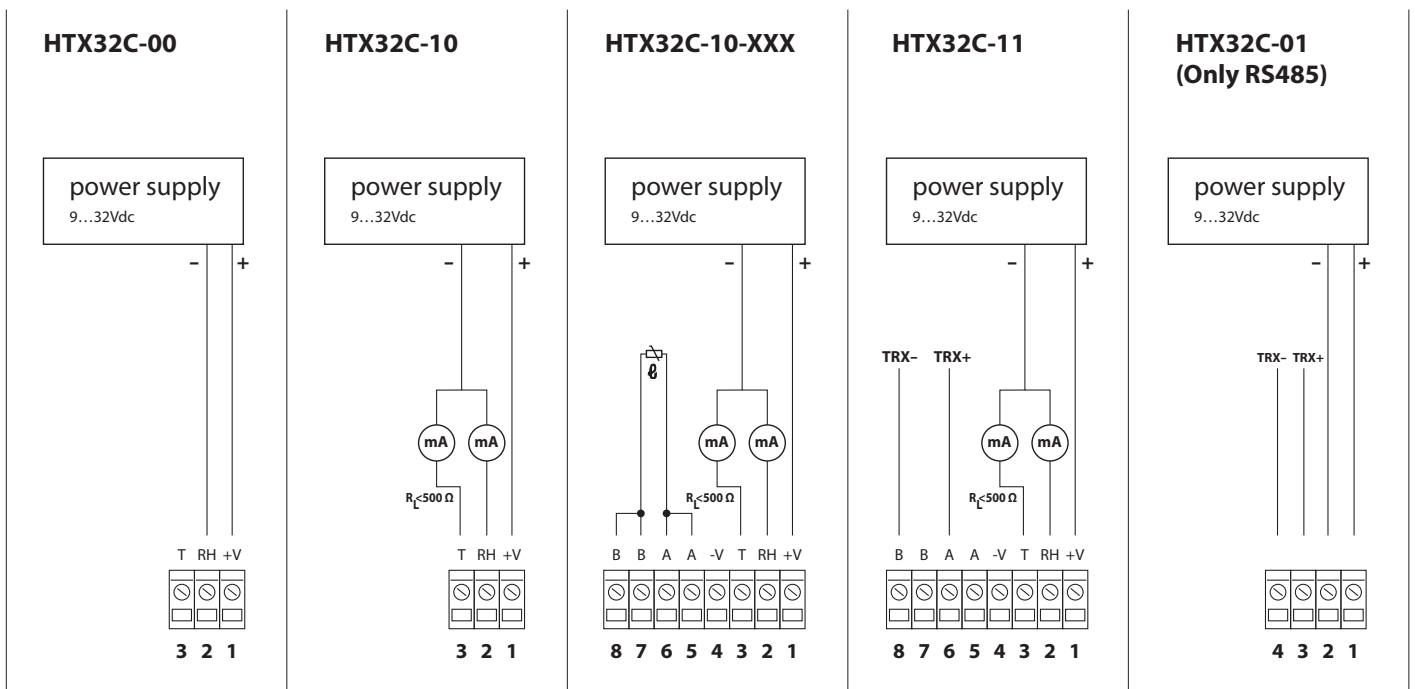
Housing / Mounting Dimension



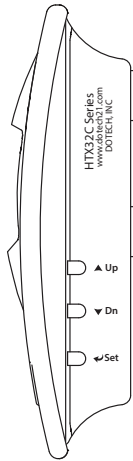
Mounting Hole



Connection Diagram



Factor Setting & View



Press SET button in bottom right for 2 sec. to change to setting mode.
 Press SET button for 2 sec. to return to display mode after verifying and modifying using SET button and UP/DN button.

- roFS** : Humidity compensation value input, Range (-10.0 ~ +10.0) Default 0.0
- toFS** : Temperature compensation value input, Range (-20.0 ~ +20.0) Default 0.0
- tSCH** : Input Max. value of temperature transmission output when 20mA Default 55.0
- tSCL** : Input Min. value of temperature transmission output when 4mA Default -5.0
- CRdr** : Input communication ID (1~64) Default 1
- CBPS** : Input communication speed (2400,4800,9600 BPS) Default 9600

How to convert between Celsius and Fahrenheit

Press UP button and SET button simultaneously to convert to Celsius temperature. And to convert to Fahrenheit temperature, press DN button and SET button at the same time.

RS485 communication output

Standard	EIA RS485
Max. Number of connections	32 (address setting is possible from 1 to 32)
Communication method	2-wire Half Duplex
Communication way	Asynchronous communication
Communication speed	2400, 4800, 9600 bps (Default 9600 bps)
Parity, Data, Stop bit	None, 8 Data, 1 Stop
Protocol Type	Modicon Modbus RTU/ASCII Mode

Address Mapping

Address	Variable Name	Unit	Format	Data Type	Real Data (HTX)	Inner Data (MMI)	R/W
4 0001	Humidity compensation value	%	Analog	INT16	-10.0~+10.0	×10	R
4 0005	Temperature compensation value	°C	Analog	INT16	-20.0~+20.0	×10	R
4 0006	Max. temp. transmission value(40mA)	°C	Analog	INT16	-40.0~120.0	×10	R
4 0007	Min. temp. transmission value(4mA)	°C	Analog	INT16	-40.0~120.0	×10	R
4 0021	Temp. side current(calculation value)	mA	Analog	INT16	4.00~20.00	×100	R
4 0020	Humid. side current(calculation value)	mA	Analog	INT16	4.00~20.00	×100	R
4 0021	Temp. side current(calculation value)	mA	Analog	INT16	4.00~20.00	×100	R
4 0022	Current humidity	%	Analog	INT16	0.0~100.0	×10	R
4 0023	Current temperature	°C	Analog	INT16	-40.0~120.0	×10	R
4 0024	Current dewpoint	°C	Analog	INT16	-20.0~60.0	×10	R
4 0025	Sensor state	-	Analog	INT16	Bit 0:0(Normal) 1(Abnormal)		R
3 0001	Current temperature	°C	Analog	INT16	-40.0~120.0	×10	R
3 0002	Current humidity	%	Analog	INT16	0.0~100.0	×10	R
3 0003	Current dewpoint	°C	Analog	INT16	-20.0~60.0	×10	R