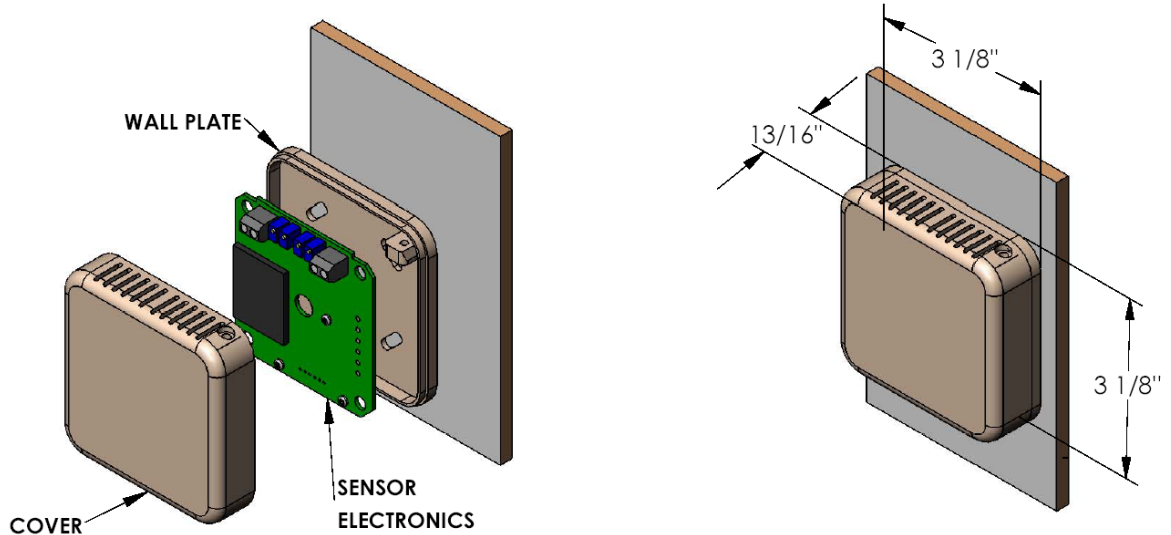


# HTX01-C01

HVAC Humidity - Temperature Transmitter  
Interior Wall mount RH transmitter



## Overview

The HTX series humidity / temperature transmitters are designed for use in HVAC energy management. The HTX01-C01 is an interior wall mount RH transmitter. The small off-white plastic enclosure is esthetic and takes up very little space. They are designed for mounting directly to walls or any flat surface.

Model

**Model**

**1**

**HTX01-C01**

-

Standard features:

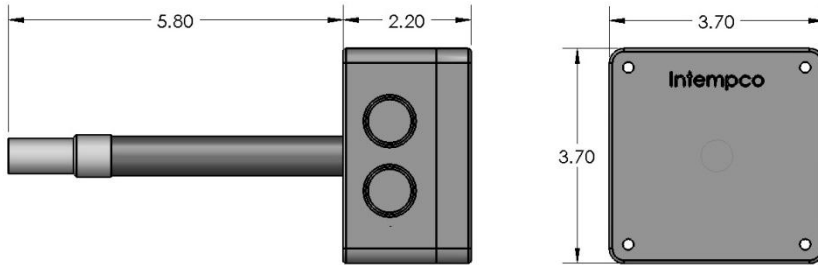
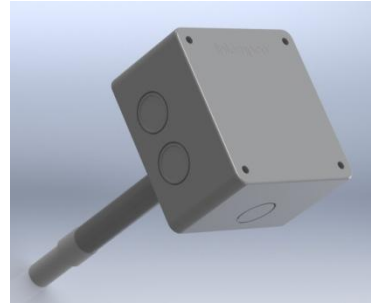
- Low Cost
- Rugged design using Solid State Sensors
- High Accuracy ( $\pm 3\%$  over  $5\%$  to  $90\%$  RH )
- 2 Wire, Loop powered Operation (4-20 mA Output)
- On-Board Zero And Span Adjustments
- Temperature Compensated Humidity Measurement
- Factory Calibrated
- Temperature outputs available

BOX1 CODE	Temperature Output
NO	No Temperature Output
P2	100 ohms @ 0°C - DIN EN 60751 Class B, 2-Wire
P3	100 ohms @ 0°C - DIN EN 60751 Class B, 3-Wire
T2	1000 ohms @ 0°C - DIN EN 60751 Class B, 2-Wire
T3	1000 ohms @ 0°C - DIN EN 60751 Class B, 3-Wire
05	4-20mA 0/50 deg C
55	4-20mA -50/50 deg C
48	4-20mA -40/80 deg C
YC	4-20mA specify range C
YF	4-20mA specify range F
SP	Custom, Specify

# HTX02-C01

HVAC Humidity - Temperature Transmitter

Interior/Exterior DUCT mount RH transmitter



## Overview

The HTX series humidity / temperature transmitters are designed for use in HVAC energy management.

The HTX02-C01 is a high performance low cost Interior/Exterior DUCT mount RH transmitter. The enclosure is Polycarbonate NEMA4X and the probe is PVC with an HDPE porous filter. They are designed for mounting directly into ventilation DUCTs.

<b>Model</b>	<b>1</b>
<b>HTX02-C01</b>	<b>--</b>

Standard features:

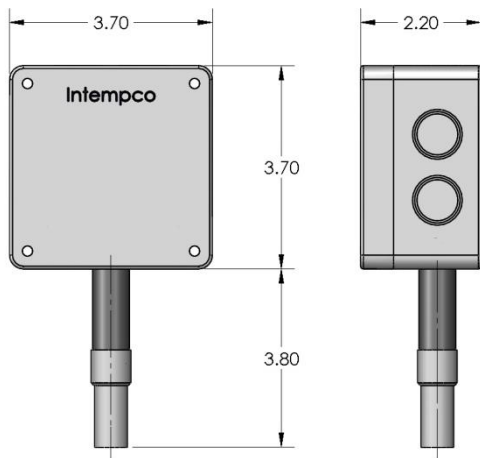
- Low Cost
- Rugged design using Solid State Sensors
- High Accuracy ( $\pm 3\%$  over  $5\%$  to  $90\%$  RH )
- 2 Wire, Loop powered Operation (4-20 mA Output)
- On-Board Zero And Span Adjustments
- Temperature Compensated Humidity Measurement
- Factory Calibrated
- Temperature outputs available

BOX1 CODE	Temperature Output
NO	No Temperature Output
P2	100 ohms @ 0°C - DIN EN 60751 Class B, 2-Wire
P3	100 ohms @ 0°C - DIN EN 60751 Class B, 3-Wire
T2	1000 ohms @ 0°C - DIN EN 60751 Class B, 2-Wire
T3	1000 ohms @ 0°C - DIN EN 60751 Class B, 3-Wire
05	4-20mA 0/50 deg C
55	4-20mA -50/50 deg C
48	4-20mA -40/80 deg C
YC	4-20mA specify range C
YF	4-20mA specify range F
SP	Custom, Specify



# HTX03-C01

HVAC Humidity - Temperature Transmitter  
 Interior/Exterior WALL mount RH transmitter



## Overview

The HTX series humidity / temperature transmitters are designed for use in HVAC energy management.

The HTX03-C01 is a high performance low cost Interior/Exterior RH transmitter. The enclosure is Polycarbonate NEMA4X and the probe is PVC with a HDPE porous filter. They are designed for mounting directly on walls or support brackets inside or outside. Outside mounting requires protection from the elements.

Model 1

HTX03-C01 -

Standard features:

BOX1 CODE	Temperature Output
NO	No Temperature Output
P2	100 ohms @ 0°C - DIN EN 60751 Class B, 2-Wire
P3	100 ohms @ 0°C - DIN EN 60751 Class B, 3-Wire
T2	1000 ohms @ 0°C - DIN EN 60751 Class B, 2-Wire
T3	1000 ohms @ 0°C - DIN EN 60751 Class B, 3-Wire
05	4-20mA 0/50 deg C
55	4-20mA -50/50 deg C
48	4-20mA -40/80 deg C
YC	4-20mA specify range C
YF	4-20mA specify range F
SP	Custom, Specify

- Low Cost
- Rugged design using Solid State Sensors
- High Accuracy ( $\pm 3\%$  over 5% to 90% RH )
- 2 Wire, Loop powered Operation (4-20 mA Output)
- On-Board Zero And Span Adjustments
- Temperature Compensated Humidity Measurement
- Factory Calibrated
- Temperature outputs available



# Humidity Transmitter Series

## HTX01-C01 HTX02-C01 HTX03-C01

### Technical Specifications

**Nominal conditions:** Temperature = 25 °C, RH = 50%, Supply = 24VDC

#### RH Section:

**Sensing Element :** Thermoset polymer thin film capacitive RH sensor

**Calibrated Range :** 5% to 95% RH

**System Accuracy :** ±3%, (5% to 95% RH range )

**Supply Voltage :** 12-30 VDC, polarity protected

**Power Requirement :** 40mA max @ 24 VDC

**Supply Voltage Effect :** ±0.002 RH/volt ( negligible ) from 12-30 VDC

**Output :** 4–20mA, loop powered 2-wire, 0 to 100% RH

**Repeatability :** ±0.5% RH

**Linearity :** ±1% RH

**Hysteresis :** ±1% RH of operating humidity span

**Sensor Stability :** ±1% RH typical at 50% RH in 1 year

**Temperature Effect :** (±0.0021%RH / °C)x %RH (from -20°C to +60°C)

Effect @ 0% RH = < 0.005%RH/ °C (Negligible)

Effect @ 100 %RH = 0.21%RH/ °C

**Temperature Compensation:** -20°C to +60°C ( -4°F to +140°F )

**Operating Environment :** -40°C to +85°C ( -40°F to +185°F ) non-condensing (0% to 95% RH)

**Storage Environment :** - 40°C to +85°C ( -40°F to +185°F ) non-condensing

**Zero and Span Adjust. :** Rotary Potentiometers

**Maximum Loop Resistance :**  $R_{max.} = [V_{supply} - 12V_{dc}] / 20mA$

**Polarity Protection :** Diode reverse polarity protected

**Sensor Break Indication :** Downscale (<3.5 mA)

#### Optional Temperature Section:

##### RTD output:

**Technology:** Platinum temperature sensor in thin-film technology

**Type:** See model number for RTD description

##### 4-20mA Output:

**Output:** 4-20mA loop powered, linear to temperature

**Linearization :** ±0.01% FS

**Power Supply :** 12-30Vdc, polarity protected

**Supply Effect :** 0.02%/V

**Zero Drift :** ±0.02% FS/ oC

**Span Drift :** ±0.02% FS/ oC

**Long Term Drift :** ±0.05% FS/ year

**Accuracy :** 0.1% FS ( includes effects of linearity, hysteresis and repeatability )

**Span / Zero Adjustment :** 20 turn potentiometer, ±10% for zero and span

**Maximum Loop Resistance :**  $R_{max.} = [V_{supply} - 12V_{dc}] / 20mA$

**Open Circuit Detection :** Over-scale limit : 27.0 mA, Under-scale limit : 2.2mA

**Warmup :** 30 seconds

**Ambient Operating Temperature :** -40°C.....85°C ( -40 °F....185°F)

**Storage Temperature :** -40°C.....85°C ( -40 °F....185°F)

**Humidity Transmitter Series**  
**HTX01-C01 HTX02-C01 HTX03-C01**  
**Mechanical Specifications**

<b>Description</b>	<b>HTX01-C01</b>	<b>HTX02-C01</b>	<b>HTX03-C01</b>
Mounting	Interior Wall mount	Interior/Exterior DUCT mount	Interior/Exterior WALL mount
Enclosure	2 part , ABS wall mount base and removable cover. Off-white color Flame retardant plastic material UL rated 94-V0	2 part , Polystyrene wall mount box with removable cover. Light Gray -40°C to 70°C (-40°F to 158°F)	2 part , Polystyrene wall mount box with removable cover. Light Gray -40°C to 70°C (-40°F to 158°F)
Sensor Protection	Housing cover with air passage access slots	HDPE dust cover 60 micron	HDPE dust cover 60 micron
Sensor Probe Housing	N/A	PVC	PVC
Enviromental Protection	IP20	Electronic IP64, sensor with dust filter IP50	Electronic IP64, sensor with dust filter IP50
Electrical Connections	Via on board terminal blocks, accepts 18-24 awg size	Via on board terminal blocks, accepts 18-24 awg size	Via on board terminal blocks, accepts 18-24 awg size
Connection Access	Access from behind the base plate	Round Knockout Sidewalls PG 16 [23.0mm (0.91 in)] and PG 11 [19.0mm (0.75 in)]	Round Knockout Sidewalls PG 16 [23.0mm (0.91 in)] and PG 11 [19.0mm (0.75 in)]



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