

Humidity and Temperature Sensor Combo **I-RH-TEMP**



I-RH TT

RH with Temperature Transmitter Output

The I-RH Series relative humidity transmitters (with temperature transmitter output) utilize a capacitive sensing element to deliver a proportional analog output. This series features on-board DIP switches which allow the user to select the desired output signal. In addition, field calibration can be performed by using the on-board increment and decrement DIP switches. Duct and Outside Air configurations feature conformally coated RH circuit boards for moisture resistance. These enhancements provide increased flexibility and outstanding long-term performance.

Specifications

RH Supply Voltage (4 to 20 mA)	(250 Ohm Load): 15 to 40 VDC/18 to 28 VAC
RH Supply Voltage (4 to 20 mA)	(500 Ohm Load): 18 to 40 VDC/18 to 28 VAC
RH Supply Voltage (0-5 VDC)	12 to 40 VDC/18 to 28 VAC (4K Load minimum)
RH Supply Voltage (0-10 VDC)	18 to 40 VDC/18 to 28 VAC (4K Load minimum)
Supply Current	Voltage Output: 8 mA maximum Current Output: 24 mA maximum
RH Measurement Range	0-100%
RH Output	2-wire: 4 to 20 mA (standard) 3-wire: 0-5, 0-10 VDC or 4 to 20 mA
Accuracy @ 77°F (25°C)	+/- 1% over 20% span (between 20 to 90%) +/- 2%, 3%, or 5% from 10 to 95%
Long Term Stability	Less than 2% drift/5 years
Min/Max Calibrated Temp Range	50°F (28°C) minimum/1000°F (550°C) maximum (See Operating Environment Below)
Repeatability	0.5% RH
Sensitivity	0.1% RH
Operating Environment: Duct/Outside	0 to 90% RH (non-condensing) -40 to 140°F (-40 to 60°C)
Operating Environment: Room	0 to 90% RH (non-condensing) 32 to 122°F (0 to 50°C)
RH Sensor Type	Capacitive
Product Dimensions (Duct)	Enclosure: (H) 3.70" (W) 3.70" (D) 2.22" Probe: (L) 7.30"
Product Dimensions (Outside Air/NEMA 4X)	(H) 3.70" (W) 3.70" (D) 2.22" Probe: (L) 4.80"
Product Dimensions (Room 2)	(H) 4.50" (W) 2.75" (D) 1.12"
Product Dimensions (Room)	(H) 4.51" (W) 2.75" (D) 2.90"

Ordering

Please select an Accuracy (A), Temperature Sensor (B), Configuration (C) & TT Model Output (D). Please note that RH model is defaulted to a 4 to 20 mA output. For the TT output of (1 to 5 VDC) or (2 to 10 VDC), the RH would have an output of either (0 to 5 VDC) or (0 to 10 VDC), respectively. You can change your RH output in the field between 4 to 20 mA, 0 to 5 VDC, or 0 to 10 VDC, as well. Please indicate the required temperature calibration span at the time of your order.

A Accuracy

- ☐ I-RH1 (+/-1%) (Specify a 20% Range)
☐ I-RH2 (+/-2%)
☐ I-RH3 (+/-3%)
☐ I-RH5 (+/-5%)

B Temperature Sensor

- ☐ TT1K
☐ TT100
☐ TTM1K
☐ TTM100

C Configuration

- ☐ D-4X (Duct/NEMA 4X)
☐ O-4X (Outside Air/NEMA 4X)
☐ R2 (Room)
☐ R (Room)

D TT Model Output

- ☐ 4 (4 to 20 mA) (Specify Span)
☐ 1 (1-5 VDC) (Specify Span)
☐ 2 (2-10 VDC) (Specify Span)

Build your part number

After completing (A), (B), (C) & (D) from the above table, fill in the Part Number Table below. An example part number is offered.

A

B

C

D

EXAMPLE: I-RH3 - TT1K - D -1 (Temp span: 20 to 120)



The NEMA 4X enclosure has a UL94-V2 flammability rating.