

Humidity Transmitter **I-RH**



Relative Humidity

Humidity Transmitter

The I-RH Series relative humidity transmitters 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 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 (Factory 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	
Repeatability	0.5% RH	
Sensitivity	0.1% RH	
Operating Environment (Duct)	Duct/Outside: 0 to 100 % RH -40 to 140°F (-40 to 60°C)	
Operating Environment (Room)	Room: 0 to 95% RH (non-condensing) 32 to 122°F (0 to 50°C)	
RH Sensor Type	Capacitive	
Product Dimensions (Duct/Euro)	Enclosure: (W) 3.60" (D) 2.25" Probe: (L) 7.15"	
Product Dimensions (Outside Air)	Cover: (H) 3.61" (W) 4.00" (D) 2.25" Stem: (H) 3.00" (W) 1.13"	
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"	
Product Dimensions (Stainless Plate)	Plate: (H) 4.51" (W) 2.76" (D) 0.19"	Filter: (L) 1.06"

Ordering

Select one Series (A). If A/RH1 is selected, you must specify a 20% range. Choose one Configuration (B) and one Output (C).

A Accuracy

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

B Configuration

- ☐ **D** (Duct/Euro)
☐ **O** (Outside Air/Euro)
☐ **SP** (Stainless Plate)
☐ **R2** (Room, New Version)
☐ **R** (Room, Previous Version)

C Output

- ☐ **----** (4 to 20 mA) (Field selectable output to 0-5 VDC or 0-10 VDC)
☐ **5** (0 to 5 VDC) (Field selectable output to 0-10 VDC or 4 to 20 mA)
☐ **10** (0 to 10 VDC) (Field selectable output to 4 to 20 mA or 0-5 VDC)

Build your part number

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

A

B

C

EXAMPLE: I-RH3 - D - 10



The Euro enclosure has a UL94-V0 flammability rating.