

4 to 20 mA

2 WIRES HUMIDITY TRANSMITTER

Model : TR-RH2W



Your purchase of this TWO WIRES HUMIDITY TRANSMITTER marks a step forward for you into the field of precision measurement. Although this HUMIDITY TRANSMITTER is a complex and delicate instrument, its durable structure will allow many years of use if proper operating techniques are developed. Please read the following instructions carefully and always keep this manual within easy reach.



OPERATION MANUAL

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1. FEATURES

- * Two wires 4 to 20 mA humidity transmitter, easy operation.
- * 2 wires, both for signal and power supply.
- * High precision capacitance type humidity sensor.
- * Protection for the reverse wires connecting.
- * Use the " two wires, 4 to 20 mA humidity transmitter " can cooperate the optional controller/Indicator or the datalogger system.

2. SPECIFICATIONS

2-1 General Specification

Humidity measurement range	10% to 95% RH
Signal output	4 - 20 mA 10 %RH = 5.6 mA 50 %RH = 12 mA 95 %RH = 19.2 mA
Humidity sensor	High precision capacitance type humidity sensor.
Power Supply	DC 9V to 30 V <i>* Protected against reverse polarity</i>
Wire numbers	2 wires, both for signal and power supply.
Accuracy	$\geq 70 \%R.H. :$
	$\pm (3\% \text{ reading} + 1\% R.H.)$
	$<70 \%R.H. :$ $\pm 3\%R.H.$

Load impedance requirement	Load up to 500 ohms.
Operating Temperature	0 °C to 50 °C (32 °F to 122 °F).
Operating Humidity	Less than 95% RH.
Size	200 x 23 x 19 mm (7.9 x 0.9 x 0.7 inch).
Weight	75 g (0.16 LB).
Cable length	Approx. 1.2 m.
Wire Connection	2 wires : Red..... Power + and signal Black..... Power -
Standard accessories	Instruction manual..... 1 PC Probe holder..... 1 PC Screws (for fixing the probe holder)..... 2 PCs

2-2 Electrical Specification (23±5 °C)

Accuracy	≥ 70 %R.H. :
	± (3% reading + 1% R.H.)
	<70 %R.H. :
	± 3%R.H.

2-3 Checklist of input (% RH) and the output (4 - 20 mA)

<i>Input (%RH)</i>	<i>Output (mA)</i>
0% RH	4 mA DC
10% RH	5.6 mA DC
33% RH	9.28 mA DC
75% RH	16 mA DC
95% RH	19.2 mA DC
100% RH	20 mA DC

3. FRONT PANEL DESCRIPTION

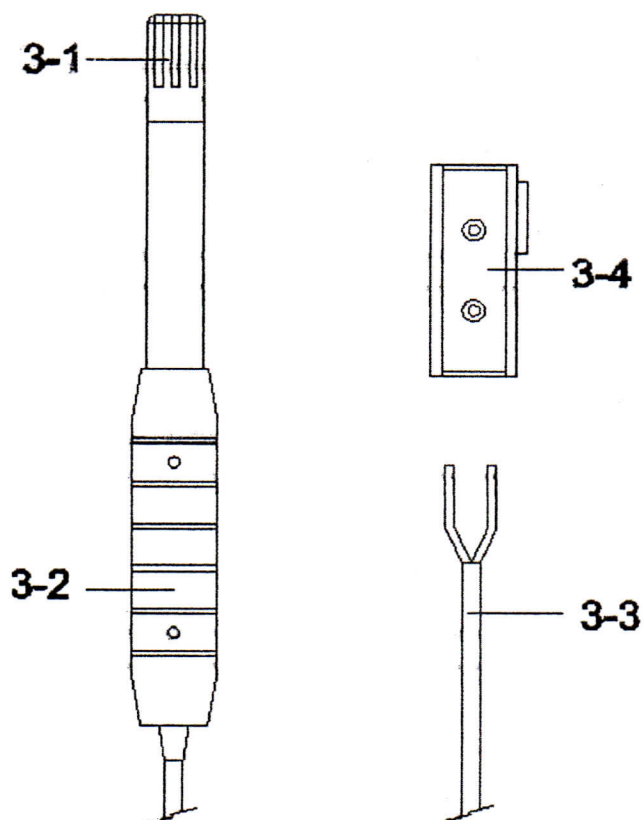


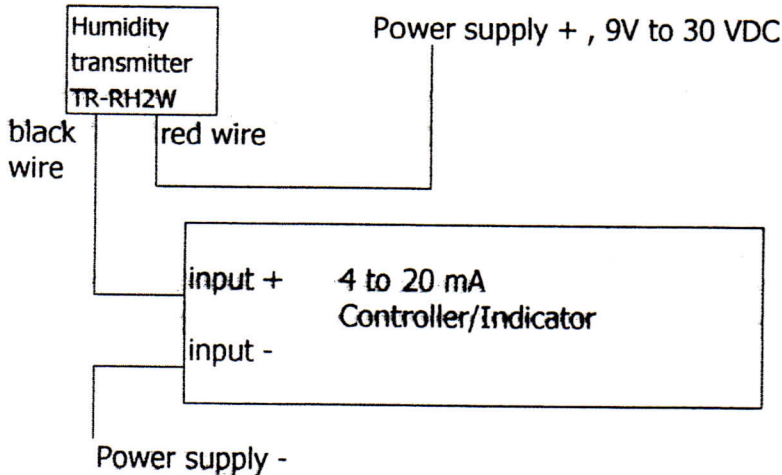
Fig. 1

- 3-1 Humidity sensing head
- 3-2 Probe main body
- 3-3 Signal and power supply wires
- 3-4 Probe holder

4. OPERATION PROCEDURES

- 1) Using the two screws to fix the " Probe holder " (3-4, Fig. 1) on the wall
Mount the " Probe main body " (3-2, Fig. 1) to the " Probe holder " (3-4, Fig. 1).
- 2) Use the two wires (3-3, Fig. 1) as signal and power supply wires.

The general wires installation will be as following :



**Calibration (zero/span adjustment)
consideration :**

- * Each transmitter had been fully calibrated before shipment, zero and span adjustment are not necessary before measurement.