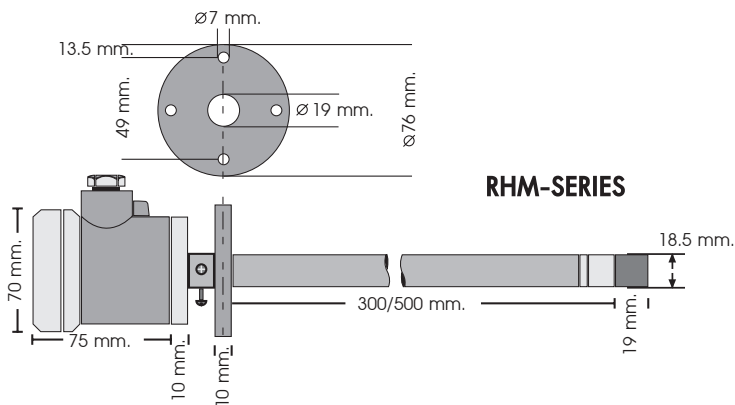




TECHNICAL SPECIFICATION

Model		RHM-005-00,01-H
Power Supply		16-30VDC
Power Consumption		<1 VA
Input	Humidity	0-100% RH
	Temperature	0-150 °C
	Accuracy Humidity	± 3% RH (20 -90% RH)
	Accuracy Temperature	± 1 °C (0 - 150 °C)
	Long-term Drift Humidity	< 0.3% RH/yr
	Long-term Drift Temperature	< 0.04 °C/yr
Output	DC current	4-20 mA Maximum 500 Ohm
Ambient Operation	Temperature	-10 °C to 150 °C
	Humidity	<85% RH Non-Condensing
Ambient Storage	Temperature	-20 °C to 150 °C
	Humidity	<85% RH Non-Condensing
Protection Degree		IP65
Installation		Screw
Material	Housing	Aluminium and Stanless
	Filter Head	Metal Sintered(150 °C)
Size		Core 300 x Ø19 mm.
Weight		770 g.

DIMENSION



DESCRIPTION

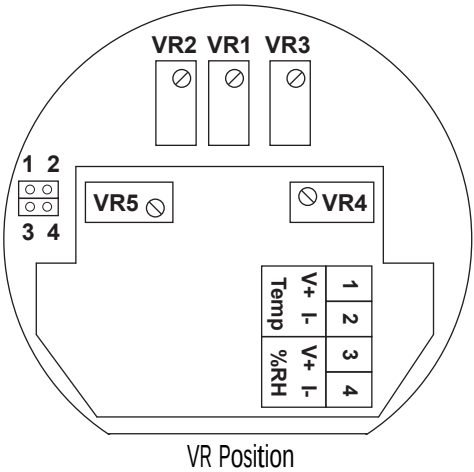
- Measure temperature and humidity in one device and convert temperature and humidity signal to be standard electrical signal (Output).
 - DC Current 4-20 mA 2 wires.
- Temperature range 0-150 °C.
- Humidity range 0-100% RH.
- Long probe with 2 sizes (Probe tube made from stainless).
 - Probe tube size 300 mm.
 - Probe tube size 500 mm.
- Suitable for temperature and humidity measuring inside oven 150 °C, Sterilizing tank, Dehumidification tank etc. Install to embed in oven box and leave head part outside oven which has electronics parts inside and can use with high temperature oven.
- Filter has Silicon Carbonate at the end side of probe to protect dust and flange for installation.

TURNING OUTPUT

RHM-005-XX-X-H will receive Calibrate Output and Sensor from factory but when it turns to calibrate cycle the device can tune signal by signal adjustment.

Output adjustment have to use calibration device that has the accuracy more than RHM-005 at least 3 times to adjust device precisely

- The calibration of the relative humidity sensor involves adjusting the signal amplification before converting it to a 4-20 mA output. Calibration should not be performed without proper instruments and a controlled environment.
 - Set the chamber humidity control to 30%RH and wait until the controller reading stabilizes. Measure the signal at the test points using a DC voltmeter, with the positive terminal connected to point 2 and the negative terminal to point 3. Adjust the signal using VR1 until the voltage reaches 0.890 V.
 - After completing step 1.1, the output current (mA) must be recalibrating again before the sensor can be used.



Measure temperature and humidity in one device and convert temperature and humidity

2. Output %RH Signal Calibration

2.1 Set the chamber humidity control to 30%RH and wait until the controller reading stabilizes. Then adjust VR2 (Zero) to obtain an output of 8.80 mA.

2.2 Set the chamber humidity control to 80%RH and wait until the controller reading stabilizes. Then adjust VR5 (Span) to obtain an output of 16.80 mA.

2.3 Repeat steps 2.1 and 2.2 until the desired accuracy is achieved.

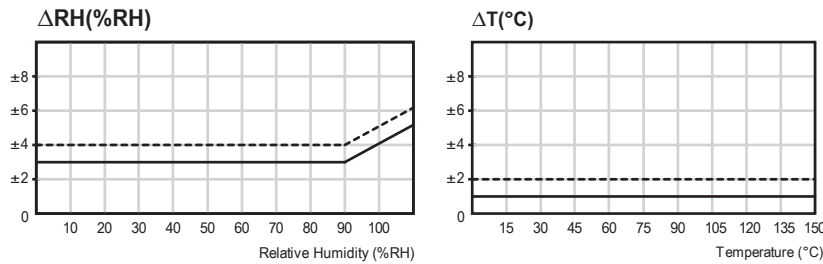
3. Adjustment of the Output Temperature Signal

3.1. Set the chamber's control temperature to 0°C. and wait until the controller's measured temperature stabilizes, then proceed with the adjustment.

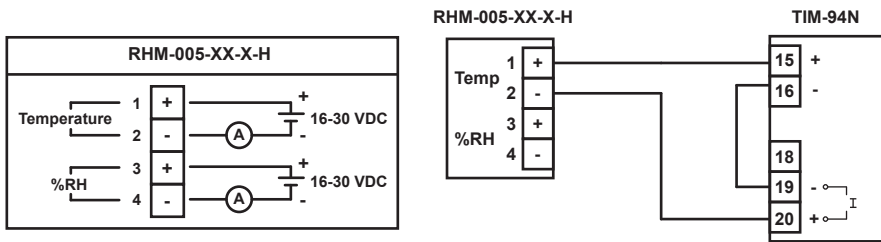
3.2. Set the chamber's control temperature to 150°C. Wait until the controller's measured temperature stabilizes, then adjust VR4 (Span) to obtain an output of 20.00 mA.

3.3. Repeat steps 3.1 and 3.2 until the desired accuracy is achieved.

Accuracy Graph



WIRING DIAGRAM



ORDERING CODE

RHM - [] - [] - [] - H		
Output		Signal Input
005	DC Current : 4 - 20 mA	00 Humidity & Temperature
		01 Humidity
		Probe Length
		3 300 mm.
		5 500 mm.

*** Remark: Probe Length can produce 300mm. and 500mm. only.



Pm

PRIMUS

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