

HSN-100 Relative Humidity Sensor

Overview

The HSN-100 is a sensor designed for measuring the relative humidity (RH) in environmental chambers, plant growth chambers, model ecosystems, or the atmosphere. The HSN-100 can provide measurements of relative humidity from 0 to 100%, over a temperature range from -30°C to 60°C. This sensor is fast responding, unaffected by immersion in water, and easily cleaned with deionized water.

The HSN-100 can operate in many types of atmospheres that contain: salts from ocean spray; pollutants from combustion, like sulfur dioxide, hydrogen sulfide, ozone, nitric oxide, carbon monoxide, and carbon dioxide; chemicals from manufacturing, like soap, softener, sulfuric acid, hydrochloric acid, nitric acid, toluene, smoke, and insecticides; and more.

Specifications:

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Humidity Range	10 - 95%

Operating Instructions:

1. Plug the IX-MYDAQ into the NI mydaq. Plug the mini din 7 end of the HSN-100 into CH 1 or CH 2 of the IX-MYDAQ.
2. Arrange to measure the desired humidity.
3. Plug in the USB cable and set the input range of the channel being used to +/-5V.
4. Record the output of the humidity sensor.
5. To correlate the output voltage to a humidity percentage see the table below.



Table 1 Humidity to voltage translation

RH (%)	Vout(mV)	RH (%)	Vout(mV)
10	1325	55	2480
15	1465	60	2605
20	1600	65	2730
25	1735	70	2860
30	1860	75	2990
35	1990	80	3125
40	2110	85	3260
45	2235	90	3405
50	2360	95	3555