Relative Humidity Sensor · RHS-1

The Relative Humidity Sensor (RHS-1) provides an analog output which is proportional to the ambient relative humidity. The RHS-1 is designed for applications where reliable and accurate relative humidity measurements are needed.

Installation Procedure:

There are three connection wires on the RHS-1:

White - GND
Blue - +5Vdc
Yellow - Signal output

To use the humidity sensor with the Davicom units, follow the steps below. Note: You may need to extend the connection wiring of the RHS-1 depending on where it is physically installed.

1 Connect the white wire to any GND terminal on the Davicom unit.

2 Connect the blue wire to any available 5Vdc terminal on the Davicom unit.

3 Connect the Yellow wire to the desired analog input (+). On a DV-208/216/Mini connect the analog input (-) to AGND.

4 For readings in % RH, enter the A, B, C coefficients given below:

- DV-208/216/Mini: A=0; B=39; C=-38; Analog input set at 10V range.
- DV-Micro: A=0; B=39; C=-42; Analog input set at 5V range.

Temperature Compensation Factor:

Unless working at extreme temperatures you do not need to take this into account.

$RH_{compensated} = RH_{actual\ at\ T} + (T-23)*(0.05)$

where T is Temperature (°C) and RH is Relative Humidity (%).

MECHANICAL SPECIFICATIONS	
Dimensions:	0.45 x 0.45 x 2.34 in. (W x D x H) 11.4 x 11.4 x 59.5 mm (200 mm pigtail)
Weight:	<0.03lbs (13.6g)

ELECTRICAL SPECIFICATIONS	
Measurement range:	10%-95% RH
Supply Voltage:	5V DC (not protected against reverse polarity)
Output voltage:	1.325 – 3.555 VDC
Accuracy :	±3% typical, ±5% max
Operating Temp. Range	-30°C to 60°C