

# SPECIFICATIONS

## Relative Humidity Sensor

### FEATURES

- Inexpensive, highly accurate relative humidity measurement
- High level voltage output signal
- Long term stability



The RH-5X is a low-cost continuous measurement relative humidity sensor. It is compatible with NRG Systems Symphonie loggers equipped with any iPack and RH SCM.

The RH-5X uses a polymer resistor sensor which provides excellent linearity and sensitivity with fast response time and long-term stability.

Sensor mounts to tower underneath shelter box via a bracket and hose clamp. Kit includes 1.5 m (5 feet) of cable, mounting bracket and hose clamp.

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Description	Sensor type	polymer resistor humidity sensor
	Applications	<ul style="list-style-type: none"><li>• wind resource assessment</li><li>• meteorological studies</li><li>• environmental monitoring</li></ul>
	Sensor range	0 to 100% relative humidity
	Instrument compatibility	Symphonie with RH5 SCM & any Symphonie iPack
Output signal	Signal type	linear analog voltage
	Transfer function	% Relative Humidity = Voltage x 20
	Accuracy	+/- 3% RH from 20 to 80% RH [-20°C to 70°C (-4°F to 158°F)]
	Output signal range	0 to 5V for 0 to 100% RH, with a load resistance greater than 10 k ohms
Power requirements	Supply voltage	10 V to 36 V DC, 12 V at 2.6 mA typical
Installation	Mounting	Uses a sheet metal bracket with a hose clamp, to be mounted to the tower under the shelter box
	Tools required	8 mm (5/16 inch) nut driver or wrench



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110 Riggs Road • Hinesburg • VT 05461 USA • TEL (802) 482-2255 • FAX (802) 482-2272 • EMAIL sales@nrgsystems.com

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Environmental	Operating temperature range	-40°C to 70°C (-40°F to 158°F)
	Operating humidity range	0 to 100% relative humidity
Physical	Connections	wire leads, 3 conductor shielded cable: <ul style="list-style-type: none"><li>• Red: Power</li><li>• Black: Ground</li><li>• White: Signal out</li></ul>
	Cable length	1.5 m (5 feet)
	Weight	0.62 kg (1.36 pounds)
	Dimensions	110 mm (4.3 inches) x 109 mm (4.3 inches) x 50 mm (2.0 inches)
Materials	Cable	3 conductor 22 AWG, with overall foil shield and drain wire, chrome PVC jacket
	Enclosure	Polystyrene plastic box with galvanized steel mounting bracket

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