

# SPECIFICATIONS

## Relative Humidity Sensor

### FEATURES

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



The RH-5 is a low-cost continuous measurement relative humidity sensor. It is compatible with 9300 loggers equipped with rechargeable batteries and PV panels as well as Symphonie loggers equipped with any iPack and RH SCM.

The RH-5 uses a polymer resistor sensor which provides excellent linearity and sensitivity with fast response and long-term stability. Mounts to underside of shelter box. Includes 1.5 m (5 feet) cable.

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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 95% relative humidity   |
|                    | Instrument compatibility | <ul style="list-style-type: none"><li>• Symphonie w/ RH SCM + any iPack</li><li>• 9300 w/ TPRH SIM card + PV/battery</li></ul>   |
| Output signal      | Signal type              | linear analog voltage  |
|                    | Transfer function        | (Full Span) % Relative Humidity = Voltage x 20   |
|                    | Accuracy                 | +/- 5% RH from 5 to 95% RH [at 25 °C (77 °F)]  |
|                    | Output signal range      | <ul style="list-style-type: none"><li>• Full Span: 0 to 5V for 0 to 100% RH, with a load resistance greater than 10 k ohms</li><li>• Half span output: exactly half output</li></ul> |
| Power requirements | Supply voltage           | 10 V to 36 V DC, 12 V at 1.2 mA typical  |
| Installation       | Mounting                 | bolts to bottom of logger shelter box with supplied hardware   |



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|               |                             |   |
|---------------|-----------------------------|---|
|               | Tools required              | <ul style="list-style-type: none"> <li>• phillips head screwdriver</li> <li>• adjustable wrench</li> </ul>  |
| Environmental | Operating temperature range | -40 °C to 54 °C (-40 °F to 130 °F)  |
|               | Operating humidity range    | 0 to 95% relative humidity  |
| Physical      | Connections                 | wire leads, 4 conductor shielded cable: <ul style="list-style-type: none"> <li>• Red: Power</li> <li>• Black:Ground</li> <li>• Green: Signal out</li> <li>• White:half-span signal</li> </ul> |
|               | Cable length                | 1.5 m (5 feet)  |
|               | Weight                      | 0.68 kg (1.5 pounds)  |
|               | Dimensions                  | 115 mm (4.5 inches) x 102 mm (4 inches) x 80 mm (3.1 inches)  |
| Materials     | Cable                       | 4 conductor 22 AWG, with overall foil shield and drain wire, chrome PVC jacket  |
|               | Enclosure                   | Cast aluminum and stainless steel   |

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