



**METER**

## **ATMOS-14 TEMPERATURE-RELATIVE HUMIDITY SENSOR**



### **With ATMOS-14, all your bases are covered**

We engineered ATMOS-14 temperature and humidity sensor to be four sensors in one-air temperature, relative humidity, barometric pressure, and vapor pressure.

### **A temperature and humidity sensor you can plug in, and walk away**

Despite its minimalist design, ATMOS-14 provides maximum value. While other sensors require wiring and programming, ATMOS-14 simply plugs into the ZL6 (It's also compatible with third-party data loggers). There's no having to figure out complicated instructions. Just mount the sensor on your data logger mast, plug it in, and walk away.

### **Measures a lot. Requires very little effort.**

ATMOS-14 temperature and humidity sensor is low-maintenance. It gives accurate vapor pressure and RH without a lot of cleaning. Plus it's weatherproof, meaning it will last a long time in the field. Another helpful feature is the compact shape that fits into tight spaces, leaving room on a mast for other sensors.

### **For everything it measures, there's not much to it**

With ATMOS-14, all your basic microclimate measurements are covered using a small, simple integrated sensor. Whether you're using it to look at plant emergence, leaf area index, or fractional interception, there isn't an easier way to benchmark your data.

### **Features**

- Four measurements in one sensor
- Plug and play capability
- Collect data remotely when used with the ZL6 data logger
- Compact
- Teflon screen protects the sensor from weather
- Fast response
- Integrated temperature for accuracy



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## ATMOS-14 TEMPERATURE-RELATIVE HUMIDITY SENSOR

### METER

#### Specifications

##### MEASUREMENT SPECIFICATIONS

<b>Temperature</b>	<b>Range:</b> -40 to 80°C <b>Resolution:</b> 0.1°C <b>Accuracy:</b> ±0.2°C <b>Equilibration time (<math>\tau</math>, 63%):</b> <165 s (response time in 1 m/s air stream) <b>Long-term drift:</b> <0.03 °C year, typical
<b>Relative Humidity (RH)</b>	<b>Equilibration time (<math>\tau</math>, 63%):</b> <25 s (response time in 1 m/s air stream) <b>Hysteresis:</b> ±0.8 % RH, typical <b>Long-term drift:</b> ±0.25 % RH/year, typical <b>Range:</b> 0-100% RH (0.00-1.00) <b>Resolution:</b> 0.1% RH <b>Accuracy:</b> Varies across a range of RH.
<b>Vapor Pressure</b>	<b>Range:</b> 0-47 kPa <b>Resolution:</b> 0.01 kPa <b>Accuracy:</b> Varies across a range of temperature and RH.
<b>Barometric Pressure</b>	<b>Equilibration time (<math>\tau</math>, 63%):</b> <10 ms <b>Long-term drift:</b> <0.1 kPa/year, typical <b>Range:</b> 1-120 kPa <b>Resolution:</b> 0.01 kPa <b>Accuracy:</b> ±0.05 kPa at 25°C

##### COMMUNICATION SPECIFICATIONS

<b>Output</b>	DDI serial or SDI-12 communication
<b>Data logger compatibility</b>	Any data acquisition system capable of 3.6-15.0 VDC power and serial or SDI-12 communication.

##### PHYSICAL SPECIFICATIONS

<b>Dimensions</b>	<b>Diameter:</b> 2 cm <b>Height:</b> 5.4 cm
<b>Cable length</b>	5 m (standard) 75 m (maximum custom cable length)
<b>Connector types</b>	3.5-mm stereo plug connector or stripped and tinned wires
<b>Operating temperature range</b>	<b>Minimum:</b> -40°C <b>Maximum:</b> 80°C

##### ELECTRICAL AND TIMING CHARACTERISTICS

<b>Supply voltage (VCC to GND)</b>	<b>Minimum:</b> 3.6 VDC continuous <b>Maximum:</b> 15 VDC continuous
<b>Measurement duration</b>	<b>Typical:</b> 50 ms
<b>COMPLIANCE (CE Mark)</b>	Manufactured under ISO 9001:2015 , 2004/108/EC and 2011/65/EU EN61326-1:2013 EN50581:2012