



Air Temperature and Relative Humidity

Typically capacitive RH chips and PRTs

Rugged, Reliable, and Ready for any Application



Air temperature and relative humidity probes typically consist of two separate sensors packaged in the same housing. Often relative humidity is measured with a capacitive RH chip, while air temperature is measured by a PRT. The HMP155A, HC253, or CS215 is recommended

in humid areas or applications in which accurate measurements of RH (especially above the 90% RH level) are important. Solar radiation shields are required for most applications, where the probes are exposed to sunlight.

MAJOR SPECIFICATIONS

	Sensor	Measurement Range	Accuracy	Field Replacable Chip or Recalibrate
CS215 SDI-12 Output Competitively priced, general purpose temperature and RH sensor	 Sensirion SHT75	<u>Relative Humidity</u> 0 to 100% RH <u>Temperature</u> -40° to +70°C	<u>Relative Humidity (at 25°C)</u> ±2% to ±4%, depending on RH <u>Temperature</u> ±0.3°C at 25°C; ±0.4°C (+5° to +40°C); ±0.9°C (-40° to +70°C)	field replaceable chip
HMP60 Accurate, Rugged Ideal for long-term, unattended applications	 <u>Relative Humidity</u> Vaisala's INTERCAP capacitive chip <u>Temperature</u> PT100 RTD	<u>Relative Humidity</u> 0 to 100% RH <u>Temperature</u> -40° to +60°C	<u>Relative Humidity</u> ±3% to ±7% depending on RH and temperature <u>Temperature</u> ±0.6°C	field replaceable chip (RH only)
HC253 Accurate and Rugged Superior performance and reliability	 <u>Relative Humidity</u> ROTRONIC® Hygromer IN-1 <u>Temperature</u> PT100 RTD	<u>Relative Humidity</u> 0 to 100% RH <u>Temperature</u> -40° to +60°C	<u>Relative Humidity</u> ±0.8% RH with standard configuration settings <u>Temperature</u> ±0.1°C with standard configuration settings	recalibrate
HMP155A Accurate, Wide Temperature Range Higher end sensor where higher accuracy is required	 <u>Relative Humidity</u> HUMICAP® 180R <u>Temperature</u> PT100 RTD	<u>Relative Humidity</u> 0.8 to 100% RH <u>Temperature</u> -80° to +60°C	<u>Relative Humidity</u> ±1% to ±1.7% depending on RH <u>Temperature</u> ±(0.055 - 0.0057 x temperature)°C	recalibrate
083E Commonly used with the WMS100 for wind-farm power performance measurements	 <u>Relative Humidity</u> Thin film polymer capacitor <u>Temperature</u> Thermistor (precision multi-element)	<u>Relative Humidity</u> 0 to 100% RH <u>Temperature</u> -50° to +50°C	<u>Relative Humidity</u> ±2.0% <u>Temperature</u> ±0.10°C (0.18°C)	recalibrate

