

Demo - Comparison of humidity sensors  
 Worksheet by Rosie Howard  
 Edited by Tim Chui  
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	<b>Instrument</b>	<b>What is it made of?</b>	<b>Principle</b>	<b>What variable(s) does it measure?</b>	<b>Details</b>
1	<b>Psychrometer</b>	Two liquid-in-glass thermometers and a wick	Water evaporating from wet wick causes decrease in temperature  Drier environment causes greater cooling		Assmann psychrometer is aspirated  Must use distilled water
2	<b>Campbell Scientific HC-S3-XT</b>	Conductor-polymer sandwich		Relative humidity	Ideal for longterm, unattended applications  RH vs. capacitance is slightly nonlinear
3	<b>MetOne 083D</b>		Sorption of water causes change in <b>capacitance</b>	Relative humidity	RH vs. capacitance is slightly nonlinear
4	<b>Vaisala "humicap"</b>	Conductor-polymer sandwich	Sorption of water causes change in <b>capacitance</b>	Relative humidity	
5	<b>Kestrel humidity sensor</b>	Conductor-polymer sandwich	Sorption of water causes change in <b>capacitance</b>		Secondary thermistor to improve accuracy and response time
6	<b>Moisture-content meter (Feuchte-Gehaltsmesser)</b>		Sorption of water causes <b>size change</b>	Relative humidity	Also measures temperature outputting absolute humidity
7	<b>Carbon hygristor</b>	Carbon		Relative humidity	Used in old radiosondes