



RH Probes at 100%

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Skye relative humidity probes measure the full range 0-100% RH. The RH element is a high accuracy, stable, capacitive type, which contains a thin film of a polymer material which absorbs and de-sorbs water according to the humidity of its surroundings.

When the air is saturated with water, (humidity is 100% RH), the polymer in the capacitive RH sensor element also becomes saturated with water. As soon as the air humidity lowers, the sensor polymer also loses water and continues to measure RH without loss of accuracy or calibration drift.

However, it is possible that a datalogger which is recording measurements from a saturated sensor at 100% RH may show readings greater than 100%, e.g. 102% RH. This is simply the electronics of the RH sensor showing 'over-range' due to saturation. It is not a problem with the RH sensor and as the maximum possible humidity reading can be 100% RH, then all readings above this must be assumed to be 100% RH.

If RH readings are regularly 105% RH and above, it is likely that the RH probe requires recalibration. Recalibration is recommended at least annually. If the probe is in a constant high humidity environment, it should be first recalibrated 6 months after installation, and then at least annually thereafter.

Skye Instruments offer a recalibration service where the probe is returned to factory. Alternatively a RH recalibration kit is available for users to make their own calibration checks. The user kit requires a temperature controlled facility, e.g. an environmental chamber, or at minimum a temperature controlled water bath. Please enquire for details and prices.