

**我可以在高湿度和高温条件下使用你们的湿度计吗？**

问：我可以在温度为 37° C 且相对湿度 >90 % 的培养箱中使用您的湿度计吗？

回答：

可以的，但仍有许多细节需要注意。

AZ 的湿度计中使用的湿度传感器大部分是高精度和快速反应的电容式湿度传感器。测量范围在 90% 以上。

但是在温度为 37° C 且相对湿度 >90% 的培养箱中使用湿度计时，需要注意的最关键因素是冷凝。一旦水分子凝结在湿度传感器上，就会导致读数错误。

用户可以从以下计算网页查看冷凝温度（称为露点温度）：  
[https://www.rotronic.com/en/humidity\\_measurement-feuchtemessung-mesure\\_de\\_l\\_humidite/humidity-calculator-feuchterechner-mr](https://www.rotronic.com/en/humidity_measurement-feuchtemessung-mesure_de_l_humidite/humidity-calculator-feuchterechner-mr)

虽然温度设置为 37° C，湿度为 91%RH，露点接近 36° C。这意味着如果温度低于 36° C 时，水分子将开始在湿度传感器上凝结。应避免这种情况以使传感器保持良好状态。

**Q: May I use your hygrometer in an incubator with temperature of 37°C and relative humidity of >90 %?**

Answer:

The answer is YES but there are still many details must be taken take care of.

Most of the humidity sensor used in AZ's hygrometer is high accuracy and fast response capacitive humidity sensor. The measuring range is above 90%.

However, while using hygrometer in an incubator with temperature of 37°C and relative humidity of >90 %, the most critical factor to be taken care of is condensation. Once the water molecular is condensed on humidity sensor, it will cause wrong reading.

User may check the condensation temperature ( called Dew Point temperature) from below calculation webpage:

[https://www.rotronic.com/en/humidity\\_measurement-feuchtemessung-mesure\\_de\\_1\\_humidite/humidity-calculator-feuchterechner-mr](https://www.rotronic.com/en/humidity_measurement-feuchtemessung-mesure_de_1_humidite/humidity-calculator-feuchterechner-mr)

While the temp. is set as 37°C and humidity as 91%RH, the dew point is nearly 36°C. It means if the temp. is dropped a little bit lower than 36°C, the water molecular will start to condense on humidity sensor. This should be avoided to keep sensor in good shape.