

# Calibrado del sensor de O2 en función de la humedad y de la temperatura ambiente.



Por defecto, y sin tabla, en Gran Canaria, calibrar el analizador a 20,6

<http://www.amronintl.com/links/o2%20comp%20chart.htm>

## Oxygen Compensation Chart for High Moisture in the Atmosphere

Atmosphere Oxygen Percent in relation to temperature and Relative Humidity											
Temp F Temp C	32 0	40 4	50 10	60 16	70 21	80 27	90 32	100 38	110 43	120 49	
RELATIVE HUMIDITY	ATMOSPHERIC OXYGEN PERCENT										
10	20.9	20.9	20.9	20.9	20.8	20.8	20.8	20.8	20.8	20.7	20.7
20	20.9	20.9	20.8	20.8	20.8	20.8	20.7	20.7	20.6	20.5	20.4
30	20.9	20.8	20.8	20.8	20.7	20.7	20.6	20.5	20.4	20.2	20.2
40	20.8	20.8	20.8	20.7	20.7	20.6	20.5	20.4	20.2	19.9	19.9
50	20.8	20.8	20.8	20.7	20.6	20.5	20.4	20.2	20.0	19.7	19.7
60	20.8	20.8	20.7	20.6	20.6	20.5	20.3	20.1	19.8	19.5	19.5
70	20.8	20.8	20.7	20.6	20.5	20.4	20.2	19.9	19.6	19.2	19.2
80	20.8	20.8	20.7	20.6	20.5	20.3	20.1	19.8	19.5	19.0	19.0
90	20.8	20.7	20.7	20.6	20.4	20.3	20.0	19.7	19.3	18.7	18.7
100	20.8	20.7	20.6	20.5	20.4	20.2	19.9	19.5	19.1	18.5	18.5
H2O at 100% RH	0.6	0.8	1.2	1.8	2.5	3.4	4.7	6.5	8.6	11.5	

If the temperature and RH axis meet in this part of the chart, calibrate to the chart O2 level or with dry air to maintain 0.5% accuracy in NITROX.

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## Explanation of Chart

The accuracy of all oxygen analyzers are affected by high humidity levels if ambient air is used for calibration, **regardless of brand!**

This effect is not noticeable on many analyzers because their accuracy is only 1-2% of full scale. When combined with temperature compensation problems associated with remote sensors, this error could be as high as 3%.

Cool, dry air consists of 20.9% oxygen, 78.0% nitrogen, and 1.1% other gases to equal 100%. When the atmosphere heats up and humidity rises, (as found in tropical regions), the increased moisture in the air actually displaces the oxygen and nitrogen so they each represent a lower percentage of the 100% total. When using ambient air to calibrate your oxygen monitor, use the Oxygen Compensation Chart.