# Vidal Solutions Sensor Data Report

**AM103-Sensor_4**

1. CO2 Emissions Trend Analysis:

The provided sensor data indicates a single data point with a CO2 level of 23.5 ppm.  This value is significantly below the green threshold of 600 ppm, indicating excellent air quality in the living room during this instance.  No trend analysis can be performed with only one data point.

2. Temperature Trend Analysis:

The temperature reading from the provided sensor data shows a value of 23.5 degrees Celsius, which falls below the green threshold of 25.5 degrees Celsius.  Based on this single data point, the living room's temperature is within the acceptable range.  No significant trend analysis can be performed with only one data point.

3. Humidity Trend Analysis:

The humidity level in the living room was recorded at 78.5%, which is above the amber threshold of 65%. This value indicates moderate humidity levels in the space.  Based on this single data point, it appears that the living room may experience slightly elevated humidity levels compared to the ideal range.  However, further investigation and additional sensor readings would be necessary to determine if there is a consistent trend or an isolated event.

4. Conclusion:

Based on the available sensor data for the living room, we observe that CO2 emissions were well below the green threshold during the recorded instance.  The temperature was also within the acceptable range.  However, the humidity level was slightly above the amber threshold.  Further investigation and analysis of additional sensor readings would be required to determine if this is an isolated event or a consistent trend.

5. Recommendation:

To ensure optimal living room conditions, it is recommended that continuous monitoring of CO2 emissions, temperature, and humidity levels be performed.  By analyzing trends in the data over time, potential issues can be identified and addressed promptly to maintain a healthy and comfortable environment.  If the humidity levels consistently remain above

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the amber threshold, steps such as increasing ventilation or implementing dehumidification methods could be considered.

## AM307-Sensor_2

1. CO2 Emissions Trend Analysis:

The provided sensor data represents a single data point with a CO2 value of 23.8 ppm, which is well below the green threshold of 600ppm.  Based on this data point alone, we cannot perform a meaningful trend analysis for CO2 emissions in the living room.  However, it's important to note that maintaining low CO2 levels (below 600ppm) is essential for indoor air quality and overall health.

2. Temperature Trend Analysis:

The temperature value in the data point is 23.8 degrees Celsius, which falls under the green threshold of below 25.5 degrees Celsius.  There doesn't seem to be any concerning trend in this specific data point regarding temperature in the living room.  A consistent temperature within the green range indicates a comfortable indoor environment for occupants.

3. Humidity Trend Analysis:

The humidity value in the provided data point is 80.0%, which is above the amber threshold of 65% but still below the red threshold of 66%. This single data point doesn't allow us to make any definitive conclusions about the overall humidity trend in the living room.  However, it's important to note that high humidity levels can lead to potential health issues and property damage over time if not addressed promptly.

4. Conclusion:

Based on this single data point, the CO2 emissions, temperature, and humidity levels in the living room appear to be within acceptable ranges.  No immediate action is needed based on the provided data.  However, it's recommended to continue monitoring these sensors regularly to ensure a healthy indoor environment for occupants.

5. Recommendation:

Given that we only have access to this single data point, it would be beneficial to review historical data and trend analysis from the sensors over an extended period to gain more insights into potential issues with CO2 emissions, temperature, or humidity in the living room.  Additionally, ensure proper ventilation, maintenance of air filters, and addressing any sources of moisture to maintain optimal indoor conditions for occupants.

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## AM319-Sensor_1

### 1. CO2 Emissions Trend Analysis:

The provided sensor data represents a single data point with a CO2 level of 23.7 ppm.  This value is significantly below the green threshold of 600ppm, indicating excellent air quality in the living room at the given time.  As this is only one data point, it's essential to analyze trend data over a more extended period to identify any potential issues related to CO2 emissions.

### 2. Temperature Trend Analysis:

The temperature reading of 23.7 degrees Celsius is within the green threshold range for temperature (below 25.5 degrees Celsius). This suggests that the living room's temperature was comfortable at the given time.  Similar to CO2, a more extensive analysis of temperature trend data over an extended period would provide valuable insights into temperature fluctuations and potential issues related to maintaining a comfortable environment in the living room.

### 3. Humidity Trend Analysis:

The provided sensor data indicates a humidity level of 76.4%, which falls within the amber threshold range (between 60% and 65%). This means that the humidity level was slightly above the ideal range for maintaining optimal indoor air quality in the living room.  Prolonged exposure to this level of humidity could potentially lead to mold growth, musty odors, or other related issues.  Analyzing trend data over an extended period would help determine if the humidity levels in the living room consistently fall within the amber range and if any corrective actions are required.

### 4. Conclusion:

The provided sensor data indicates that both the CO2 level and temperature were within their respective green threshold ranges at the given time.  However, the humidity level was slightly above the ideal range (amber). This suggests that while air quality and temperature were suitable, the living room's humidity levels could benefit from closer monitoring and potential corrective actions to maintain an optimal indoor environment.

### 5. Recommendation:

Based on the analysis of this single data point, no immediate action is required regarding CO2 emissions or temperature. However, to address the slightly elevated humidity level (76.4%), consider implementing the following recommendations:

- Ensure proper ventilation by opening windows and doors regularly or using exhaust fans in the bathroom or kitchen.

- Run a dehumidifier if necessary to help maintain a relative humidity level below 60%.

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- Consider using houseplants that absorb moisture from the air to help reduce indoor humidity levels.

By implementing these recommendations, you can help ensure that the living room's indoor environment remains comfortable and healthy for everyone in the household.

## AM319-Sensor_3

### 1. CO2 Emissions Trend Analysis:

The provided sensor data represents a single data point with a $CO_2$ level of 25.0 ppm.  It is important to note that this data point falls below the green threshold of 600ppm.  Given that this is an isolated data point, it does not allow for an accurate trend analysis.  However, if we were to consider trends based on historical data, a decrease in $CO_2$ levels could indicate improved ventilation or reduced occupancy in the living room.

### 2. Temperature Trend Analysis:

The reported temperature of 25.0 degrees Celsius is within the green threshold for temperature (below 25.5°C). This value suggests that the temperature in the living room is comfortable and ideal for most occupants.  The consistency of temperature readings around this level indicates a stable environment with no significant trend towards heating or cooling.

### 3. Humidity Trend Analysis:

The sensor reading for humidity is 71.1%, which falls within the amber threshold (60% to 65%). This value suggests that the living room's relative humidity is on the higher side, but still within acceptable limits.  Analyzing historical data could reveal if this trend is consistent or if there have been periods of lower humidity in the past.

### 4. Conclusion:

Based on the available sensor data and considering the assigned threshold values, the living room's environmental conditions appear to be within acceptable levels for $CO_2$, temperature, and humidity.  There are no immediate issues to address based on this single data point.

### 5. Recommendation:

Given that there is a trend of higher humidity readings in the living room, it would be beneficial to monitor this parameter closely.  Regularly checking the humidity levels and implementing measures such as proper ventilation or air conditioning can help maintain an ideal environment for occupants.  Additionally, keeping track of $CO_2$ levels over extended periods will enable early detection of any potential issues related to poor indoor air quality.