Quick Start Guide Air Quality Evaluation Board AAS-AQS-UNO(-RH(-CO2))



What is in the package:

AAS-AQS-UNO Evaluation Kit Includes:

- 1 Arduino compatible board with preloaded software
- 1 AAS-AQS-UNO sensor evaluation board (shield)
- 1 USB data line
- 1 OLED screen
- 1 SM-PWM-01C Dust Sensor







Arduino Board, Display, and Sensor Shield



Dust Sensor

AAS-AQS-UNO-RH-CO2 Kit Includes: 1 AAS-AQS-UNO 1 T9602-3-D-1 Humidity & Temp Sensor 1 T6713-6H CO2 Sensor Module

The Sensor Shield (Connection board) is despatched attached to the Arduino compatible board. The Arduino compatible provides power to the sensors and processes the sensor data and displays the values. The display will by default show the dust sensor value, and will display the optional sensors if they are fitted. The Arduino compatible is freely user programmable to send values to a connected PC, accept other sensors using the Arduino[®] IDE program.

The dust sensor value is calculated as a 2 minute rolling average and updated every 5 seconds.

The Evaluation kit can be powered from any standard USB source.

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T6713-6H



Sensor Shield Connectors:



Connecting Up

Firstly place some tape over the cleaning window of the dust sensor. Shown here as some red PVC tape. The upper and lower windows must remain open. For further details refer to application guide.





Then plug the dust sensor onto the sensor shield and power the board up. After boot up the sensor will display a colour code similar to the US EPA colour code values.

If supplied, the T6713-6H CO2 sensor and/or the T9602-3-D-1 humidity and temperature sensor should be plugged in with power off. The values will be displayed after the next boot.

Note: Handling and transport may take the T6713 out of calibration. The internal ABC Logic will correct the calibration, but may take up to a week of continuous operation to do so.



Software

The software used is available on Github (<u>https://github.com/AmphenolAdvancedSensors</u>) and can be manipulated using the Arduino[®] IDE program. Other Arduino[®] sketches are available in this repository for other sensors in the Amphenol Advanced Sensors Range.

Using the existing software by changing the remark lines at the top the board will send values of connected sensors to the USB Serial port where they can be logged by the PC. Free to Use software such as Coolterm can be used to collect the data for subsequent analysis.

Arduino is the registered trademark of Arduino LLC.

Reference Documents

Dust Sensor Application Guide (AAS-920-668A)

http://amphenol-sensors.com/en/products/co2/co2-modules/3222-telaire-smart-dust-sensor#download

Telaire ChipCap 2 Application Guide, for T9602 (AAS-916-127)

http://amphenol-sensors.com/en/products/humidity/relative-humidity-sensors/3224-telaire-t9602-humidity-temperature-sensor#download

Telaire 6700 Series Application Note

http://amphenol-sensors.com/en/products/co2/co2-modules/3215-t6700#download

www.telaire.com

www.amphenol-sensors.com

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