AdafruitMS8607 Library Documentation

Release 1.0

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Contents

CircuitPython driver for the MS8607 PTH sensor

CHAPTER 1

Dependencies

This driver depends on:

- Adafruit CircuitPython

Please ensure all dependencies are available on the CircuitPython filesystem. This is easily achieved by downloading the Adafruit library and driver bundle.

CHAPTER 2

Installing from PyPI

On supported GNU/Linux systems like the Raspberry Pi, you can install the driver locally from PyPI. To install for current user:

```
pip3 install adafruit-circuitpython-ms8607
```

To install system-wide (this may be required in some cases):

```
sudo pip3 install adafruit-circuitpython-ms8607
```

To install in a virtual environment in your current project:

```
mkdir project-name && cd project-name
python3 -m venv .env
source .env/bin/activate
pip3 install adafruit-circuitpython-ms8607
```

CHAPTER 3

Usage Example

```
from time import sleep
import board
from adafruit_ms8607 import MS8607

i2c = board.I2C()
sensor = MS8607(i2c)

while True:

    print("Pressure: %.2f hPa" % sensor.pressure)
    print("Temperature: %.2f C" % sensor.temperature)
    print("Humidity: %.2f %% rH" % sensor.relative_humidity)
    sleep(1)
```

CHAPTER 4

Contributing

Contributions are welcome! Please read our Code of Conduct before contributing to help this project stay welcoming.

CHAPTER 5

Documentation

For information on building library documentation, please check out this guide.

CHAPTER 6

Table of Contents

6.1 Simple test

Ensure your device works with this simple test.

Listing 1: examples/ms8607_simpletest.py

```
# SPDX-FileCopyrightText: 2020 Bryan Siepert, written for Adafruit Industries
# SPDX-License-Identifier: MIT
from time import sleep
import board
from adafruit_ms8607 import MS8607

i2c = board.I2C()
sensor = MS8607(i2c)

while True:

    print("Pressure: %.2f hPa" % sensor.pressure)
    print("Temperature: %.2f C" % sensor.temperature)
    print("Humidity: %.2f %% rH" % sensor.relative_humidity)
    print("\n-----------------------------------------------\n")
    sleep(1)
```

6.2 adafruit_ms8607

CircuitPython driver for the MS8607 PTH sensor

- Author(s): Bryan Siepert

6.2.1 Implementation Notes

Hardware:

- Adafruit's MS8607 Pressure Humidity Temperature Breakout

Software and Dependencies:

- Adafruit CircuitPython firmware for the supported boards: https://github.com/adafruit/circuitpython/releases
- Adafruit's Bus Device library: https:#github.com/adafruit/Adafruit_CircuitPython_BusDevice
- Adafruit's Register library: https:#github.com/adafruit/Adafruit_CircuitPython_Register

class adafruit_ms8607.**CV**
struct helper

classmethod add_values(*value_tuples*)
Add CV values to the class

classmethod is_valid(*value*)
Validate that a given value is a member

class adafruit_ms8607.**HumidityResolution**
Options for *pressure_resolution*

class adafruit_ms8607.**MS8607**(*i2c_bus*)
Library for the MS8607 Pressure, Temperature and Humidity Sensor

Parameters **i2c_bus** (*I2C*) – The I2C bus the MS8607 is connected to.

Quickstart: Importing and using the MS8607 temperature sensor

Here is an example of using the *MS8607* class. First you will need to import the libraries to use the sensor

```
import board
import adafruit_ms8607
```

Once this is done you can define your board.I2C object and define your sensor object

```
i2c = board.I2C()  # uses board.SCL and board.SDA
ms = adafruit_ms8607.MS8607(i2c)
```

Now you have access to the pressure, temperature and humidity using the *pressure*, *temperature* and *relative_humidity* attributes

```
temperature = ms.temperature
relative_humidity = ms.relative_humidity
pressure = ms.pressure
```

humidity_resolution
The humidity sensor's measurement resolution

initialize()
Configure the sensors with the default settings and state. For use after calling *reset()*

pressure
The current barometric pressure in hPa

pressure_and_temperature
Pressure and Temperature, measured at the same time

pressure_resolution
The measurement resolution used for the pressure and temperature sensor

relative_humidity
The current relative humidity in % rH

reset()
Reset the sensor to an initial unconfigured state

temperature
The current temperature in degrees Celcius

class adafruit_ms8607.**PressureResolution**
Options for *pressure_resolution*

CHAPTER 7

Indices and tables

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