

# Pressure Sensor - BMP384 (Qwiic)

SEN-19662

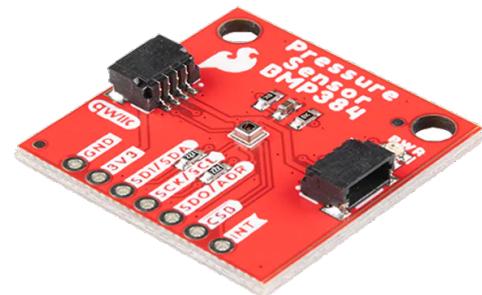
## Product Overview

09/29/2022

For the most up-to-date information, visit [www.mouser.com](http://www.mouser.com) or the supplier's website.

## Description

SparkFun Pressure Sensor - BMP384 (Qwiic) excels at high-resolution measurements (up to 24-bit) and uses a gel-filled cavity to provide resistance to liquids (water and other chemicals). Due to this cavity, the sensor is able to monitor pressure near water or in humid environments though the sensor is not waterproof. This pressure sensor features an internal temperature sensor, a configurable oversampling setting, a FIFO buffer for storing up to 73 measurements, and a low-pass filter. The Qwiic pressure sensor - BMP384 (Qwiic) communicates over I<sup>2</sup>C by default (utilizing the Qwiic system), so no soldering is required to connect it to the sensor. This BMP384 pressure sensor operates from -40°C to 85°C temperature range and 1.65V to 3.6V supply voltage range.



The pressure sensor - BMP384 has three operating modes sleep mode, normal mode, and forced mode. In the sleep mode, the sensor is idle and consumes 2 $\mu$ A. In the normal mode, the sensor automatically cycles between measurement and standby periods and consumes 700 $\mu$ A at peak current draw during measurements. In the forced mode, BMP384 allows direct control of measurements to wake the sensor from sleep mode, take a single-shot measurement and return the device to sleep mode.

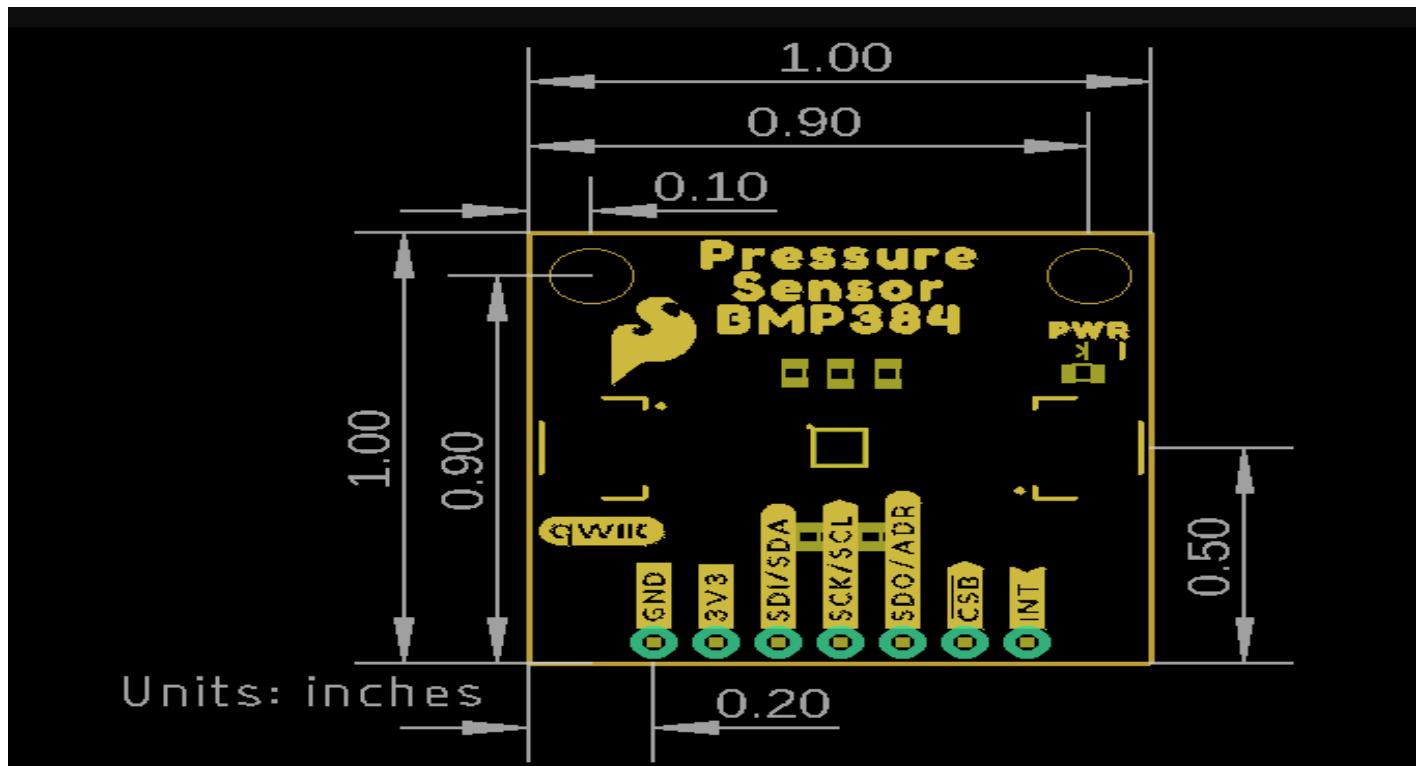
## Specifications

- 1.65V to 3.6V supply voltage range
- Current draw:
  - 700 $\mu$ A peak while measuring pressure
  - 3.4 $\mu$ A at 1Hz pressure and temperature monitoring with ultra-low power oversampling settings
  - 2 $\mu$ A in sleep mode
- Data transfer speeds:
  - 3.4MHz (I<sup>2</sup>C)
  - 10MHz (SPI)
- 0x77 (Default), 0x76 (Alternate) I<sup>2</sup>C address
- Internal temperature sensor

## Board Overview



## Board Dimensions

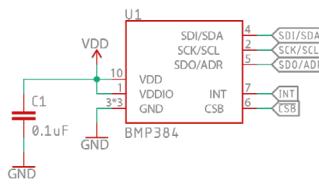


## Schematic

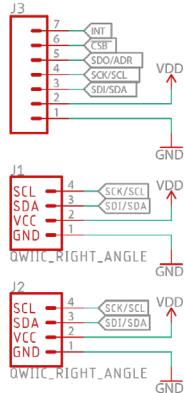
Pressure Sensor – BMP384

VDD Range:	1.65V to 3.6V
WARNING	

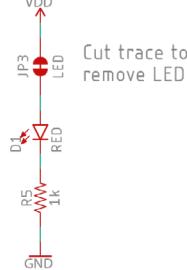
Interface pins should be kept low while not powered!



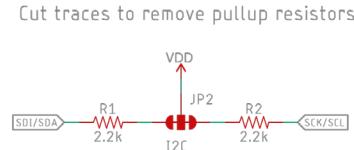
### Connectors



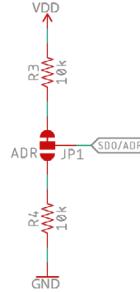
### Power LED



SDA/SCL Pullups



### I2C Address Selection



I2C Address Select	
GND	0x76
VDD (Default)	0x77
Open	SPI
Both	Undef

## Mouser Part Number

[View Part](#)

To learn more, visit <https://www.mouser.com/new/sparkfun/sparkfun-pressure-sensor-bmp384/>