Manometer click

PID: MIKROE-2237

RS Product Code: 136-0807

Manometer click is an add-on board with a piezo resistive silicon pressure sensor. The on board Honeywell HSCMAND060PA3A3 module has an industry-leading, extremely high accuracy of ±0.25%FSS BFSL. An absolute pressure range from 0 to 60 PSI makes it suitable for a variety applications. Beyond the measurement range, the sensor has a high burst pressure threshold, resulting in increased reliability. The barbed port accepts 4.93 mm (0.19”) tubing. Manometer click communicates with the target board MCU through the mikroBUS I2C interface (SCL, SDA). Manometer click uses a 3.3V power supply.

Specification

Product Type	Pressure / Altitude
Applications	A highly accurate pressure sensor suitable for demanding industrial applications (robotics, automotive, aircraft, HVAC, food production, engine controls, agriculture and more)
On-board modules	Honeywell HSCMAND060PA3A3
Key Features	Industry-leading extremely high accuracy of ±0.25 %FSS BFSL. Pressure range from 0 mbar to 60 PSI
Key Benefits	High burst pressure threshold. Low power consumption
Interface	I2C
Power Supply	3.3V
Compatibility	mikroBUS
Click board size	S (28.6 x 25.4 mm)
Weight	24g

Features and usage notes

The sensor on Manometer click is a highly reliable and robust unit. It's also fairly easy to use and implement. It requires no calibration and it compensates for environmental conditions by relying on its internal temperature sensor.

The HSC Series is calibrated over the temperature range of 0 °C to 50 °C (32 °F to 122 °F).

The temperature sensor can also be accessed independently through the I2C interface.

The barbed port accepts 4.93 mm (0.19”) tubing which connects directly (no special extensions required).

Programming

The following code snippet shows how our library simplifies the usage of Manometer click.

```
#include "manometer_hw.h"
void main()
{
    float pressure, temp;
    int count = 0;
    TWI_Init( 100000 );
    manometer_init( MANOMETER_ADDRESS_TYPE_3, 0, 60 );
    pressure = manometer_get_pressure();
    temp = manometer_get_temp( CELSIUS );
    if( pressure > 45 && temp > 35 )
        count++;
}
```

Code examples that demonstrate the usage of Manometer click with MikroElektronika hardware, written for mikroC for ARM, AVR, dsPIC, FT90x, PIC and PIC32 are available on Libstock.

Downloads

Manometer click Examples

Manometer click Schematic

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