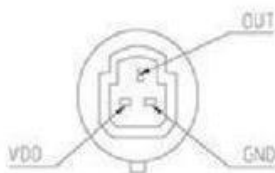
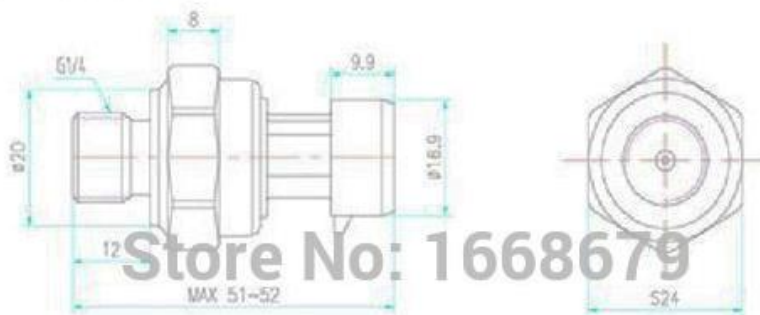
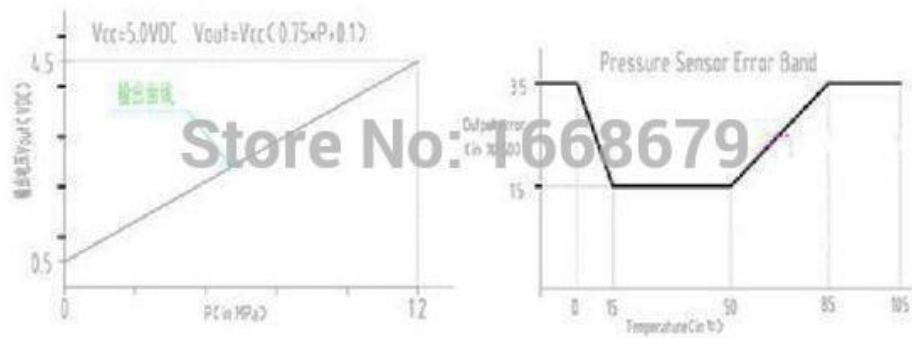


Druckmessung

Sensor:

<https://de.aliexpress.com/item/DC-5V-G1-4-Pressure-Sensor-Transmitter-Pressure-Transducer-1-2-MPa-174-PSI-For-Water/32656389610.html?spm=a2g0s.9042311.0.0.3da24c4dqtznBO>

Kennlinie: $V_{OUT} = V_{CC} * (0,75 * p + 0,1)$

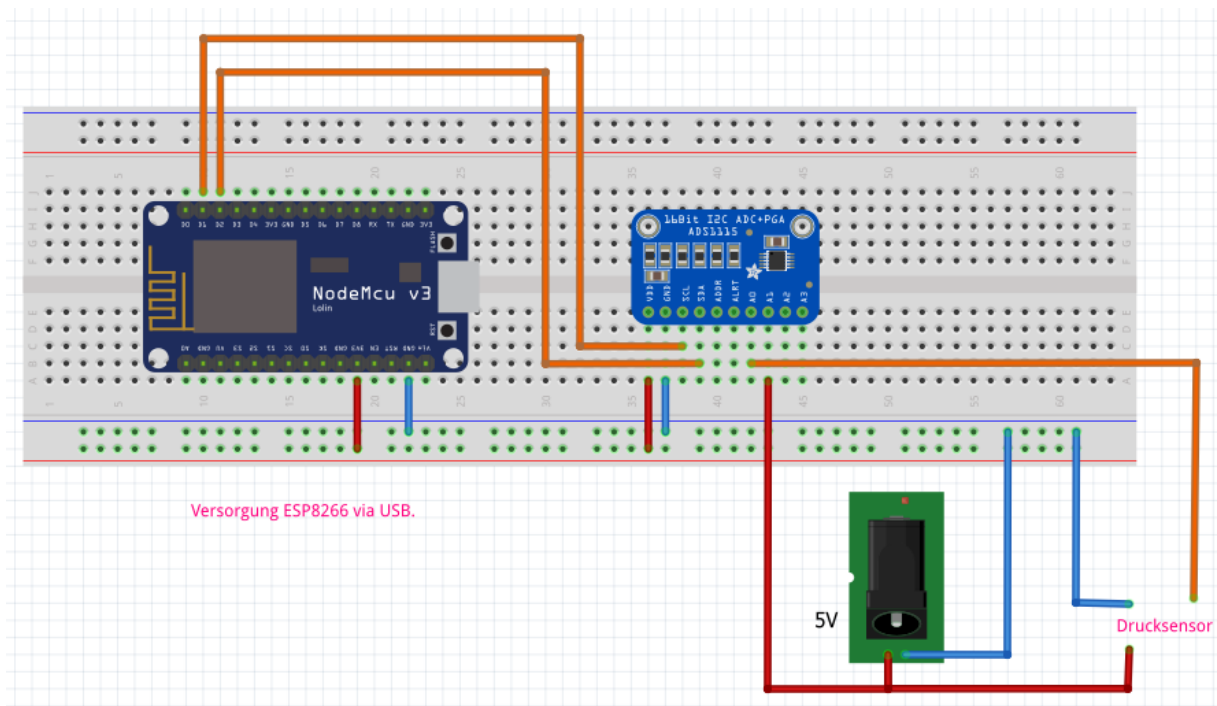


Lead To Define:

VCC: Red wire (Power+)
OUT: Blue wire (Signal Output)
GND: Black wire (Power-)

A/D-Wandler:

ADS1115



CODE

```

#include <Arduino.h>
#include <Wire.h>
#include <Adafruit_ADS1015.h>

Adafruit_ADS1115 ads; /* Use this for the 16-bit version */
// Adafruit_ADS1015 ads; /* Use thi for the 12-bit version */

void setup(void)
{
  Serial.begin(9600);
  Serial.println("Hello!");

  //Serial.println("Single-ended readings from AIN0 with >3.0V comparator");
  //Serial.println("ADC Range: +/- 6.144V (1 bit = 3mV/ADS1015,
0.1875mV/ADS1115)");
  //Serial.println("Comparator Threshold: 1000 (3.000V)");
  // Wire.begin(D1,D2); // Anschluss von I2C

  // The ADC input range (or gain) can be changed via the following
  // functions, but be careful never to exceed VDD +0.3V max, or to
  // exceed the upper and lower limits if you adjust the input range!
  // Setting these values incorrectly may destroy your ADC!
  //
  //
  ADS1015
  //
  -----

```

```

    ads.setGain(GAIN_TWOTHIRDS); // 2/3x gain +/- 6.144V 1 bit = 3mV
0.1875mV (default)
    // ads.setGain(GAIN_ONE); // 1x gain +/- 4.096V 1 bit = 2mV
0.125mV
    // ads.setGain(GAIN_TWO); // 2x gain +/- 2.048V 1 bit = 1mV
0.0625mV
    // ads.setGain(GAIN_FOUR); // 4x gain +/- 1.024V 1 bit = 0.5mV
0.03125mV
    // ads.setGain(GAIN_EIGHT); // 8x gain +/- 0.512V 1 bit = 0.25mV
0.015625mV
    // ads.setGain(GAIN_SIXTEEN); // 16x gain +/- 0.256V 1 bit = 0.125mV
0.0078125mV

    ads.begin();

    // Setup 3V comparator on channel 0
    // ads.startComparator_SingleEnded(0, 1000);
}

void loop(void)
{
    int16_t adc0, adc1, adc2, adc3;
    double_t Spannung_p, Spannung_r, Druck, Faktor;
    Faktor = 0.0001875;

    // Comparator will only de-assert after a read
    adc0 = ads.readADC_SingleEnded(0); // Sensoreingang an A0
    Spannung_p = adc0*Faktor;

    adc1 = ads.readADC_SingleEnded(1); // Referenzspannung an A1
    Spannung_r = adc1*Faktor;

    Druck = ((Spannung_p/Spannung_r)-0.1)/0.75 ;
    //adc2 = ads.readADC_SingleEnded(2);
    //adc3 = ads.readADC_SingleEnded(3);

    Serial.print("Spannung: ");
    Serial.println(Spannung_p);
    Serial.print("Druck: ");
    Serial.println(Druck);
    //Serial.print("AIN2: ");
    //Serial.println(adc2);
    //Serial.print("AIN3: ");
    //Serial.println(adc3);

    delay(1000);
}

```