ABSTRAC

pH Meter is a device used to express the level of acidity or basicity possessed by a substance or solution. Normal pH has a value of 7 while the pH value> 7 indicates that the substance has alkaline properties while the pH value <7 indicates acidic properties. pH 0 shows a high degree of acidity, and pH 14 shows the highest degree of alkalinity.

pH Meter reads the pH and temperature values in a sample. The author uses glass electrodes as a pH sensor, DS18B20 as a temperature sensor and LCD to make pH and temperature values. This module is equipped with an internal calibration that is used to set the module to read the pH value properly and correctly using a pH buffer and equipped with internal storage and this module facilitates battery usage.

Based on pH measurements on the module the error value in buffer 4 calibration is 5.39%, in buffer 7 is 1.76%, in buffer 10 is 1.04%. The highest error value in the measurement sample is 3.54% and the lowest error value is 0.03%. The temperature of the sample is very influential on the reading of the pH value because the higher the temperature the pH value also increases even though it is not so significant.

Keywords : pH meter, Electrode, DS18B20