ABSTRACT

A temperature calibration device is a tool used to measure the accuracy of a temperature-related device such as a sterilizer. This temperature calibration device is needed when the temperature in the sterilizer is not linear. In this calibration tool the sensor used is a type-k thermocouple that is inserted into the media to be measured then the temperature results will be read. This tool is designed using pre-experimental methods with the type of after only design research. In this tool is equipped with storage on the micro sd card and also conversion mode to convert temperature results from Celsius to Rheamur, Farenheit and Kelvin. Temperature results will be displayed on a 4x20 LCD and processed using Arduino UNO. This module can be used in medical equipment calibration laboratories. After testing the thesis module with a comparison device from BPFK, the biggest error is obtained at 1% at 50 ° Celsius, 100 ° Celsius and 150 ° Celsius. The smallest percentage of error is 0% at 50 ° Celsius and 150 ° Celsius. It can be concluded that the tool "Temperature Calibrator (5 Channels) Using Thermocouple Equipped with Data Storage

Keywords: Sterilisator, Temperature, SD Card