

ABSTRACT

Sphygmomanometer is a medical instrument used to measure arterial blood pressure indirectly (non-invasively) with the help of a stethoscope. Digital Pressure Meter is used to measure positive and negative pressure on medical devices. Calibration is a technical activity consisting of determining, determining one or more properties and characteristics of a product, process or service in accordance with certain predetermined procedures. The tool used to calibrate the pressure on the sphygmomanometer is a Digital Pressure Meter. The purpose of the Digital Pressure Meter which is equipped with SD card storage is to make the blood pressure monitoring device more informative, effective and accurate in its measurement. The contribution of this research is that the system can be run using an inflatable pressure sensor, the measurement results are displayed on a 2.8-inch Nextion TFT. Using the MPX5050GP sensor as a positive pressure sensor. Requires a maximum pressure of 300 mmHg. This tool is also equipped with a leak test timer. The screen used in this module is a 2.8-inch Tft Nextion. The results of storing measurement data on the SD Card will be displayed in the form of a Notepad (txt) file and can be read using a computer. Based on the pressure measurement test generated on the module using the Rigel Medical UNI-SIM and the measurement process on the Riester nova-presameter mercury sphygmomanometer for 6 measurements, the smallest result is 0 mmHg at 0 mmHg and the largest is 199.9 mmHg at 200mmHg. This tool has an error value of 1.3% and 0.68% and has a difference or correction value of 0-2 mmHg.

Keyword: Gauge, Digital Pressure Meter, SD Card Memory