

ABSTRACT

The blood pressure is the pressure in the veins or arteries that send blood to others part of boby , such as the main veins. The standard value of blood pressure in sphygmomanometer, measurements and blood pressure readings must be done properly, this is because regarding the health and safety of patient examination results of blood pressure with sphygmomanometer, therefore it is necessary to do calibration to determine the truth value of a sphygmomanometer the way compare it against standards traceable measurement. In this case sphygmomanometer calibration can be performed with DPM (Digital Pressure Meter).

Sphygmomanometer calibration using DPM is comparing the value of scale measuring the blood pressure meter tube with a measuring scale. The author using the MPX5100GP sensor as pressure sensors and Arduino microcontroller as data processor in the manufacture of DPM. Incoming pressure sensor is then processed by a Arduino microcontroller to be displayed on the LCD as a comparison scale Sphygmomanometer pressure. When the pressure coming into the sensor then processed by a microcontroller to be displayed on the LCD as a comparison scale of sphygomometer pressure.

Based on the measurement and comparison of the data with the DPM comparison performed five times the average results obtained% 0.34% error in the measurement rises, and 0.13% in the measurement down. It can be concluded that the tool is fit to use.

Keyword: *Pressure, MPX5100GP, Sphygmomanometer*