

ABSTRACT

Waterbath plane is a laboratory tool that is used for the incubation of water samples through the media in a controlled temperature and humidity on the tool is only used for escherichia coli bacteria, a plane commonly used in laboratory waterbath in which the temperature of 37°C is used only with 80% humidity with 48 hours timer setting (2 days).

To set the humidity at room temperature to the incubated samples can survive and control the room temperature tersaebut to remain stable and the tool is equipped with a timer for 48 hours (2 days) for 2 days and keep the temperature and humidity to remain stable but to turn to timer is done manually.

Based on measurements of temperature, humidity and timer found error rates (% error) as follows: at 37 ° C is 0.055% errornya%, 0.075% moisture% error. And 48-hour timer error% 0.8%.

By using the digital system on the entire system from start to control temperature, humidity and timer with the seven segment display.

Based on these data and the above calculation, the error can average = 0.31%, so this module has a data error on average below 5% (<5%), then the tool can be used.

Keywords: waterbath, temperature, timer, humidity.