

## **INTISARI**

### **APLIKASI SENSOR TEMPERATUR RTD PT100 PADA SISTEM PENDINGIN ENGINE DI LOMBOK GECC POWER PLANT (PEAKER)**

**130-150 MW**

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Kebutuhan energi listrik semakin meningkat selaras dengan peningkatan perekonomian di Indonesia. Pada sistem pendingin mesin pembangkit listrik, terdapat sensor *PT100*. *PT100* merupakan sensor temperatur yang prinsip kerjanya berdasarkan pengukuran resistansi (*RTD*). Tujuan dari penelitian ini yaitu memahami pengaplikasian sensor *PT100* pada sistem pendingin *engine*.

Sampel penelitian ini adalah sensor *PT100* pada sistem pendingin engine di Lombok GECC Power Plant. Pengecekan safety device dilakukan saat engine tidak beroperasi dengan menggunakan alat seperti multi calibrator, hand pump, speed simulator, dan multimeter. Dilakukan pengumpulan data temperatur sebanyak 10 data dan instalasi alat sesuai dengan SOP (Standar Operasional Prosedur).

Sensor *PT100* pada sistem pendingin *engine* diaplikasikan untuk monitoring temperatur pada engine serta sebagai komponen pendukung *safety device*. Ketika temperatur mencapai batas 110° C, maka secara otomatis *engine* berhenti beroperasi.

**Kata kunci** : *PT100, Safety Device, Engine*.

## **ABSTRACT**

### ***PT100 TEMPERATURE SENSOR APPLICATION IN ENGINE COOLING SYSTEM IN LOMBOK GECC POWER PLANT (PEAKER) 130-150 MW***

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*The needs for electricity is increasing in line with the improvement of the economy in Indonesia. In the power plant engine cooling system, there is a PT100 sensor. PT100 is a temperature sensor with a working principle based on resistance measurement (RTD). The purpose of this study is to understand the application of PT100 sensors to the engine cooling system.*

*The sample of this study is the PT100 sensor on the engine cooling system in Lombok GECC Power Plant. Safety device checking is done when the engine stopped by using tools such as multi calibrators, hand pumps, speed simulators, and multimeters. 10 temperature data were collected and the installation of equipment in accordance with SOP (Standard Operating Procedure).*

*PT100 sensor in the engine cooling system is applied for monitoring the temperature of the engine as well as supporting safety device components. When the temperature reaches the 110 ° C, the engine automatically stop operating.*

***Keywords:*** *PT100, Safety Device, Engine*