

## Analysis of Transformer by Gas and Moisture Sensor during Laboratory Time Monitoring

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**Abstract :** Ensure the reliable and correct function of transformers is the main essence of on-line non-destructive diagnostic tool, which allows the accurately track of the status parameters. Devices for on-line diagnostics are very costly. However, there are devices, whose price is relatively low and when used correctly, they can be executed a complex diagnostics. One of these devices is sensor HYDRAN M2, which is used to detect the moisture and gas content in the insulation oil. Using the sensor HYDRAN M2 in combination with temperature, load measurement, and physicochemical analysis can be made the economically inexpensive diagnostic system, which use is not restricted to distribution transformers. This system was tested in educational laboratory environment at measured oil transformer 22/0.4 kV. From the conclusions referred in article is possible to determine, which kind of fault was occurred in the transformer and how was an impact on the temperature, evolution of gases and water content.

**Keywords :** transformer, diagnostics, gas and moisture sensor, monitoring

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