

COMEM

CONTROL &
PREVENT

MOISTURE
PRESENCE.

REGULARLY.



Power transformers rely on the proven combination of paper and oil insulation. Despite advances in materials science, no alternative has yet matched the reliability and performance of this traditional system. However, the longevity and efficiency of paper-oil insulation is highly dependent on maintaining optimal environmental conditions; particularly in terms of moisture prevention.

Moisture: The silent threat to the transformer's longevity

Moisture is a silent but serious threat to transformer health, contributing to aging and failures in transformers.

It compromises both the oil and the cellulose-based paper insulation.

Proactive moisture mitigation:

To limit moisture ingress, dehydrating breathers with hygroscopic salts are commonly used. These devices prevent ambient moisture from entering the conservator.

Choose our advance Self-dehydrating breather type eSDB.

Whether you are managing asset health remotely or on-site, our eSDB breathers provide continuous protection. Your transformer will be continuously protected from moisture intake, and you can collect the necessary data online for remote transformer health management.

Understanding the source:

While external contamination can introduce moisture, it is also essential to understand that moisture found in transformers can originate internally. As paper insulation ages, especially under hot temperatures, it decomposes and releases water. This means that even a perfectly sealed transformer can accumulate moisture over time. Therefore, **moisture management is not just about sealing the transformer—it is about monitoring and mitigating internal degradation.**

However, understanding moisture levels inside a transformer goes beyond external protection. Historically, moisture data could only be obtained through oil sampling and laboratory analysis, including Dissolved Gas Analysis (DGA). These methods, while helpful, offer only snapshots in time. Today, continuous monitoring technologies provide real-time insights, enabling predictive maintenance and early intervention.

Choose our Oil diagnostic device type eDOC.

Measure the presence of moisture and hydrogen inside the transformer oil continuously and make informed decisions about the asset maintenance needs.

Power of data driven maintenance strategy.

The true power of continuous monitoring lies in its ability to build historical data trends. These trends reveal patterns and anomalies that single data points cannot. With consistent data references and real-time data, operators can make informed decisions that extend the life of transformers and reduce operational risk.

MeDICA, our Monitoring ecosystem for transformer Diagnostics with Integrated Customer services and Analytics.

By integrating and interpreting data from online monitoring and offline testing, we can develop a sustainable maintenance strategy together and ensure a longer lifespan for your transformer.

Moisture care:

Moisture is inevitable—but its impact does not have to be. With the right tools, product solutions, and services to monitor and prevent moisture, you can protect your transformers, optimize performance, and secure your investment for the long term.

Moisture in transformers? No problem with our solution.

Our Moisture Care includes:

- Self-dehydrating breather type eSDB that prevents moisture from entering your transformer.
- Oil diagnostic device type eDOC that detects moisture levels in the oil.
- Consulting services and regular reports to support you with moisture management.

Contact us: marketing@comem.com

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