



# VAISALA

## Measurement Instruments for the Power Industry

Now featuring  
the NEW Vaisala  
**Optimus™**  
**DGA Monitor**  
for Transformers





# Why Vaisala

Vaisala offers a range of specialized online measurement equipment for the power industry. The reliable online measurement of moisture and hydrogen in transformer oil, dew point, humidity, density, temperature, and pressure helps to ensure that high-voltage assets can operate at maximum efficiency while supporting the planning of predictive maintenance designed to extend asset lifetime and minimize unexpected outages.

- 80 years of measurement experience
- Thousands of installations in the power industry
- Service centers in Finland, China, Japan, and the US

[Explore Vaisala's history with our interactive timeline.](#)



# Explore



## EXPERIENCE

What Makes Vaisala Different



## MEASURE

Applications, Parameters, Instruments



## MAINTAIN

Calibration and Repair Services



## WATCH

Informative Video Links



## LEARN

Collection of Webinars



## INQUIRE

Contact Us and FAQs



NEW

# Prevent Power Transformer Failure

Introducing the **NEW Online Measurement Device for Transformer Dissolved Gas Analysis**

Building on unique technology, the **Vaisala Optimus™ OPT100 DGA Monitor for Transformers** solves many current problems in transformer maintenance.

[www.vaisala.com/OPT100](http://www.vaisala.com/OPT100)

**VAISALA**



# Experience

At Vaisala we pride ourselves on staying connected with our customers throughout the lifecycle of their instrument and application. Many of our customers share their experiences with us.

Below is a story of how Ergon Energy is increasing the use of online monitoring of their assets with Vaisala's MMT338 transmitters which aid in maintenance planning and daily grid operations.

"We find our partnership with Vaisala to be very valuable. Vaisala provides practical solutions to operational and transformer life management issues."

*Greg Caldwell,  
Ergon Energy.*

## CUSTOMER STORY

### **VAISALA** / CUSTOMER STORY

**Ergon Energy Optimizes its Asset Utilization with Online Transformer Monitoring**



# Industry Experts

Vaisala brings Best-In-Class value to our customers every day. To ensure we continue to understand your needs, we take customer feedback seriously and cater to your specific requests. Our premium manufacturing facility ensures that the instruments we offer meet your most demanding requirements in a wide variety of applications.

Our sales and engineering team is extremely **skilled** and **experienced** and is **always available to help** our customers with optimal solutions for their business needs.

*Gerry Ducharme,  
AMER Controlled  
Environment Group*

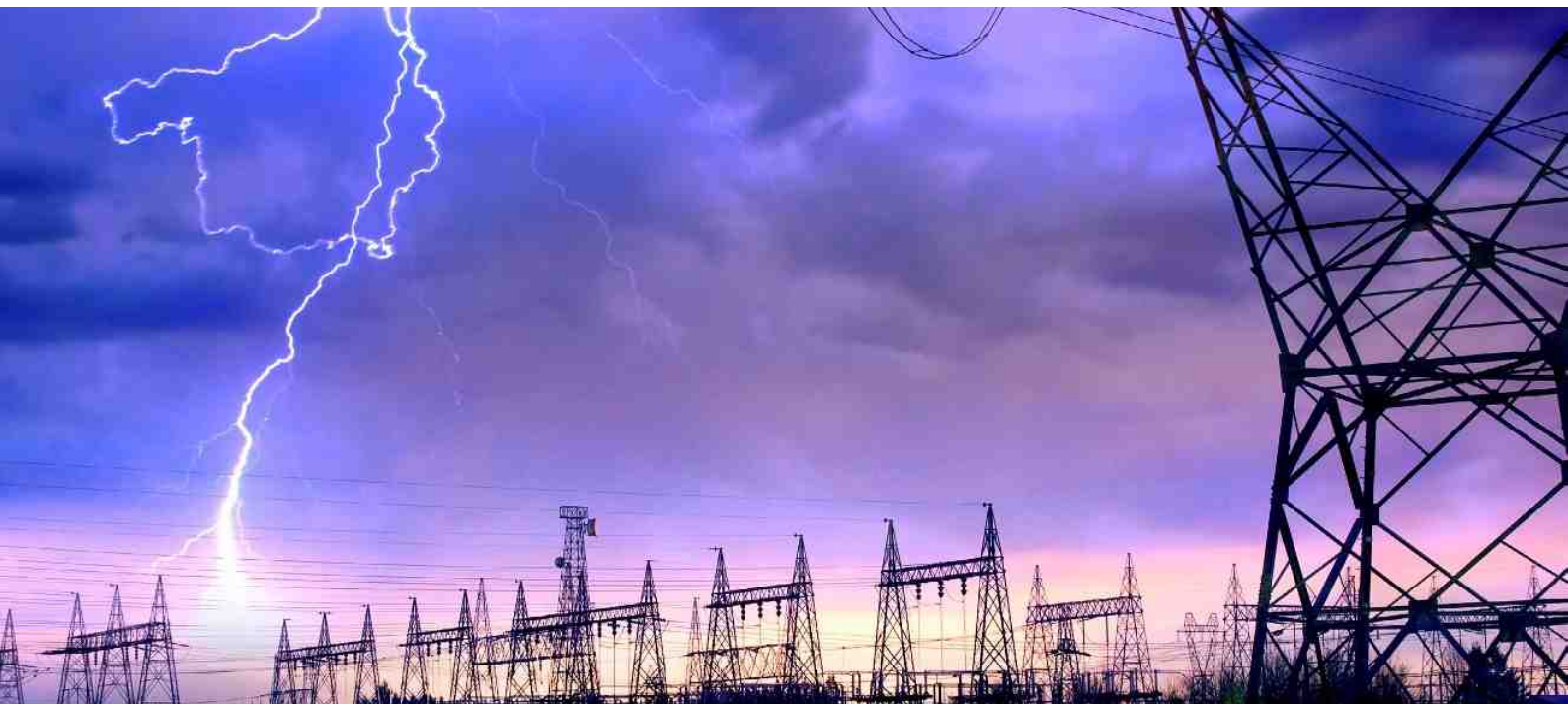




# Measure

For the power generation and transmission industry, Vaisala provides unique measurement equipment for online monitoring of transformer insulation oil. Our reliable solutions support in planning and optimizing the preventive maintenance of high-voltage assets, and thus help to extend the asset lifetime and reduce the risk of unexpected outages.

Keep reading to learn more about the right fit for your application and the different parameters we measure.





# Parameters and Applications

Click on the icons below for information  
about the parameters we measure.



HYDROGEN  
IN OIL



RELATIVE  
HUMIDITY



MOISTURE  
IN OIL



DEW  
POINT



**NEW** DISSOLVED  
GAS ANALYSIS







# Power Transformers

Online monitoring of hydrogen and moisture in power transformers maximizes safe performance, provides early warning of transformer fault situations, and supports planning of timely maintenance that minimizes outages.

## TRANSFORMERS

Click on the thumbnails below to view our products:



**New** OPT100



MHT410



MMT330



MM70





# Power Transformers

Ensure correct dew point levels during transformer commissioning and servicing in the field using vacuum dryout. Vaisala's fixed and portable dew point instruments offer fast response time, enabling quick and reliable verification of specified moisture levels.

## TRANSFORMERS

Click on the thumbnails below to view our products:



*DMT340*



*DMT143*



*DM70*







# SF6 Gas Insulated Equipment

Confirm the dryness of SF6 filled circuit breakers and switchgear with a reliable dew point measurement.

SF6 GAS

Click on the  
thumbnails  
below to view  
our products:



*The Vaisala Transmitter DPT145 for SF6 Gas is a unique innovation that measures dew point, pressure and temperature with one meter, and calculates four others online, including density. One transmitter, seven parameters.*



*Spot checking convenience with the DM70 Hand-Held*







# Turbine Inlet Air

Accurate measurement of inlet air humidity is essential for better turbine control and improved performance. Vaisala's humidity monitoring helps the utility operator optimize the temperature and compression of the inlet air, maximizing output without risking condensation.

Click on the thumbnail below to view our product:



***HMT300TMK  
Turbine Mounting  
Kit for Power  
Turbine Intake Air  
Measurement***

TURBINE INLET AIR





# Hydrogen Cooled Generators

Achieve best yield by monitoring humidity and temperature of hydrogen cooled generators.

GENERATORS

Click on the thumbnail below to view our product:



*Our Intrinsically Safe humidity, dewpoint, and temperature HMT360 transmitters.*





# Weather & Energy

Utility companies and transmission system operators manage weather impacts daily. Lightning alone accounts for nearly half of transmission system events. In addition, the renewable energy industry uses wind, sun, and water as fuel and needs to assess resources and forecast energy availability to stay competitive. Learn how Vaisala can help you improve your transmission system operations, your development projects, and your renewable energy operations.

WEATHER & ENERGY

Click on the  
thumbnails to view:



***Weather Transmitter  
WXT530 Series***



***Nomad 3 Data Logger***



***Triton Wind Profiler***



***Wind Due Diligence  
Services***







# Maintain

Regular calibration ensures your high-precision instruments continue to provide accurate, high-quality data. Choosing the right calibration laboratory can be as important for lifetime accuracy and reliability as the initial selection of the instrument. Our high-performance calibration laboratories started in 1958 and we continually improve our technology, facilities and capabilities to provide the high quality and scope of services that you expect from Vaisala.

**VAISALA**

**Calibration Maintains and Documents Accuracy**  
Regular calibration protects against incremental sensor drift over time and verifies units are operating within the manufacturer's specifications.

**All Parameters Calibrated**  
Our global service centers calibrate all parameters and can meet your specific needs.

**Manufacturer Neutral**  
We provide calibration services for Vaisala products and other manufacturer's products for a variety of measurement parameters.

**Vaisala Calibration Service Centers**  
Calibrations for all parameters are available at each of our service centers. Our standard calibrations meet ISO9001 and are traceable to the SI through National Metrology Institutes such as NIST. Our accredited calibrations meet ISO/IEC 17025 for selected parameters.

Vancouver, Canada	Beijing, China	San Jose, Costa Rica	Beijing, China	Beijing, China	Beijing, China	Beijing, China
Relative Humidity	Relative Humidity	Relative Humidity	Relative Humidity	Relative Humidity	Relative Humidity	Relative Humidity
Temperature	Temperature	Temperature	Temperature	Temperature	Temperature	Temperature
Barometric Pressure	Barometric Pressure	Barometric Pressure	Barometric Pressure	Barometric Pressure	Barometric Pressure	Barometric Pressure
Carbon Dioxide	Carbon Dioxide	Carbon Dioxide	Carbon Dioxide	Carbon Dioxide	Carbon Dioxide	Carbon Dioxide
DC Voltage & Current						

**Vaisala Quality at Your Service**  
  
Vaisala has operated high performance calibration laboratories since 1958. We continually improve our technology, facilities and capabilities to provide the high quality and flexible service you expect from Vaisala.

**Confidence on Day 1, Confidence for Years**  
Identifying and setting calibration intervals are based on the application, product usage and the company's quality system. Our experts are ready to help with these important criteria.

Learn more and submit your calibration order at: [www.vaisala.com/calibration](http://www.vaisala.com/calibration)





# Watch

These short videos will take you on a virtual tour of the Vaisala Moisture, Hydrogen and Temperature Transmitter MHT410. Watch a real installation of the MHT410 into a live transformer, or see an overview of how our product works.

Scroll to the next page to watch our videos.

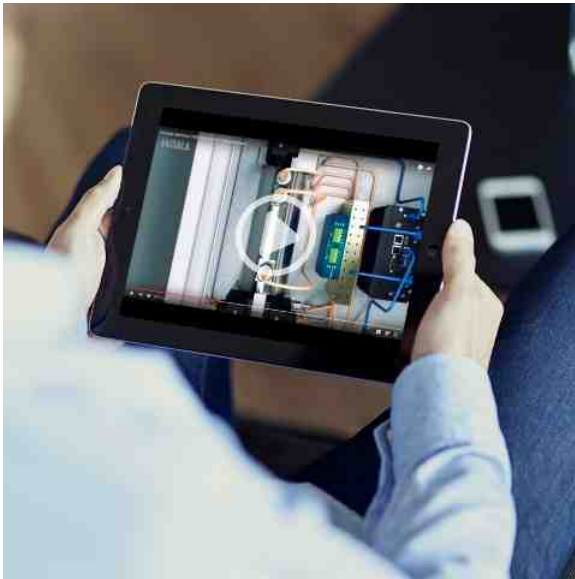




WATCH

# Videos

YOUTUBE CHANNEL

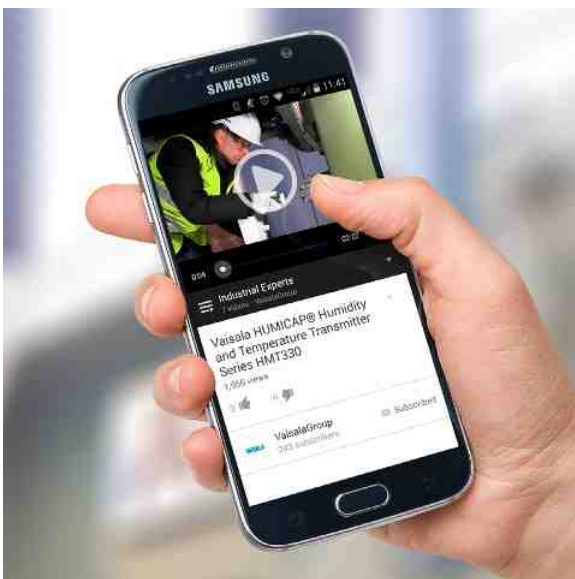


## Vaisala Optimus DGA Monitor for Transformers

The Vaisala Optimus™ DGA Monitor for Transformers solves many current problems in transformer maintenance.

## Vaisala MHT410 Moisture, Hydrogen and Temperature Transmitter

This video presents Vaisala's MHT410 Moisture, Hydrogen and Temperature Transmitter.



## MHT410 Installation Video

The MHT410 can easily be installed onto an operational transformer by one person in 30 minutes or less.





# Learn

Our free webinars are a great way to gain valuable knowledge about topics of interest.



## Moisture in Transformer Oil Behavior

Learn about moisture dynamics within a transformer

## Relative Saturation and Water Activity

What is it and how can you measure moisture in oil with it



[MORE WEBINARS](#)



# Inquire

Our team brings to our customers 100+ years of combined mechanical, chemical, electrical and computer engineering experience.

Vaisala engineers are on hand to assist you with your product or application questions.

CONTACT VAISALA



# VAISALA

## Outages Happen 24/7. So Should Monitoring.

[www.vaisala.com](http://www.vaisala.com)

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