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OptimusTM OPT100

Advanced online DGA monitor – Intelligent by design

What makes
the OPT100
truly different
from everything else
on the market today?



When we say no maintenance, we mean **no maintenance**. No consumables, service, or parts to replace over its entire 15+ year lifespan. Simple as that. Here's how the Optimus does it.

In designing the OPT100, we did away with gas cylinders, filter wheels, and other consumables that competing technologies rely on. The Optimus brings true, always-on monitoring to the game. So you can see more than a sampling-type spot check could, and uncover trends and gassing patterns.

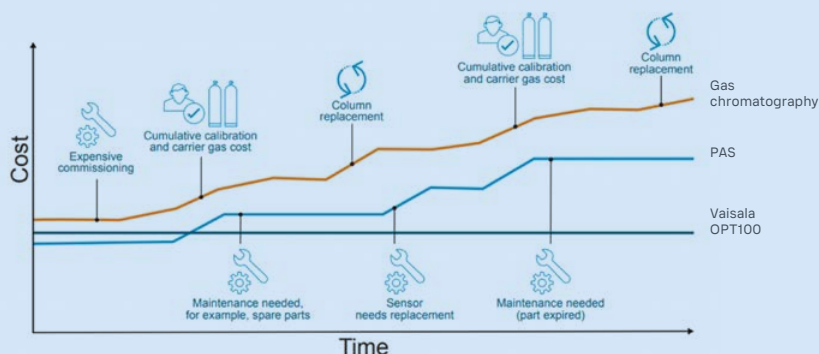
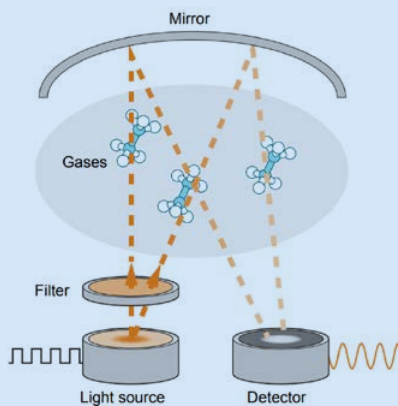
No maintenance, zero consumables.

NDIR Infrared – a superior solution for online DGA

Optical measurement technology by its nature only consists of a few non-moving parts. This brings multiple benefits. A simpler, more robust design. Minimal amount of components. And best of all, no parts to wear out or replace. Ever.

Solving the total cost of ownership dilemma

The true cost of online DGA monitoring comes from the amount of maintenance your solution needs. For a true IR device like the OPT100, the costs over time are negligible, as there is nothing to replace or change.



Intuitively easy to use

Installs in under two hours

The Optimus was made to install in under two hours. There's no need for manufacturer-certified technicians to install and program the device, or to revisit several days later for additional programming.

The web-based user interface guides you through the streamlined, step-by-step procedure. Once finished, you can walk away and let the Optimus do the rest.



Powerful User Interface

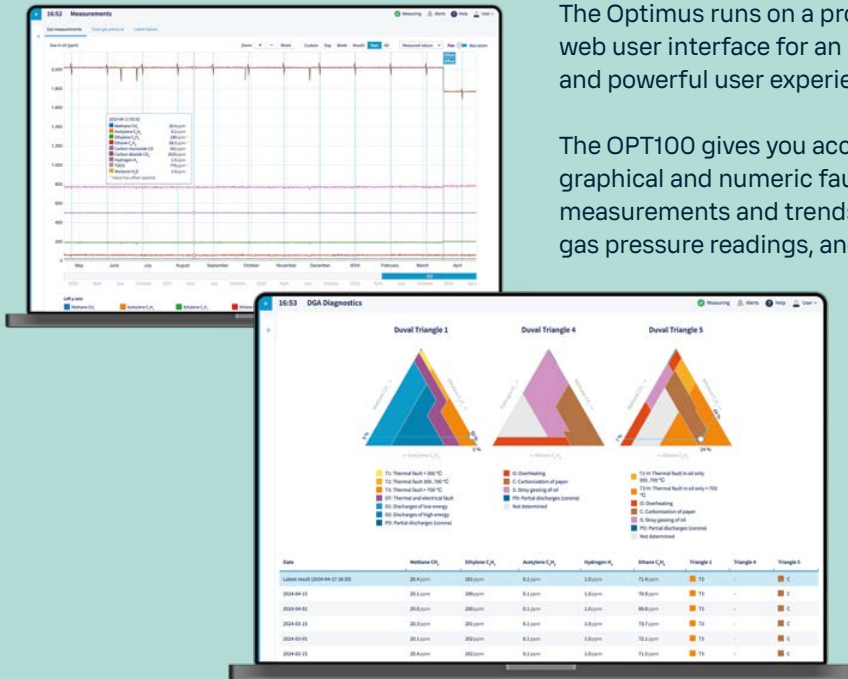
The Optimus runs on a proprietary web user interface for an intuitive and powerful user experience.

The OPT100 gives you access to graphical and numeric fault gas measurements and trends, total gas pressure readings, and even

DGA diagnostics tools such as Duval's triangles. Measurement data can be quickly exported in csv format for further analysis, and alerts and alert levels can be set and customized directly from the interface. What's more, no client-side software installation is needed.

Self-diagnostics guarantees your monitor is always at work

The Optimus's intelligent self-diagnostics start when the monitor is powered on and will automatically kick in should a power break happen. This ensures you will always know not just how your transformer is doing, but also how your monitor is doing.



Intelligent and robust design throughout



Robust mechanics for superior service life

Every single component of the Optimus was thoughtfully designed and carefully chosen with one goal in mind - to be the longest lasting, most rugged DGA on the planet.

Only the highest quality parts met our strict testing and qualification criteria **such as a magnetic pump, stainless steel piping, and top quality valves**. Its IR measurement unit is hermetically sealed to prevent contamination of its optics.

The monitor is housed in an IP66-rated enclosure to keep the elements out – and can be mounted using three different options: ground stand, fixed wall mount or vibration-dampened wall mount.

The Optimus runs cool by nature, and needs no cooling fans by design. In other words, another typical DGA monitor failure point has been entirely eliminated.

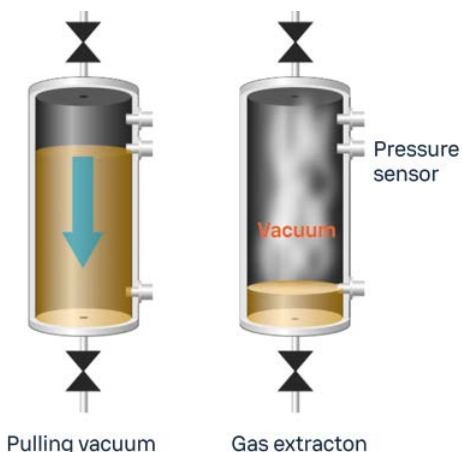
All 9 gases, measured from all ester liquids and mineral oils

The Optimus is available fully compliant with not just mineral oils, but also synthetic and natural esters. What's more, the optional O₂ + N₂ measurement, enhanced with Vaisala's Total Gas Pressure method gives you the most reliable leak detection on the market.

Vacuum gas extraction

Superior gas analysis starts with vacuum gas extraction, rather than the industry standard head space method, ensuring the best gas sample possible.

Up to **95 %**
of gases extracted



Scan for video

IR reference measurement eliminates drift

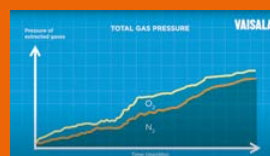
Drift-causing elements in the monitor itself are eliminated by measuring the actual strength of the IR signal during every measurement cycle. Completely eliminating such drift also eliminates costly false alarms and unnecessary transformer maintenance.



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Total gas pressure reliably detects air and oxygen leaking in

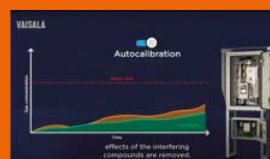
TGP will reliably detect the ingress of oxygen into sealed transformers even if an oxygen-consuming reaction has taken place. This helps maximize your transformer's operational life.



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Autocalibration eliminates effects of aging insulation liquids

When a transformer's insulation liquids age, volatile compounds are formed, which can cause interference with actual fault gases. Autocalibration detects and eliminates their effect, ensuring your DGA results are always reliable.



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Vaisala –
90 years at
the forefront
in demanding
measurements

Founded
1936
Helsinki



2,400
experts
in science &
technology

Sensors
designed and
manufactured
in our own
cleanroom

12% R&D
investment

Currently
operating on
two
planets

