

The Optimus Experience

Vaisala Optimus™ DGA Monitor for Transformers is one of the newcomers that joined Vaisala offering this year. In addition to being reliable with no false alarms and durable due to high-quality components, it is additionally easy to install. We went to meet our engineers to get a first-hand account of how easy it actually is and hear how the journey has been so far.

In the deep end of the production line, we have four important hosts waiting for us. We are happy to introduce Product Area Manager **Pasi Isakkala**, Product Manager **Teemu Hanninen** and Mechanical Engineer **Riku Rantala** – and of course the star, Vaisala Optimus™ OPT100 DGA Monitor for Transformers, which is also known as Optimus among friends.

Safe, Smooth and Simple

The safe and easy installation of Optimus starts with the design. The instrument consists of two separate units. The lower and smaller is the lifeline of Optimus, the power unit. The bigger measurement unit above is the brains and can be easily and safely installed, since there is no danger from electricity.

There are a few ways to install Optimus. “You can either bolt it to a wall on the side of a transformer, or on the ground,” summarizes Teemu. When Optimus is in place, the oil pipes from the transformer need to be arranged to lead in and out of Optimus, guiding the oil samples through the measurement unit.

In most cases, when Vaisala personnel have entered the installation

site, customers have already done the pre-installation. “All our customers have been amazed of how easy it is to set up the instrument with the help of our manual, and the feedback has been solely positive. As the product is still new, we just want to be there to ensure that everything goes smoothly, listening to the customer needs and also learning ourselves about the possible challenges along the way,” says Pasi.

Optimus vents its pipes and itself which is a differentiating factor, simplifying and speeding up the installation process. Once the customer has

the product all set up and ready, it is just a matter of commissioning and calibration.

The interface guides the user through the commissioning program by providing instructions in each step before Optimus starts the measurements. First results are available after a few hours, and final accuracy is achieved after two days, once the calibration is complete. Optimus takes samples continuously approximately once per hour, and the results can be monitored through Vaisala’s user-friendly interface: all you need is a PC and a browser.

The installation takes about a few hours, overall. “The feedback we have gotten concerning the installation has been nothing but positive. When we get on-site to finalize the installation, customers’ reactions have been along the lines ‘was that it’,” concludes Pasi.

With the Customer, for the Customer

Although the product is extremely easy to install, Vaisala personnel plans to accompany customers during the installation also in the





near future. “Optimus is so easy to install that our customers are well capable of putting it up themselves. Nonetheless, it is still early days and we have moved forward with a customer-focus from the beginning, so we still want to help them in the installations, learning how they wish to work with the instrument and improving their installation experience,” explains Teemu.

Going customer first, the OPT100 is a model of new agile and iterative product development, where the product is boldly taken to the market while being developed further based on the experiences and feedback. “We have learnt a lot ourselves during the R&D phase as well as the installations. Now that Optimus has customers all over the world, covering almost every continent, we have gathered information from varying situations and environments,” tells Teemu.

So what kind of environments have our engineers faced? Cities are common locations for transformers

but also a hydroelectric power plant outside of a city in South America counts among Optimus’ sites. So far the coldest installation location has been Northern Finland, and California and South Africa count among the hottest. Optimus itself doesn’t mind – it has demonstrated its reliability in versatile conditions.

Overall, the whole process has proved to be a prime example of the power of collaboration, as Pasi exemplifies: “The Optimus™ OPT100 DGA Monitor is a product of exceptional co-operation not only cross-organizationally in Vaisala but also internationally together with customers.” The agile collaboration and pilots with customers have borne fruits as well; many have been so happy with the product that they have ordered more Optimus monitors.

