

# EASY ON-LINE PD MEASUREMENTS AND MONITORING





Our new MONTESTO 200 combines on-line partial discharge (PD) measurements and temporary PD monitoring into one portable system. Frank Zokoll, MONTESTO 200 Product Manager and Head of our PD Services Team, describes what makes the system so easy to set up and use in the field on various electrical assets.

#### **Meeting customer requirements**

“In the past, we received one critical piece of feedback from customers: Even though they considered PD monitoring beneficial for trending insulation conditions in their electrical assets, system installation and data analysis were often too complicated and time-consuming for many users,” explains Frank. “In addition, customers wanted a system that is more flexible for short-term and long-term use on multiple assets, rather than investing in multiple systems,” he adds. “That is when we decided to develop a portable on-line PD measurement and monitoring system that is easier to install and use on various assets in the field.”

#### **One system for various assets**

“MONTESTO 200 is compact and lightweight, making it easy to transport from one asset to another for both on-line PD measurements and temporary monitoring,” Frank describes. “It includes all the necessary connection cables in a wheeled case with a built-in work surface.” ▶

*«MONTESTO 200 is connected to pre-installed PD sensors via a terminal box **for easy on-line PD measurements.**»*



**Frank Zokoll**  
Product Manager,  
OMICRON



*«The user-friendly software simplifies system setup, PD data analysis and reporting.»*

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Product Manager, OMICRON

“MONTESTO 200 is IP65 rated, so it can be used both indoors and outdoors on various medium-voltage and high-voltage electrical assets under load, including motors and generators, power transformers and power cables. This versatility makes it possible for you to only invest in one system for assessing the insulation condition status of electrical assets throughout a utility or industrial plant.”

#### **Plug-and-play connections**

“MONTESTO 200 is designed to be used with a variety of PD measurement sensors, including coupling capacitors, bushing tap sensors, UHF sensors, and high-frequency current transformers,” says Frank. “These PD measurement sensors are permanently installed and connected to a specially-designed terminal box, which is also permanently installed and grounded at the asset.”

“Whenever you want to perform PD measurements or temporary

PD monitoring on the asset, you simply connect MONTESTO 200 to the terminal box. This enables you to make safe and convenient plug-and-play connections while the asset is on line to avoid unnecessary downtime during setup.”

#### **Easy on-site PD measurements**

“MONTESTO 200 can be powered using either AC power from a wall socket or by a universal 12-volt DC battery,” Frank describes. “It performs multi-channel PD measurements to gather more details for a reliable analysis. The system’s wide measurement frequency range can be freely adjusted using a laptop or tablet to ensure an optimal signal-to-noise ratio. PD measurement data streams can also be recorded and replayed later for a detailed analysis.”

#### **Remote monitoring setup and data access**

“For temporary PD monitoring, MONTESTO 200 can easily be mounted to a surface on or near the asset

using the mounting brackets or magnets that are included with it. You can simply connect it to the terminal box and leave it unattended.”

#### **Built-in computer**

“MONTESTO 200 features a built-in computer that makes long-term data collection and archiving possible,” he adds. “With the system’s convenient web interface, you can access this computer from any remote location to set up monitoring sessions or view the collected PD data. You can also configure the system to automatically send email alarm notifications when PD levels exceed user-defined thresholds.”

#### **User-friendly software**

“The user-friendly MONTESTO 200 software simplifies system setup, PD data analysis and reporting. Unique software features, such as 3PAR (3-Phase Amplitude Relation Diagram) and Automatic Cluster Separation, automatically separate noise from PD signals to help

you quickly and reliably determine the signal source.” Frank adds, “Data from third-party sensors can also be easily integrated for correlation with the PD data.”

#### Various application areas

“Asset manufacturers, service companies, as well as maintenance teams at utilities and industrial sites will appreciate the versatility of MONTESTO 200. For example, the two-in-one PD testing and temporary monitoring solution can easily be used to clarify asset insulation issues during warranty periods and to periodically check the insulation condition during an asset’s service life. MONTESTO 200 will also help users to observe assets at risk over extended periods of time and to plan maintenance and investments based on asset condition,” Frank concludes. ■



## MONTESTO 200

- › On-line PD measurement and temporary monitoring
- › For use on various electrical assets
- › IP65 rated for outdoor use
- › Built-in computer for long-term data collection
- › User-friendly data analysis and reporting

 [www.omicronenergy.com/montesto200](http://www.omicronenergy.com/montesto200)

# LONG-TERM CONVENIENCE

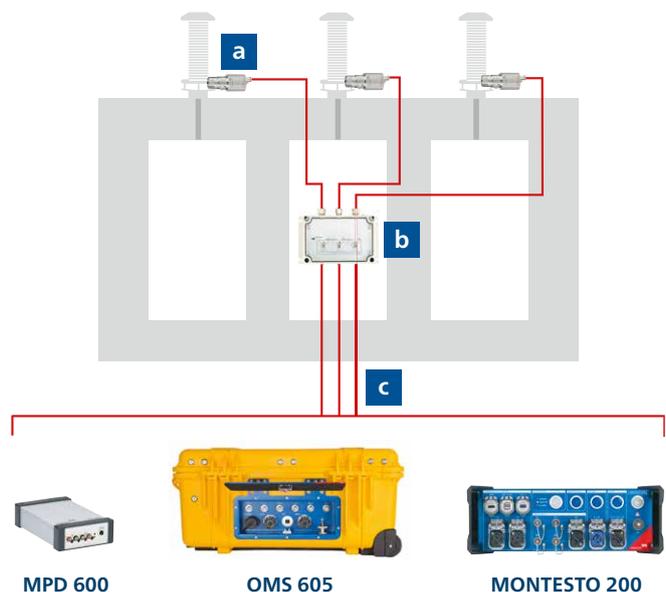
## New CPL 844 bushing sensor for on-line PD measurements and monitoring

The CPL 844 is a bushing sensor designed for long-term, permanent installation at the test taps of transformer bushings. With its built-in protection circuits, the CPL 844 enables you to safely perform on-line partial discharge (PD) measurements and monitoring during transformer operation without having to schedule an outage.



#### Safe and easy connections

One CPL 844 sensor is connected to each transformer bushing test tap with a bushing tap adapter to match the specific test tap design. These taps are connected to a terminal box that is installed at a convenient height on the transformer tank. The terminal box allows you to make convenient plug-and-play connections with the PD measurement device, such as our MPD 600, OMS 605 or new MONTESTO 200.



The CPL 844 permanent installation kit includes: a) three CPL 844 sensors and adapters, b) one terminal box and c) three TCN triaxial cables with pre-installed connections.