

# Online PD handheld scanner to avoid expensive outages in MV and HV plants

- Universal application range, thanks to a variety of sensors
- For a quick assessment of the condition of the switchgear and cables
- Increases occupational safety in plants as potential risks can be detected before the beginning of work
- Full documentation thanks to integrated camera, QR code scanner and temperature and humidity sensor



## Avoid partial discharge problems with a smile

Defects in medium and high voltage systems not only require costly repairs, but also can lead to failures of entire network sections with corresponding consequences. Therefore, it is in the interest of all network operators to recognize signs of impending defects as early as possible and to be able to take appropriate countermeasures on time.

With the PD Scan, Megger offers a lightweight, robust and portable PD scanner that can quickly inspect various type of equipment for partial discharge signals.

Smiley faces will give you feedback about the condition of the asset.



### *5 good reasons*

why you should perform Online PD measurements on MV plants with the PD Scan from Megger:

- 1** PD activity is an indicator of emerging defects in insulation and accessories
- 2** Common offline PD measurements on the cable only check the cable; possible failures at the switchgear remain uncovered
- 3** Offline PD measurements on switchgear means a complete shutdown of the station
- 4** Permanent online PD monitoring is currently still too expensive
- 5** Switchgear can be tested under normal operating conditions and no outage is required



# Universal application range thanks to a variety of sensors

## Wide range of applications

Thanks to the variety of sensors, the PD Scan can be used for a wide variety of applications. Primarily, the device was developed to determine the condition of MV-switchgear, for which purpose internal and external sensors are available. If, for example, you have encapsulated switchgear, the acoustic contact probe sensor is the best choice. For air-insulated switchgear, the acoustic sensors are the best way to go.

Secondly, the PD Scan can also be used for PD detection in medium voltage cables. This permits you to get a quick overview of the condition of the cables and offline PD measurements can thereafter be scheduled. For this purpose, the detachable HFCT sensor simply has to be connected around the earth screen of the cable and connected to the device.

Even outdoors, the PD Scan is a useful tool, with the help of the parabolic acoustic receiver with integrated laser pointer, MV and HV components can be precisely checked for surface discharges and corona. In addition the Bluetooth® headphones facilitate the work considerably as no cables can twist.

## Say goodbye to maloperation

One of the goals of the development of this handy device was to minimize the number of connections. All in all, there are only two interfaces on the device that are responsible for everything. This was made possible thanks to the smart auto-recognition of the connected sensors. Faulty measurements due to operator error are a thing of the past.



*5 external  
sensors*



## Intuitive operation, just like a smartphone

Not only does the auto-recognition of the sensors simplify the handling of the device, the end user will also be pleased about the simplicity of operation and presentation of the measurement results.

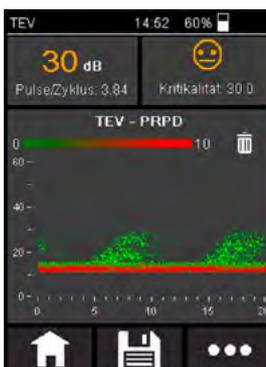
The PD Scan can be operated intuitively via both soft-keys and touchscreen.

Using functions such as short or long press on the display enables shortcuts within the software and saves the user from bothersome browsing through the individual menus. The user can fully concentrate on the more important measuring!

### If the condition is okay, you will see a smile



The user is also supported with the presentation of the measurement results. Measurement data is evaluated automatically, and feedback about the condition of the asset is provided visually by means of a smiley face and other ways. If the customer wishes other trending limits for the interpretation of the data, this can simply be individually customized.



An indispensable function of the device is the phase pattern representation, so-called PRPD pattern. By means of this view, the user can clearly identify whether the measured data is due to partial discharges or simply noise – a big but decisive difference.



## Did you know?

It is often forgotten that temperature and humidity can have a significant impact on the partial discharge activity. It is therefore essential that a temperature and humidity measurement must be made for each single measurement. We have simplified this for you. Simply connect the temperature and humidity sensor to the PD Scan (it is included with the delivery of the unit), then press "store measurement data" and you are done.



### Pictures speak louder than words

Nothing is nicer than when you have everything with you. Once defects have been identified with the PD Scan, then pictures can be taken using the unit's integrated camera. Thus, all data is securely stored in one location and can easily be included in the final report.

In addition to the image capturing functionality, the camera can also be used as a QR code scanner. This functionality saves on-the-spot tedious renaming of folders as switchgear data can be taken over directly.



### Simple but detailed

Nowadays, test reports are indispensable, either as evidence for the utility or as a measurement report from a service provider. The included MeggerBook RE software gives you the full flexibility in report establishment. Detailed reports can be made in the blink of an eye. Measured data can be displayed in clear, tabular formats and images taken with the built-in camera (or from other locations) can easily be added to it and commented on.

Megger. PD SCAN

Temperature

11:19

66%



Temperature 15°C  
Humidity 30%



## Application-based sets

The PD Scan will be available in 4 different application-based sets:

### **Set 1: Switchgear basic**

The PD Scan Basic Set includes the main unit which has two internal sensors (TEV, acoustic). In addition, it includes an external TEV sensor for localizing partial discharges and a temperature and humidity sensor.

### **Set 2: Switchgear basic + cable**

This kit also includes a HFCT sensor for online PD measurements on the cable.

### **Set 3: Switchgear pro + cable**

In addition to Set 2, this set includes an acoustic contact probe sensor, which is ideal for online PD measurements on enclosed switchgear, and a flexible acoustic sensor for simple indoor acoustic measurements along seams, gaps and small openings.

### **Set 4: Switchgear pro + cable + outdoor**

In addition to set 3, a parabolic acoustic receiver with laser pointer is included, which is ideal for outdoor use such as surveying of HV components for surface and corona discharges.



# Product training!

In addition to the function checker, which enables you to check the TEV functionality of the device and is included with the unit, Megger also offers a demonstrator box.

This tool allows the user to demonstrate the full functionality of the device. All measuring methods can be applied using this box, and PD level and pulses per cycle can be adjusted independently of each other. The PD Scan Demo Box is therefore the ideal tool for internal product trainings within industries, such as power utilities.



MV and HV plants



Includes camera  
and QR code scanner



Outdoor



Cable



Watch the video

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