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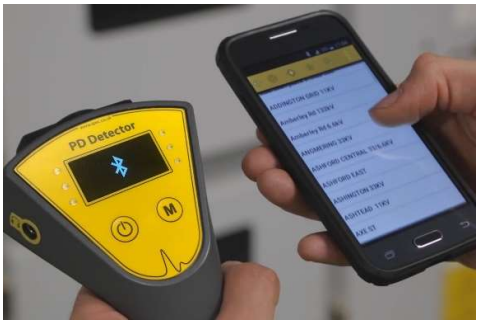
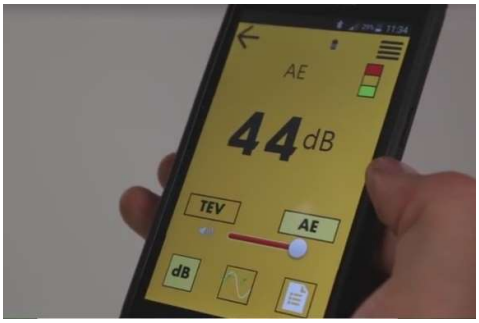
PD Detector

Switchgear PD Detector with Data Synchronisation





Key Features

- Data synchronisation to central server and sync with any other PD Detector system
- Log and trend PD activity against particular assets
- Automatic data integration with SAP (upon request)
- Integrated Noise Detection Algorithm helps avoid 'False Positives'

TEV PD Detection

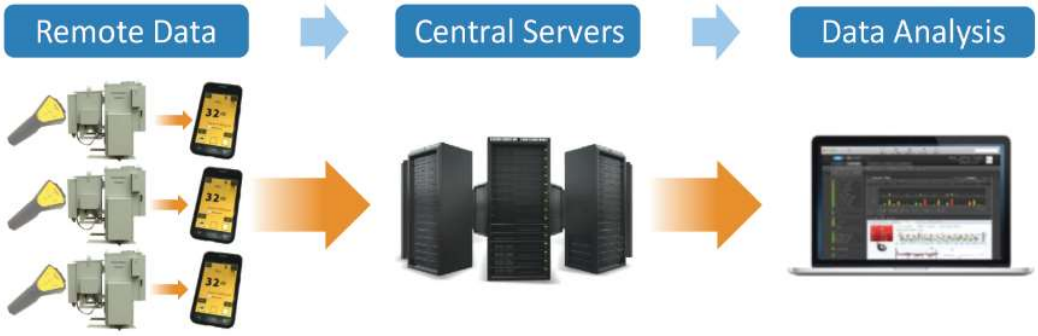
Partial Discharge activity inside metal clad high voltage plant induces small voltage impulses called Transient Earth Voltages on the surface of the metal panels. TEVs travel around the surface to the outside of the switchgear, where they can be picked up externally using the PD Detector.

Ultrasonic PD Detection

Defects on the surface of high voltage insulators are prone to a phenomenon known as surface tracking. Tracking causes carbon deposits that build up over time, ultimately leading to flashover and insulation failure. The PD Detector is highly sensitive to the ultrasonic emissions produced by tracking and enable the onset to be detected before insulation failure.

The Benefits

- **Rapidly survey whole substation** – detects MV and HV problems before develop into tangible failure risks
- **Remote Data Storage** – Ensure all data is recorded from each site test
- **Trend** – Log the PD against individual assets and view data from each test ever conducted
- **Advanced Noise Rejection** – System detects PD in higher noise environments, reducing the possibility false positives
- **PRPD** – PRPD display allows user to distinguish between PD and Noise



Technical Specification

PD Detector

TEV Measurements	
Sensor	Capacitive
Measurement Range	0 to 80 dBmV
Measurement Bandwidth	3 to 440MHz
Resolution	1 dB
Accuracy	±1 dB
Noise Rejection	Yes, with PRPD
Min Pulse Rate	≥ 10 Hz
Ultrasonic Measurements	
Measurement Range	-6dBµV to + 70dBµV
Resolution	1 dB
Accuracy	±1 dB
Transducer Sensitivity	-65dB (0dB = 1volt/µbar RMS SPL)
Transducer Centre Frequency	40 kHz
Transducer Diameter	16 mm
Heterodyning Frequency	40 kHz
Hardware	
Enclosure	Injection moulded plastic case
Control	Membrane keypad
Connectors	Power, Headphones and External Acoustic Sensor
Display	OLED with level LEDs
Operating Environment	
Operating Temperature	-20°C to 60°C
Humidity	0 - 95% RH non-condensing
IP Rating	54
Application	
Communication	Bluetooth
Data Storage	Customer Server
Data Access	Web front end, SAP, Oracle, etc.
Capability	Android
Reporting	Yes
Results	dB, PRPD, Noise
Dimensions	
Unit Size	190 x 90 x 55 mm
Unit Weight	210 g
Kit Size	295 x 340 x 145 mm
Kit Weight	2.9 kg
Power	
Internal Battery	Lithium Ion, 3.75V, 2.2Ah, 8.25Wh
Operating Time Approx.	5 hours
Battery Charger	
Charging Temperature	0°C to 45°C
Rated Voltage	100 to 250 VAC, 5V, 3A
Frequency	47 to 63Hz
Country Adapters	UK, EU, Australia, USA
Charge time	3 hours
Safety and EMC	CE-compliant in accordance with Low Voltage Directive (2014/35/EU) and EMC Directive (2014/30/EU)
Designed and manufactured in the United Kingdom	

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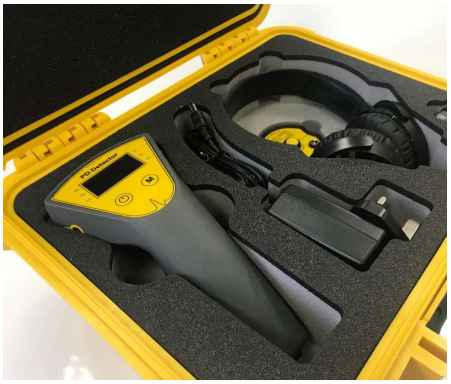

The PD Detector kit contains
PD Detector
Headphones
Function Tester
Mains Charger
USB Charger
Hard wearing PELI™ case