

PD-SGS Blue

Switchgear PD Detector with Data Synchronisation

About the PD-SGS Blue

PD-SGS Blue has the following key features:

- Data synchronisation to central server
- Log and trend PD activity against particular assets
- Automatic data integration with SAP
- Automatic high PD alerts to asset management team live from site
- 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-SGS Blue detector.

AE - 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-SGS Blue is highly sensitive to the ultrasonic emissions produced by tracking and enable the on-set to be detected before insulation failure.



The Benefits:

- **Rapidly survey whole substation** – detects MV and HV problems before they occur
- **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, no more false positives



What's in the Box?

The PD-SGS Blue kit contains:

- PD-SGS Blue
- Android™ Mobile Phone
- Headphones
- Mains charger and USB car charger
- Function Tester
- Hard wearing PELI™ case



Detailed Specification

1. TEV Measurements
 - Sensor Capacitive
 - Measurement Range 0 to 80 dBmV
 - Resolution 1 dB
 - Accuracy ±1 dB
 - Noise Rejection ? Yes, In built noise rejection algorithm
2. 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
3. Communication and Storage
 - Comms Bluetooth
 - Storage Customer Server
 - Data Access Web front end, SAP, Oracle etc
4. Hardware
 - Enclosure Injection moulded plastic case
 - Control Membrane keypad
 - Connectors Power, Headphones and External Acoustic Sensor
5. Environmental
 - Operating Temp 5°C to 55°C
 - Humidity 0 to 90% RH non-condensing
 - IP Rating 42
6. Dimensions
 - Size 190 x 90 x 65
 - Weight 300g
7. Power
 - Internal Battery Lithium Ion, 3.75V, 2.2Ah
 - Operating Time Approx. 8 hours
8. Battery Charger
 - Rated Voltage 90 to 264 V AC, 5V, 2.6A
 - Frequency 47 to 63Hz
 - Charge time 2 hours