



Portable Partial Discharge Monitor

PNX-UPM

Our Partial Discharge Monitoring Box is a multichannel, PD monitoring system to integrate upto 09 UHF sensors. This next generation system is equipped with AI driven fault detection to determine the type of fault with more accuracy than legacy partial discharge monitors paired with higher sensitivity and wider dynamic range hardware provides accurate, reliable and reproducible measurements even under the most difficult environmental conditions.



PNX-UPM is an advanced Partial Discharge (PD) monitoring module that utilizes Ultra High Frequency (UHF) technology for accurate signal acquisition and analysis. It supports 4 or 8 channels in two configurations, enabling connection with an equal number of UHF PD sensors. The system is compatible with sensors operating within the 300 MHz to 2000 MHz frequency range, ensuring seamless integration across various monitoring setups.

Designed for reliability, the PNX-UPM monitors and analyses UHF signals generated by PD activity in critical electrical assets such as Transformers, GIS Circuit Breakers, Switchgear - GIS, MV Panel and Power Cables. It classifies signals into internal PD, external PD, or noise, delivering precise diagnostics. Internal PD data is stored and processed for advanced analyses, including Phase Resolved Partial Discharge (PRPD) patterns, amplitude, discharge rate, and trend evaluations.

Features

- Simultaneous PD acquisition
- High Sampling Rate
- High PD sensitivity
- Wide acquisition bandwidth
- User-selectable noise filtering
- Seamlessly integrates with software
- Protocol Compatibility

Benefits

- Seamless System Compatibility
- Advanced Data Logging & Analytics
- Customizable meet customers specific requirement
- Accurate PD detection with noise gating
- Reliable and Robust Design

Applications

- Routine substation walk-through inspections.
- Gas Insulated Switchgear troubleshooting.
- Cable termination spot checking.
- Emergency asset field diagnostics.
- Industrial plant maintenance audits.

Technical Specification

Number of Channels	Upto 128 UHF Channels
Sampling Rate	360 points per cycle
Acquisition Bandwidth	300MHz-2000MHz
PD Sensitivity	-10 dBm to -65 dBm
Noise Elimination	User selectable 4 UHF Band Pass Filters 300-575MHz 440-575 MHz 300-1100MHz 1100-2000MHz
Data Storage (Memory)	Factory Configured SSD Storage Upto 1TB (64GB as standard)
Compatible PD Sensors	Any Ultra High Frequency (UHF) PD Sensors with bandwidth 300MHz-2000MHz
Synchronization Inputs	2 Inputs (LV and HV) LV: 5Vpeak 100 Vrms- 240 Vrms
Operating Temperature	-30°C to +50°C
Storage Temperature	-40°C to +85°C
Humidity	95% Non-Condensing
Communication Protocols	IEC61850, Modbus, TCP/IP, DNP3, MQTT