

PD211 - Rugged Partial Discharge Monitoring UHF Module for OEMs



- Rugged, Compact Design with multiple mounting options - Din-Rail, Direct
- 4 or 8 Synchronous Input Channels for monitoring Partial Discharge
- Monitors Partial Discharge into the Insulation of MV/HV assets
- Best in class EMI, ESD Immunity
- Modbus (Serial-RS485) and Canbus integration with third party systems
- Advance noise gating with built-in filters and software algorithms
- Built-In Fail Safe Relay for System Failure

Rugged design, designed for reliability, UHF PD monitor for OEMs (Original Equipment Manufacturers) with advance and simple integration features to third party systems/gateways.

Product Summary

The Rugged Monitoring PD211 is a compact design, designed for reliability Partial Discharge (PD) Monitoring Module for Transformers, Switchgears, GIS and Power Cable Terminations. The PD211 is based on the UHF (Ultra High Frequency) technology for PD signal acquisition and analysis. The PD211 Monitor combines reliability and user friendly configuration software. It has two variants, 04 channel and 08 channels, that can connect to 4 and 8 UHF-PD sensors respectively. The system can be integrated with any UHF PD sensors that are having response between 100Mhz to 2000MHz.

The PD211 connects to the UHF PD sensors installed at the MV/HV assets. It measures the Ultra High Frequency (UHF) signals emitted by the PD Faults in HV/MV assets. The UHF signals are then analyzed for PD activity and categorization of Internal PD, External PD and Noise Signals. Internal PD signals are captured and stored for further analysis such as PRPD, PD Amplitude, Discharge Rate, and trending. The PD amplitude and discharge rate is sent to the third party system via Modbus (RTU) protocol using built-in serial (RS-485) port. The PRPD data is stored into the module and also sent to third party system via CANBUS protocol using built-in CAN port. There is a dedicated team of experts available for customizing partial discharge monitoring solutions to meet specific customer needs.

Applications

- Online continuous partial discharge monitoring
- Online PD measurement during HV AC testing
- Multiple point PD monitoring
- PD Monitoring in Transformer using UHF PD Sensors
- PD Monitoring in GIS using UHF PD Sensors
- PD Monitoring in MV Switchgear using UHF PD Sensors
- PD Monitoring in Power Cables Terminations UHF PD Sensors

Benefits

- Suitable for OEM-type applications (TMS, Gateways)
- Multiple mounting options - Din-Rail and Direct (Bare-board)
- Cost optimized solution for Partial Discharge monitoring
- Software designed for integration into monitoring systems / gateways
- Robust datalogging and Analytics
- Customizable according to customer specific applications
- Most accurate PD analysis with advanced noise gating
- Highly robust and safe monitoring systems

TECHNICAL SPECIFICATIONS

Number of Channels	04 or 08 (Simultaneous acquisition, No Multiplexing)
Sampling Rate	100 MS/s per channel
Acquisition Bandwidth	300Mhz - 2000Mhz
Vertical Resolution	12-Bit
PD Sensitivity	-80dBm
Noise Elimination	
- Bad Pass Filters	Tunable for different frequencies including but not limited to 440Mhz, 800Mhz, 1100Mhz, and 1600Mhz
- Software Noise Gating	Advanced denoising algorithms
Data Storage (Memory)	MicroSD external memory slot (Up to 2 TB)
Compatible PD Sensors	Any Ultra High Frequency (UHF) PD Sensors with sensitivity 100Mhz - 2000MHz.
Synchronization Inputs	2 Inputs (Internal and External)
Serial Port	RS-485 with Modbus RTU and Can Port with CANBUS protocol
Configuration Port	Ethernet Port for configuration
Operating Temperature	-30 to 75 °C
Storage Temperature	-40 to 85 °C
Dimensions	4.92" x 4.92" x 1.89" (125mm x 125mm x 48mm)
Humidity	95% Non Condensing
Power Input	12 - 24V DC (Default)
Power Consumption	15W
# of Relays Outputs	01 x Fail Safe Relay for System Failure

ORDERING CODE



Number of Channels

04 = 4 Channels;

08 = 8 Channels

P D 2 1 1 -

M x Memory

0 = No Internal Memory

1 = for 64GB Memory

2 = for 128GB Memory

3 = for 256GB Memory

4 = for 512GB Memory



Rugged Monitoring Services

Rugged Monitoring provides customization of sensors, monitors & software. In addition we offer on-site commissioning services, maintenance contracts and technical support to all customers worldwide.



About Rugged Monitoring

Industry leading team of fiber optic experts with 100+ years of combined experience committed to delivering customizable solutions for challenging applications. We offer a range of reliable, high performance, customizable sensors and monitoring solutions that are immune to external influence.

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