

PD201

Rugged Partial Discharge Monitoring Module for OEMs



The Rugged Monitoring PD201 is a compact design, designed for reliability Partial Discharge (PD) Monitoring Module for Transformers, Switchgears, Power Cables and Rotating Machines.

PD201 combines accuracy and easy to use software. It has two variants, 04 channel and 08 channels, that can connect to 4 and 8 PD sensors respectively. The system can be integrated with wide range of PD sensors such as HFCT, TEV, Bushing Adaptors, Capacitive Couplers, Acoustic, and Ultrasonic PD sensors.

The PD201 connects to the HF PD sensors installed at the MV/HV assets. It measures the High Frequency (HF) signals emitted by the PD Faults in HV/MV assets. The HF signals are then analyzed for PD activity and Module categorizes pulses as 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, discharge rate, PRPD are sent to the third-party system via Modbus (RTU) protocol using built-in serial (RS-485) port or TCP/IP over RJ45. The data is stored in the module and sent to thirdparty system via IEC61850, MQTT, DNP3.

Module is equipped with powerful webserver packed with all features for a standalone monitoring. Together with communication protocols, modules offers amplitude, discharge rate and PRPD data over MQTT, Modbus, IEC61850 and DNP3. PD Live gives enriched user expeience with high resolution trends, PRPD, and waveform graphs.

Applications

- Online continuous partial discharge monitoring
- Online PD measurement during HV AC testing
- Multiple point PD monitoring
- PD Monitoring in Transformer using Bushing Adaptors/Sensors
- PD Monitoring in Dry Type Transformers
- PD Monitoring in MV Switchgear using TEV / HFCT
- PD Monitoring in Power Cables using HFCT
- PD Monitoring in Generators and Motors using Capacitive Couplers and HFCT

Features

- 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
- RS-485 with Modbus RTU
- Advance noise gating with built-in filters and software algorithms
- Built-In Fail Safe Relay for System Failure

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	4 or 8 Channels
Sampling Rate	125 MS/s per channel
Acquisition Bandwidth	1kHz - 50MHz
Vertical Resolution	14-Bit (0-50V)
Memory (eMMC)	64GB/128GB Fixed
Memory (uSD)	upto 64GB
Compatible PD Sensors	Any High Frequency (HF) PD Sensors (Bushing Adaptors, HFCT, TEV, Capacitive Couplers, Acoustic, Ultrasonic etc.)
Synchronization Inputs	AC Zero - Crossing SyncA: 1 channel, 16 Bit (0-100Vrms), 2Ms/s, Dc - 1kHz
Sync Input Voltage	SyncA channel can be used for voltage measurement
Serial Port	RS-485 with Modbus RTU
Configuration Port	Ethernet Port for configuration (RJ45)
Operating Temperature	-30 to 70 °C
Storage Temperature	-40 to 85 °C
Dimensions	180.00 mm x 161.05 mm x 60.00 mm
Humidity	95% Non Condensing
Power Input	24V
Power Consumption	25W

Ordering Code

