# TransMAX 2000

## Transformer Monitoring System with Partial Discharge Analysis

MADE BY AN AMERICAN COMPANY FOR OVER 25 YEARS

**Transformer bushing failures sometimes occur outside the capacitive layers, where traditional analysis of leakage currents may not give indication of an internal problem.**

**When the utmost in transformer reliability is required for critical transformer assets, partial discharge detection must be part of the monitoring strategy. The TransMAX 2000 performs all the test methods of the ZVCM-1001m and also monitors for partial discharge (PD). The PD activity in the bushings is monitored in parallel with the power factor calculations.**




**PD is detected using the same bushing sensors as with the ZVCM-1001m. PD attributes and external noise signals are determined by sophisticated mathematical analyses and no Rogowski Coils are used.**

**PD is caused by defective insulation in high-stress areas, movement of energized parts, or design errors where low-level discharges occur. Some types of PD may not present a problem, but others can develop into surface tracking or insulation failure, which can lead to bushing or transformer failure. The TransMAX 2000 also has the unique capability of monitoring GIC events and trends which potentially could damage the transformer.**

**Easy-to-use MultiTool software works with both the TransMAX 2000 and ZVCM-1000m.**

FM APPROVALS PROJECT NO: PR464633

# Condition Monitoring Equipment | Transformer Monitoring | Bushing Defect

*Class II Monitoring System per FM 6510*

FM APPROVED

## TransMAX 2000
## On-Line Transformer Monitoring System with Partial Discharge Analysis Capability
## FM24FPUS0043X

| | |
|---|---|
| **Power Supply and Input Voltage Range** | 85-264 Volts AC/DC |
| **Operating Temperature Range** | -55°C to +55°C |
| **No of Channels** | 3 or 6 |
| **Leakage Current Measurement Range** | 0.5 to 140 mA |
| **Leakage Current Accuracy** | ±1.5% of reading |
| **Capacitance Measurement Range** | 100 to 3000 pF |
| **Power Factor Measurement Range** | 0 to 15% PF |
| **Phase Angle of Imbalance Current Range** | 0 to 360° |
| **Partial Discharge [PD] Frequency Level** | High Frequency (HF) <20 MHz |
| **PD Resolution** | 1.0° |
| **Time Resolution** | 10 nS |
| **Dynamic Range** | 65 dB |
| **PD Amplitude Detection Range** | 0.02 to 50 nC (±5V) |
| **Output Port** | RS-485, Ethernet, USB |
| **Software** | ZTZ Multi Tool, TraMoS |
| **SCADA** | MODBUS TCP or DNP over Ethernet |






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