

G50 PERMANENT SHORTED TURN ANALYSIS SYSTEM



Generatortech's G50 System advances the technology of monitoring the health of generator field windings with a permanent connection to your generators. The G50 provides accurate real-time monitoring for continuous or periodic recording of flux probe data for evaluation of rotor winding shorted turn conditions.

GENERAL DESCRIPTION

- Software and hardware specifically designed to acquire and analyze waveforms generated by the electromagnetic flux in the generator air-gap. The software provides accurate indications of rotor winding shorted turn conditions, including coil and slot identification and number of turn shorts. Data is acquired while the generator is on-line and at speed. The software acquires and analyzes data **automatically** and/or **manually** and is also accessible using a remote connection via secure VPN.
- Software will acquire data from all permanent and temporary radial flux probes regardless of manufacturer.
- Up to four generators can be monitored simultaneously.

CONTINUOUS MONITORING/REAL-TIME REMOTE ACCESS

- Generatortech's G50 monitors the rotor for shorted turns 24 hours/day. The G50 can be accessed via a secure VPN connection to the Internet or company intranet.

AUTOMATED DATA RECORDING

- The newest version of Generatortech's Data Acquisition and Analysis program acquires and instantaneously analyzes data. The program automatically saves flux probe data at timed intervals and/or at optimum load points. Saved data can be reviewed later at a convenient time. The need for late night testing operations and travel to distant stations is eliminated.

TIME AND MONEY SAVINGS

- The need to schedule generator load level changes specifically to capture the optimum load points for analysis can often be eliminated with the G50. Since the G50 is always connected, data can be captured during normal cycling operations of the generator avoiding the loss of revenue and occasional difficulties associated with requesting load changes from the system operator.

GENERATORTECH, INC.

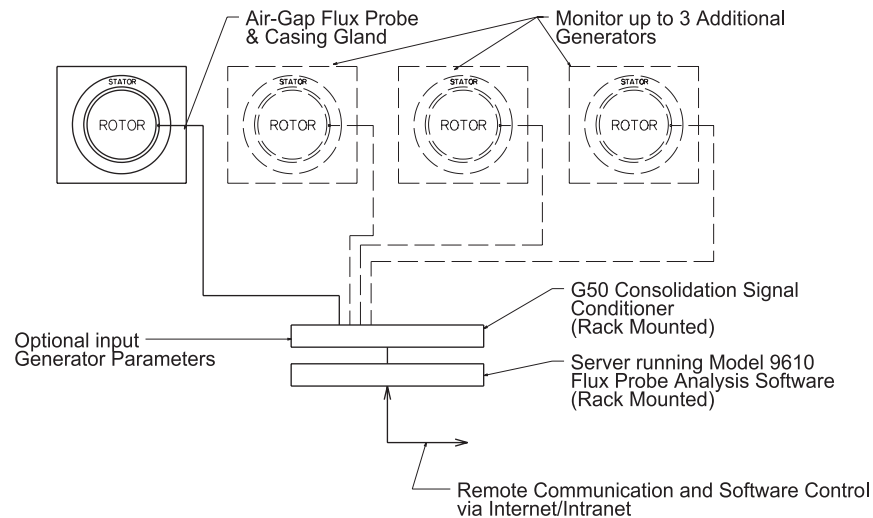
support@generatortech.com

phone +1.518.399.4646 fax +1.518.399.7562

104 Newman Road, Schenectady, New York USA 12302-9517



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Generatortech G50 Flux Probe Monitoring System

SOFTWARE

- Modules are available for 2-pole and 4-pole round rotors and salient pole rotors; 50 or 60 Hz

SIGNAL PROCESSING

- 19 inch x 3.5 inch rack mounted chassis
- High speed digitizer; 120,000 samples per second acquisition
- Analog to digital conversion
- Raw signal conditioning for optimizing data quality
- Pole identification available with a once per revolution signal
- **Automatic** and/or **Manual** data acquisition
- Four round rotor generators can be monitored simultaneously or six salient pole generators

APPLICATION SERVER

- Rack mounted with the consolidated signal conditioner in a secure central location
- Windows Server operating system pre-loaded
- Generatortech Data Acquisition and Analysis System pre-loaded

CONNECTIONS

- Up to 5000 feet coax for connection from flux probe connection gland to signal conditioner.
- Optional 4-20 milliamp connection for input of generator operating conditions
- 120/240 VAC power supply

REQUIREMENTS

- Permanent air-gap radial flux probe installed in the generator
- Two open, adjacent (over-under) rack slots for server and signal conditioner
- Ethernet connection to the Internet with a dedicated IP address and a firewall device allowing a VPN connection (optional)

SERVICES

- Includes training and lifetime phone consultations