

# System for Detection of Excitation Winding Shorted Turns in Hydro Generator

## KONČAR HG-WFD

The TG-WFD system performs analysis of magnetic field in the machine air gap. Based on the patent-pending solution for differential measurement of magnetic field, the system provides users with information on potential shorted turn in real-time. HG-WFD system allows a better asset management and reliable monitoring of the machine.



### System Features

- On-line analysis
- Winding fault detection
- Fault location enabled with key phasor
- Data storage
- Better asset management
- Reduces potential damage costs

### HG-WFD system functions

- Operates with classical fault detection theory and with new patent-pending solution for winding shorted turns fault detection
- Long-term data preview for all excitation winding coils
- Local and remote data access
- Upgradeable system for various monitoring parameters

TG-WFD system specification	
Architecture	High speed data acquisition unit with the real time controller and local visualization
Inputs and outputs	Voltage inputs (for magnetic flux and key phasor measurement) Ethernet interface
Digital outputs	Local client and remote application
Data logging	Database for long-term events and data logging
Supported protocols	Modbus, EtherCAT
Power supply	100 V AC - 240 V AC, 24 V DC
Design	Case for a portable version, painted steel (IP54) for permanent installations
Operating temperature	0 to +65 °C
Standards compliance	EMC immunity/emission (EN 61000-6-2/EN 61000-6-4) Vibration/shock resistance (EN 60068-2-6/EN 60068-2-27/29)

### Services

- System installation and commissioning
- Staff training
- Expert interpretation of the acquired data

### Client application



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