



HPS 1600 -- MONITORING SOLUTION FOR HYDRO TURBINE

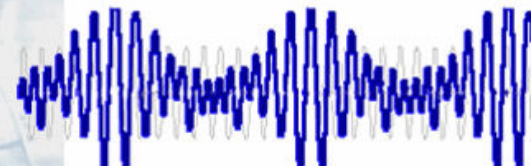
**Extend
the LIFE of your
Turbine Generator**



MAJOR BENEFITS

- * **Continuous Monitoring**
 - Delamination of stator end winding
 - shorts between windings
 - Sudden temperature rise
- * **Easy Installation**
 - 5 minutes per sensor
- * **Experimental Mode**
 - trying various sensor locations for the best signal
- * **16 sensors monitor 1 turbine**
- * **Measure vibration of end stator winding**
- * **Measure direct displacement**
- * **Auto Calibration**
- * **Sensor**
 - Works up to 100°C
(special orders for higher temperature)
 - Immune to EMI
 - Long Life (> 25 years)
 - Small Size
 - Light Weight (2g with encapsulation)
 - Sealed from dust and oil

HIGH SENSITIVITY LONG DISTANCE SENSING



FEATURES

- * 16 Sensor ports
 - any combination of Vibration and temperature sensors
- * 16 analog output, one for each sensor
- * Continuous monitoring mode to build test database
 - test data are time stamped, saved as text and wave files
- * Real time signal analyses
- * Offline signal analysis
- * Factory calibrated sensors
- * On site auto calibration
- * Trending of Vibration and temperature
- * Automated signal conditioning filter
- * Single test mode for best sensor location
- * Automatic, multilevel warning system
- * Composite fibre cable eases installation
 - can be up to 50 meters long,
 - connecting the Interrogation Unit to junction box close to the turbine
- * 16 individual sensor cables link from the junction boxes to locations on the turbine, forming a star network

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SPECIFICATIONS

Number of Turbines	1
Maximum Number of Channels	16 (Scanning)
Analog Voltage Output*	16 ($\pm 5V$, 50 Ω impedance)
Maximum Sampling Rate	48KHz (Normally set at 6KHz)
Signal Frequency Range	20Hz to 2,000Hz
Conversion Factor	Displacement Up to 80mv/micron
Composite cable from unit to junction box	8 with another 4 spares, up to 50m long
Junction box	8 FC/APC connectors
Sensor Cable Length	3m, 6m, 9m
Operation Environmental Humidity	Up to 95%
Operation Temperature (system unit)	5°C to 45°C
Operation Temperature (sensor head)	Up to 100°C
Supply Voltage	100V to 240V
Dimensions	440mm (W) x 132.50mm (H) x 340mm (D)
Weight	5Kg

* No analog output for temperature sensor.

