

## NEW CAPACISENSE 5 SERIES TURBINE BLADE CLEARANCE & VIBRATION MONITORING SYSTEM LAUNCHED LIVE AT TURBO EXPO 2009

*Features new advanced electronics package and software*

At **ASME Turbo Expo, Florida (June 2009)** Tyco Thermal Controls showcased its new 5 Series CapaciSense blade tip clearance and vibration monitoring system for gas turbines, featuring an advanced electronics package and software.

Visitors to the Tyco booth had the opportunity to witness a live demonstration of the new system technology, receiving a live feed in Florida from a spin rig in the UK plus data that has been recorded from a site.



CapaciSense 5 Series has been developed to help operators increase uptime / power output by giving them more accurate real time data from which to decide when a maintenance outage is required. Capacitive sensors have progressed well beyond experimental and scientific projects and are providing industrial solutions with major benefits for users in the aerospace and power generation industries. Capable of monitoring gas turbine engines in operation, CapaciSense sensors deliver real time data on compressor and turbine blade-tip clearance measurements, rotor shaft and disc displacement. With its 400 kHz bandwidth, the 5 Series also allows tip timing measurements to be performed for blade vibration monitoring.

CapaciSense high temperature clearance measurement systems accurately monitor a wide range of clearances within modern gas turbine engines. These systems have a patented capacitive sensor design that can be used with AM or FM electronics and are capable of withstanding tip temperatures up to 2550DegF (1400C). Using advanced electronic processing, CapaciSense will output real-time, high accuracy, blade-clearance and blade deflection information and can be configured to assist with engine condition monitoring, blade vibration and rotodynamic measurements.

Technical Manager, Paul Seccombe, who was present at Turbo Expo explained:

“What the 5 Series offers is a step change of the technology into something that is more easily installed and offers real time blade clearance and vibration data for condition monitoring.”