

CHARACTERISATION OF MULTI PARAMETER SENSOR FOR AERO ENGINE

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Abstract

A multi parameter sensor (Pressure and Temperature) has been developed for use in the harsh environment during aero engine testing. The sensor will be subjected to extreme environmental changes from room temperature and pressure to negative temperature and pressure within a small span of time. It is also very difficult to choose a category of micro behaviors to be characterized among the so many associated with its performance. The multi parameter sensor presented in this paper has been characterized for accuracy, linearity, drift, hysteresis, repeatability, offset and time response. The sensor is intended for applications in the developmental aero engine testing. The evaluation of the performance characteristics carried out in this work is chosen with reference to aero engine testing requirements.

Keywords: Multi Parameter Sensor, Pressure and Temperature Measurements, Aero Engine Measurements, Characterisation of the Sensor