Kulite Gas Turbine Transducer Applications

**PROPELLION / ENGINE**
- Engine Oil, Absolute Pressure
- Engine Oil, Gauge Pressure
- Oil Filter Delta Pressure
- Fuel Pump Pressure
- Fuel Filter Delta Pressure
- P1 Total Air Absolute Pressure
- P2 Compressor Inlet Air Pressure
- P2.5 Intermediate Air Pressure
- P3 Compressor Discharge Air
- P5 Engine Exhaust Air Pressure
- P125 Fan Air Pressure
- Compressor Air Bleed Plenum
- Turbine Cooling Air Pressure
- Transmission Oil Pressure - Turboshaft
- Engine Torque Pressure - Turboshaft
- Redundant Oil Pressure
- Redundant Fuel Pressure
- Redundant Fuel Filter Delta Pressure
- Redundant Pressure and Temperature
- Starter Air Valve Redundant Pressure
- Exhaust Air Pressure

**TURBINE TEST / DEVELOPMENT**
- Small Size, High Frequency Transducers
- Acoustics/Noise Sensors
- Airfoil Flutter/Vibration Measurements
- Surface Mount Sensors (Flat Packs)
- Ultra-High Temperature Pressure Sensors
- Combustion instability Measurement
- Augmentor Screech and Humming Sensors
- DC and AC Dual Output Transducers
- G-Inertial Pressure Transducers
- Ultra High G-Load Applications
- High Accuracy Amplified or Unamplified
- Digitally Compensated Transducers
- Active Engine Control Transducers
- Semi-Infinite-Tube Transducers (SIT)
- Pitot-Static Pressure Probes
- Wireless Output Pressure Sensors

**AUXILIARY POWER UNITS (APU)**
- Main Oil Pressure
- P1 Total Air Pressure
- P3 Compressor Discharge Pressure
- Filter Differential Pressure
- Exhaust Air Pressure

**Combination / Multi-Function / Redundant**
- Multiple Absolute and Delta Pressures
- Pressure and Temperature (RTD)
- Pressure and Pressure Switch Combo
- Multiple Redundant Combos

**POWER GENERATION TURBINES**
- Air and Fuel Pressures
- Compressor Discharge Pressure
- Turbine Differential Pressure
- Triplex Redundant Transducers
- Combination Absolute and Differential
- Combustion Instability Transducer
- CSA and SIRA Certifiable

**TECHNOLOGY / RESEARCH**
- Small Size Sensors (1.5mm Diameter)
- High Frequency Response
- Airfoil Surface Pressures (Flat Packs)
- Pitot-Static Pressure Probes
- Ultra High Temperature (Cooled and Uncooled)
- Flow Angle Probes
- Semi-Infinite Tube Transducers (SIT)
- Active Flow Control Applications
- Ultra High g-Load Applications
- CSA and SIRA Certifiable

Kulite Turbine Pressure Transducers
Product reliability in the most severe environment

Kulite Semiconductor Products, Inc. is recognized worldwide as The Leader in Pressure Transducers, Sensors and Transmitters supporting almost every major aircraft propulsion program. The unique piezoresistive sensor coupled with the lightweight package concept is the ideal product of choice for the Gas Turbine engineer looking to reduce weight, increase reliability and fulfill the need for higher accuracy while meeting cost objectives.

Kulite silicon sensor advantages:
- High frequency response
- Excellent long term stability
- Media compatibility
- Negligible non-linearity and hysteresis
- Custom accuracy < 0.1%
- Ruggedized to application
- Excellent repeatability
- High temperature capability +1025°F (550°C)
- Digital and/or analog output
- Static/Dynamic outputs

Kulite transducer technology has demonstrated for over 50 years that it is a superior product necessary to meet the stringent requirements for aerospace and ground pressure measurement applications.
Aircraft Engine Sensors Military Applications

- Pressure Measurements
- Dual Pressure, Dual Temperature
- Oil Dual Delta Pressure
- Temperature Measurements
- Pressure/Temperature Measurements
- Fuel Dual Delta Pressure
- Triple Pressure
- Delta Pressure
- Quadruple Pressure

Photography and Illustration Courtesy of the Engine Alliance

This drawing is for illustration purposes only and indicates areas where Kulite Transducers have been installed on an aircraft engine.
Test Sensors

Kulite is the leader in supplying transducers to the aircraft engine industry, providing sensor solutions for laboratory research, engine development testing, flight quality engine measurements and various Turbine Engine measurements for Commercial, Military and Power Generation applications. Please consult your nearest Kulite Sales Office for your particular application and visit our web site for additional information. www.kulite.com.