Aerospace/Space Pressure Transducers

Pressure transducers are found in many aerospace and space applications. PMC-STS, Inc. piezoresistive sensors are incorporated into a lightweight package, which has proven to be an ideal product choice for the aircraft engineer seeking to reduce weight, increase reliability, and fulfill the need for higher accuracy while meeting cost objectives. Typical applications include ground support, auxiliary power units, hydraulics, engine, and environmental control systems. Custom engineered products are our specialty. Our team of expert engineers have been designing and developing sensors for more than 40 years.

Precision Pressure Transducers

- Engine Oil Pressure
- Oil Filter Pressure
- Fuel Pump Pressure
- Total Air Absolute Pressure
- Compressor Inlet Air Pressure
- Compressor Discharge Air
- Engine Exhaust Gas Pressure
- Fan Pressure
- Compressor Air Bleed Pressure
- Turbine Cooling Air Pressure
- · Oil Pressure
- Engine Torque Pressure
- Redundant Pressure Monitoring
- Landing Gear Hydraulic Pressure
- Hydraulic Control Surfaces Pressure

Auxiliary Power Units (APU)

- Main Oil Pressure
- Total Air Pressure
- Compressor Discharge Pressure
- Filter Differential Pressure
- Exhaust Air Pressure

Multi-Function

- Multiple Absolute and Delta-P Pressure and Temperature (RTD)
- Pressure and Pressure Switch Combo
- Combination Pressure/ Temperature Sensors

Test and Measurement

- Barometric Pressure Sensors
- High Static Pressure Sensors
- Ultra-High G-Load Applications
- High Accuracy Amplified or Unamplified Digitally Compensated Transducers
- Engine Control Transducers
- Air Data Sensors
- Pitot-Static Pressure Probes

Research

- Miniature Pressure Sensors
- High Frequency Response











AEROSPACE APPLICATIONS



Satellites



Drones

atemies



Jet Engines

Fuel Tanks



Propulsion Systems



General Aerospace



Explore more product offerings at:

www.pmc1.com

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PMC-STS, Inc. adopts a continuous development program which sometimes necessitates specification changes without notice.



AEROSPACE SENSOR EXPERTS

Sensors for Launch and Space Vehicles, Drones, Satellites, Jet Engines, and General Aerospace

COMPANY INTRODUCTION

PMC-STS, Inc. is an innovative supplier of pressure measurement devices integrating American ingenuity and Swiss precision. We seek to partner with our customers to provide advanced solutions to meet their technical and commercial needs. Our manufacturing facility in Switzerland maintains state-of-the-art production equipment and a ISO-9001 accredited quality system. PMC-STS' facility in Danbury, Connecticut has been producing high quality pressure sensors since 1963.



AEROSPACE/SPACE

PMC-STS, Inc. has been supporting the space exploration, satellites, and launch vehicle community since 2000. Our experience has resulted in the development of numerous innovative pressure measurement devices, which are designed for precision performance under demanding requirements.

There are several challenging applications for launch vehicles including tank pressure, liquid fuel, combustion, chamber pressure, ullage, and pressure measurement for stage separation. PMC-STS provides unsurpassed quality and reliability and is a perfect fit for your space exploration programs.

PMC-STS pressure transducers are ideal for both ground and flight test applications and environments. The core technology is a piezoresistive silicon miniature sensing element, which is based on development since 1987. These transducers are suitable for a wide range of aerospace applications, including, engine, flight test, drones, missiles, and space exploration.

MINIATURE PRECISION PRESSURE SENSORS

ML1000



High Performance **Ground Applications**

Features

0-1 to 0-10,000 psi 0.01% Precision 0.83 inches/3.5 ounces (typ.) -40 to 185F: <±0.25% of Span -40 to 257F: <±0.6% of Span

ML2000



Flight Qualified **Miniature**

Features

0-15 psi to 0-6.000 psi 0.01% Precision 0.83 inches/2.1 ounces (typ.) -40 to 185F: <±0.25% of Span -40 to 257F: <±0.6% of Span ML3000



Flight Qualified Miniature

Features

0-15 psi to 0-6.000 psi 0.01% Precision 0.55 inches/0.7 ounces (typ.) -40 to 185F: <±0.25% of Span -40 to 257F: <±0.6% of Span

ATM Mini



Precision Pressure

Features

0-1 to 0-6,000 psi 0.01% Precision 0.69 inches/1.9 ounces (typ.) 0.5% FS (typ.)



ATM 1st/T

Combination Pressure/Temperature Pressure/Temperature

Features

0-1 to 0-1500 psi -58°F to +300°F Pressure: <±0.25% FS Temperature: <±0.8°F

ML5100



Combination

Features

0-75 to 0-6000 psi -40 to 300°F (Ambient) -60 to 300°F (Media) Pressure: <±0.25% FS Temperature: <±0.8°F

TS100



Amplified Temperature

Features

-65° to 300°F PT100 or PT1000 4-20mA or 0-5/10Vdc

MT1000



Miniature **Temperature**

Features

-20 to 300°F Accuracy: Based on Technology PT1000 or NTC

PT100 & PT1000 NTC, K- & T- Type thermocouples offered

DUAL OUTPUT PRESSURE AND TEMPERATURE SENSORS



OEM Pressure Transducers

Features

TD Series

Passive mV Output Fast Response 0-1 to 0-20,000 psi

DP2000

PIEZORESISTIVE SILICON TECHNOLOGY

The extremely small size of these devices has made them

applications in aerospace industry research and development.

uniquely suited to a wide array of test and production



Differential Pressure

Features

Wet/Wet Applications 0-1 to 0-600 psid 1000 psi Line Pressure

ATM.1st



OTHER MEASURANDS AND CUSTOM SENSORS

Static Accuracy 0.05% Total Error Band < 0.2%

MPL Series



High Accuracy **Pressure**

Features

0-1 to 0-20,000 psi

Position

Features

Ranges Up to 12 Inches High Reliability Quad-Contact Technology

Linear

OPERATING TEMPERATURE RANGE

PMC-STS transducers are designed to operate and maintain accuracy over the temperature range appropriate for the application. Most types are suitable for the traditional aviation range of -65°F to 300°F (-54°C to 150°C) storage. Operating and compensated temperature ranges can be customized to meet your specific requirements.

INPUT/OUTPUT

Passive transducers with ratiometric input/output of 10mv/V are available in most configurations. Amplified Analog outputs up to 10Vdc or 4-20mA from supply voltages from 5Vdc to 32Vdc. Digital outputs are available as custom configurations. Dual outputs for pressure and temperature are available on some configurations.

SPECIAL FEATURES

PMC-STS transducers are designed for operation in high vibration applications of 100g or more and tested to more than 1 million cycles. Testing follows MIL-STD-810 methods. Special materials of construction are used to minimize outgassing and withstand exposure to radiation. Most configurations include hermetically sealed enclosures.