



## 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

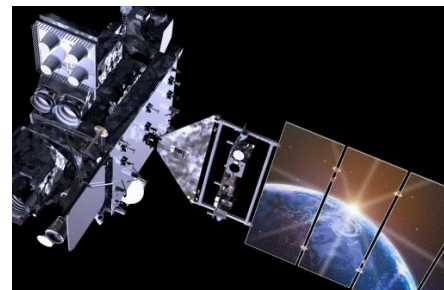
- Barometric Pressure Sensors
- High Static Pressure Sensors
- Ultra-High G-Load Applications
- High Accuracy Amplified or Unamplified Digitally Compensated Transducers
- Engine Control Transducers
- Air Data Sensors
- Pitot-Static Pressure Probes

### Research

- Miniature Pressure Sensors
- High Frequency Response



## AEROSPACE APPLICATIONS



Satellites



Jet Engines



Propulsion Systems



Drones



Fuel Tanks



General Aerospace



Explore more product offerings at:

[www.pmc1.com](http://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

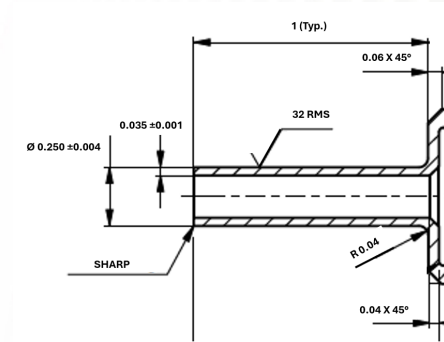
PMC-STS, Inc. is an innovative supplier of pressure measurement devices integrating American ingenuity and Swiss precision. We seek to partner with our customers to provide advanced solutions to meet their technical and commercial needs. Our manufacturing facility in Switzerland maintains state-of-the-art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



## AEROSPACE/SPACE

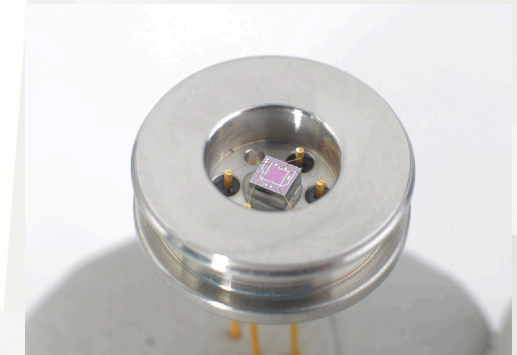
PMC-STS, Inc. has been supporting the space exploration, satellites, and launch vehicle community since 2000. Our experience has resulted in the development of numerous innovative pressure measurement devices, which are designed for precision performance under demanding requirements.

There are several challenging applications for launch vehicles including tank pressure, liquid fuel, combustion, chamber pressure, ullage, and pressure measurement for stage separation. We offer features and options to suit the most demanding applications. PMC-STS provides unsurpassed quality and reliability and is a perfect fit for your space exploration programs. Where permanent, hermetic sealing is required, PMC-STS offers a weldable stub tube process connection (See photo and drawing).



## PIEZORESISTIVE SILICON TECHNOLOGY

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. The extremely small size of these devices has made them uniquely suited to a wide array of test and production applications in aerospace industry research and development.



## 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: <math>\pm 0.25\%</math> of Span  
-40 to 257F: <math>\pm 0.6\%</math> 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: <math>\pm 0.25\%</math> of Span  
-40 to 257F: <math>\pm 0.6\%</math> 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: <math>\pm 0.25\%</math> of Span  
-40 to 257F: <math>\pm 0.6\%</math> 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.)

## 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.

## DUAL OUTPUT PRESSURE AND TEMPERATURE SENSORS

ATM 1ST/T



**Combination Pressure/Temperature**

### Features

0-1 to 0-1500 psi  
-58°F to +300°F  
Pressure: <math>\pm 0.25\%</math> FS  
Temperature: <math>\pm 0.8^\circ\text{F}</math>

ML5100



**Combination Pressure/Temperature**

### Features

0-75 to 0-6000 psi  
-40 to 300°F (Ambient)  
-60 to 300°F (Media)  
Pressure: <math>\pm 0.25\%</math> FS  
Temperature: <math>\pm 0.8^\circ\text{F}</math>

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

## 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.

## OTHER MEASURANDS AND CUSTOM SENSORS

TD SERIES



**OEM Pressure Transducers**

### Features

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

DP2000



**Differential Pressure**

### Features

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

ATM.1ST



**High Accuracy Pressure**

### Features

0-1 to 0-20,000 psi  
Static Accuracy 0.05%  
Total Error Band <math>< 0.2\%</math>

MPL SERIES



**Linear Position**

### Features

Ranges Up to 12 Inches  
High Reliability  
Quad-Contact Technology

## 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.