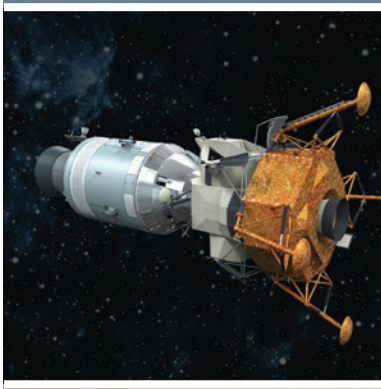
TABER® INDUSTRIES

# High-Performance Pressure Transducers

**ENGINEERED FOR QUALITY AND RELIABILITY**



716.694.4000 TOLL FREE 800.333.5300
TaberTransducer.com

MADE IN USA

455 Bryant Street,
North Tonawanda, NY 14120

# Engineered for Success.

*When you need a manufacturer that will meet your specifications—and exceed your expectations—choose Taber. Our pressure transducers are built to the highest standard of quality, and are engineered and manufactured to perform reliably even in the most hostile environments.*

## Certifications

- AS 9100
- ISO 9001
- Solder certified to IPC-J-STD-001 and IPC-J-STD-001 Space Addendum
- Compliant to AWS D17.1 welding standards

## Calibrations

- NIST traceable calibration equipment
- 11-point calibration
- Custom calibrations available

## Performance

- Compensated temperature ranges of -450°F to +70°F or +70°F to +400°F
- Static Accuracy ±0.150% to ±0.300% Full Scale Output (FSO)
- Burst pressures greater than 2.5x maximum expected operating pressure (MEOP)
- Leak rate of $1x10^{-8}$ scc/sec He, improved rate compared to the industry standard $1x10^{-6}$ scc/sec He

# When Reliability Matters Most.

*The most demanding industries depend on Taber pressure transducers for their most critical applications.*

## Aerospace, Military and Defense

- Rocket Engine Fuel Control
- Rocket Engine Thrust Tests
- Rocket Engine Diagnostics Tests
- Fuel Monitoring Systems
- Hydraulic Actuator Tests
- Air Oxygen Systems
- Ground Support Testing
- Cargo Deployment Systems
- Flight Control Systems
- Jet Engine Test Stands
- Jet Fuel Systems
- Air Oxygen Systems
- Iron Bird Testing
- Landing Gear Systems
- Flight Control Tests
- Missile Thrust Tests
- Pressure Vessel Testing
- Fuel Storage and Delivery Systems
- Government Laboratory Research and Development

## Commercial and Industrial

- Boiler Feed Pump Monitoring
- Wind Turbine Monitoring
- Steam Turbine Monitoring
- Pressure and Temperature Monitoring
- Fuel and Hydraulic Filtration Systems
- Reactor Feed Pump Monitoring
- Pond Tank Pressure Levels
- Compressors
- Drilling Rigs
- Drilling Mud Systems
- Gas Transfer Instrumentation
- Pipeline Integrity Monitoring
- Valve Positioning
- Marine Loading Equipment
- Downhole Tools
- Groundwater
- Steel/Aluminum Rolling Mill Hydraulic Presses
- Hydraulic Fluid Pressure Measurement
- Water and Wastewater Treatment
- Compressors
- Pulp and Paper Processing
- Dispensing Systems Monitoring
- Food and Dairy Processing
- Subsea Separation and Reinjection Systems
- Oil Recovery Systems

## Oceanographic

- Manned Submersibles
- Remotely Operated Underwater Vehicles
- Depth Sensors
- Deep Submergence Vehicles
- Dredge Boats
- Underwater Mining
- Mine Detection
- Oil Platforms
- Subsea Trenching

# The Taber® Standard.

*From the depths of the sea to the surface of Mars, you will find Taber pressure transducers in some of the harshest environments in the universe. As the space industry's pressure transducer of choice, we've earned NASA's trust through our work on the Apollo, Space Shuttle and Orion programs, along with many others. We have continued to build on experience since 1955 to provide engineered solutions for mission-critical applications around the globe.*

## *Why do the most demanding industries trust Taber?*

**RELIABILITY**
Our bonded foil strain gage pressure transducers perform with high accuracy and little to no drift over long periods of time.

**QUALITY**
From design and manufacturing to testing and calibration, Taber is 100% vertically integrated, which allows us to manage every step of the process.

**ENGINEERED**
We design to meet your custom specifications.

At Taber, we consistently outperform the industry standards to give you what you really need—pressure transducers specifically engineered for the most extreme environments.

**NASA'S ORION SPACECRAFT**

# Focus on Quality.

*The designers, engineers, assemblers and calibration technicians at Taber Industries all work closely together and are committed to providing customers with quality products and services that continually meet customer expectations and requirements. Taber strives to consistently deliver exceptional results and enhance customer satisfaction through the continual improvement of our Quality Management System.*

## Advanced Manufacturing

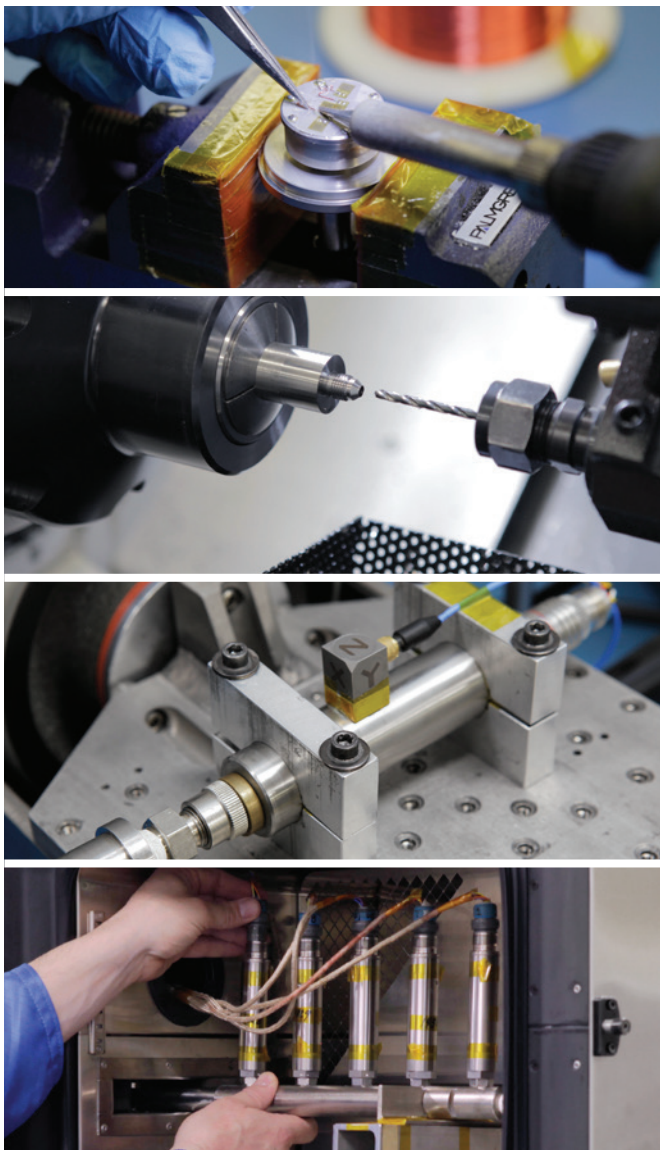
Producing high-precision transducers requires an array of sophisticated machining and assembly equipment. At Taber, we have an in-house machine shop, a team of manufacturing engineers, and specialized mechanical and electronic manufacturing assembly departments. From CNC mills to stereoscopic microscopes to TIG welders, we have the right tools—and the right people—to manufacture the right transducers for your application.

## Testing and Inspection

The goal of test and inspection is to confirm that your transducer will perform as expected. Our test and inspection capabilities include random and sine vibration testing, shock testing, thermal cycling, thermal vacuum testing, cryogenic testing, helium bomb leak testing, precision cleaning per IEST-STD-CC1246 standards, radiographic inspection per ASTM E1742, dye penetrant inspection per ASTM E1417, and electromagnetic interference testing (EMI/EMC) per MIL-STD-461 and/or RTCA DO-160.

## Calibration

Taber's standard calibration includes an 11-point pressure run at ambient temperature, as well as the recording of zero and full-scale signal output values at multiple temperature limits. From these values, our calibration technicians calculate static error band (static accuracy) and total error band (static accuracy including temperatures). With NIST traceable calibrated equipment and other highly specialized tools, our calibration team ensures that you can trust your pressure transducer data.



***TABER IS A WORLD LEADER IN THE MANUFACTURING OF RELIABLE AND HIGH-QUALITY PRESSURE TRANSDUCERS.***

*If your pressure transducer requires a special electrical connector, material, pressure range, temperature compensation, calibration, accuracy, cable length, or other requirement, please* ***contact a Taber Sales Engineer*** *who will assist you in designing a pressure transducer for your unique application.*

# Technology at a Glance.

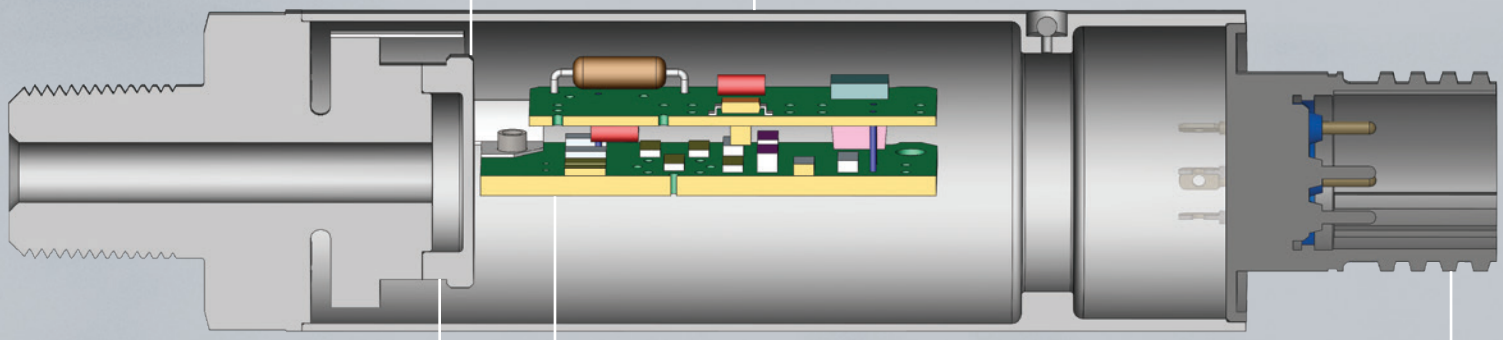
*A pressure transducer is an electromechanical device that converts the mechanical force of pressure into a proportional analog electric signal. This analog signal, in conjunction with a data acquisition system, lets you accurately measure the applied pressure.*

### STRAIN GAGE

*The strain gage converts pressure into a change in electrical resistance. Taber's bonded foil strain gages are wired in a Wheatstone bridge configuration and designed to withstand, extreme environmental conditions.*

### BODY

*The Taber precision machined body holds the electronic circuit board and wiring associated with the transducer configuration. Various construction materials, diameters and external features can be selected based on application needs and mounting methods.*



### SENSING ELEMENT (DIAPHRAGM)

*The sensing element (also known as the diaphragm) is located between the pressure media and the reference chamber. Taber diaphragms essentially have infinite life within their maximum expected operating pressure (MEOP).*

### ELECTRONIC CIRCUIT BOARD

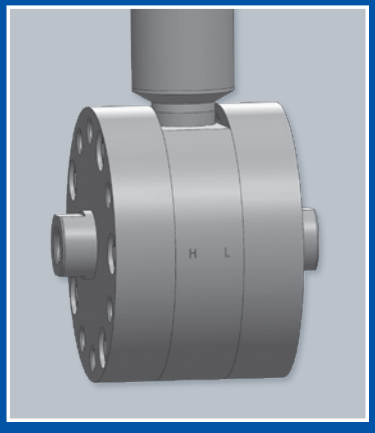
*Taber electronic circuit boards meet a variety of output needs, including millivolt (mV/V), voltage (VDC) and current (mA). Component classification options are available for applications requiring risk reduction and high reliability.*

### ELECTRICAL RECEPTACLE

*Typically, a pin-to-glass sealed component, the electrical receptacle allows you to connect and obtain an electrical output signal. Choose from a wide range of electrical connectors that comply with industry standards.*

### SINGLE-ENDED PRESSURE PORTS

*Non-differential (single-ended) pressure transducers provide unidirectional pressure measurement using absolute (psia) or gauge (psig). Taber manufactures pressure ports that utilize various construction materials based on fluid compatibility.*




### DOUBLE-ENDED PRESSURE PORTS

*Differential (double-ended) pressure transducers measure the positive and negative pressure differential (psid) between two static pressure inputs.*

## 2211 Series

*With roots in the heritage Taber models that supported the Apollo program, the Taber 2211 is the preferred design selection for most industry applications. The 2211 is a highly configurable transducer that offers a non-amplified output.*


## 2911 Series

*The Taber 2911 is the preferred amplified pressure transducer. The Taber 2911 has significant space heritage due to its highly configurable design. The higher level of electronics in the Taber 2911 permits integration of noise filtering, voltage regulation and advanced signal conditioning.*


## 4911 Series

*Aerospace programs rely on the Taber 4911 for its highly configurable design and space grade Class S EEE parts. The amplified 4911 is manufactured and tested to the highest level of quality and is resistant to radiation effects. The 4911 is the preferred choice for satellite manufacturers.*

## 5411 and 5911 Series

*The Taber 5411 and 5911 are designed for extreme high-reliability performance. These amplified transducers feature space grade Class S EEE parts with additional testing, resistance to radiation effects, and external bulkhead filtering with feed-thru filters for EMI/EMC immunity compliant to MIL-STD-461. The 5411 is the low mass version of the 5911.*

## S0206 Series

*The Taber S0206 pressure transducer is the benchmark for test stand pressure transducer applications. Test engineers worldwide have long specified the Taber S0206 because of its mechanical overload protection, removable pressure cap, and replaceable stainless steel diaphragms. This redesigned model incorporates the proven performance and ruggedness of the original model 206, with improved accuracy, increased pressure ranges, and alternate output capabilities.*


## 2000 and 2002 Series

*For oceanographic and oil platform applications, the 2000 and 2002 series offer a completely submersible design, with all stainless steel construction and a seal rating to 10,000 psi. Choose the 2000 series for amplified output, and the 2002 series for non-amplified output.*

## Differential Series *(2212, 2217, 2412 and 2417)*

*These differential, oil-filled pressure transducers are available as bidirectional or unidirectional, are best utilized in a flow or venturi setup, and feature a removable pressure cap that facilitates inspection and cleaning. For non-amplified output, choose the 2212 (for lower line pressure ranges) or 2217 (for higher line pressure ranges). For amplified output, choose the 2412 (for lower line pressure ranges) or 2417 (for higher line pressure ranges).*

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