

HIGH PRESSURE ABSOLUTE

Our high pressure absolute design, the Standard Sat, is TAVIS' flagship pressure transducer for satellite propulsion applications. Designed for extreme space environments, an all-welded, Inconel™/Stainless Steel construction alleviates propellant compatibility and outgassing concerns, while a fortified gage design precludes failure from demanding shock and vibration levels. Increased internal shielding supplies space-grade electronic components with additional protection from ionizing radiation, harsh temperatures, and stray magnetic fields. Customizable diaphragm sizes allow the design to address MEOPs from 30 to 6000 PSIA without additional NRE cost. Standard pressure and electrical interfaces lend convenience to system integrators, whether designing new systems or solving existing problems. Used extensively for the past 40 years, from LEO to deep space, our Standard Sat is the ultimate solution for your satellite propulsion application.

- **Designed for Satellite Propulsion Systems**
- **Highly Configurable Pressure Ranges**
- **High Vibration Spectrum Capable**
- **Level 1 Reliability EEE Electronics**
- **Integrated High Shock Design**
- **Tested to Extreme Temperature Ranges**
- **Lightweight – Small Profile**
- **All Welded Construction**
- **Long Term Stability**
- **Excellent Corrosion Resistance** (MMH, MON, etc.)



TAVIS has provided tailored solutions to our customers since day one. The sample product shown on this data sheet is meant to showcase our engineering and manufacturing capabilities. TAVIS can engineer and manufacture a product that will meet your unique application requirements. From radiation to low pressure, TAVIS transducers will remain stable, even in high vibration and high shock conditions. Contact us today to see how we can best handle your pressure.

SEE SAMPLE SPECS ON NEXT PAGE

GENERAL SPECIFICATIONS

Pressure Range	Configurable, from 0-30 PSIA through 0-6000 PSIA
Proof Pressure	Minimum 1.5X Full Scale Pressure
Burst Pressure	Minimum 2.5X Full Scale Pressure
Weight	Less than 12 OZ (255 Grams)
Sensor Type	Variable Reluctance
EEE Reliability Level	NASA-EEE-INST-002 Level 1

OPTIONS

- Higher proof pressure configurations available. Consult TAVIS Engineering for more info.
- Level 2 EEE option available
- Under 9 oz without feet

PERFORMANCE DETAIL

Total Error Band¹
± 2.0% F.S. max.

Resolution
Effectively infinite

¹ Total Error Band is defined as the maximum deviation from a theoretical straight line between 0.0 @ 0 PSIA and 5.0 VDC @ Full Scale Pressure, which includes the effects of non-linearity, hysteresis, end point set & temperature

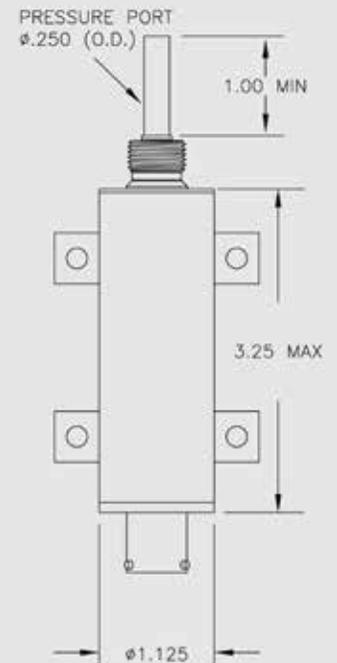
ELECTRICAL SPECIFICATIONS

Input Voltage	24 to 36 VDC
Input Current	6 mA Nominal 10 mA Maximum
Output Signal	0-5 VDC
Electrical Interface	MSFC Spec 40M39569 (NB3H10-6PN)
Output Impedance	1000 Ω Maximum
Output Noise	10 mV RMS Maximum
Insulation Resistance	100 Meg Ohm @ 50 VDC
Isolation Resistance	100 Meg Ohm @ 50 VDC

OPTIONS

- Different Output Signal configurations available (4-20 mA, 0.5-4.5 VDC, etc.)
- Different connector styles such as MIL-DTL-38999 can be accommodated

PRODUCT DIMENSIONS



MECHANICAL SPECIFICATIONS

Operating Media	Liquids or gases compatible with Inconel™ 718 and 321 Stainless Steel
Pressure Interface	1/4 Tube Stub: 0.035" wall thickness,
Compensated Temperature Range	-45°C to +55°C -49°F to +131°F
Shock	4500 G's @ 4000 Hz

OPTIONS

- Different fitting options available (fittings, lock-wire holes, etc.)
- Larger temperature ranges are obtainable (e.g. -65°F to + 235°F)

OPTIONAL DESIGN FEATURES

- Different mounting feet options available, including no feet
- Platinum RTD outputs: 1000 Ω and 2000 Ω
- EMI/EMC filtering
- Pigtail option available
- Outline specification drawings available upon request