TAVIS CORPORATION

MADE IN USA

"LET US HANDLE YOUR PRESSURE"

PUBLISHED: OCTOBER 19, 2025

LOW PRESSURE ABSOLUTE

TAVIS low pressure absolute transducers have been designed to measure low pressures while keeping mass to a minimum. Configurable for MEOPs from 0.1 to 20 PSIA, these transducers deliver precision low pressure measurements across large temperature ranges and environments. An all-welded construction, high-reliability electronics, and excellent long-term stability are all contributing factors for this design's established success and decorated heritage. Non-contact sensors eliminate diaphragm restrictions and limitations, improving hysteresis in extreme low pressure conditions and ability to withstand extreme overpressure events.

- *Highly Configurable Pressure Ranges*
- *Excellent Extended Mission Stability (20+ years)*
- *Designed for Large Temperature Ranges*
- *Tested to High Vibration Environments*
- *Input-Output Isolation*
- *High Accuracy*
- *All Welded Construction*
- *Minimal Hysteresis*
- *Extreme Overpressure Options*

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

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AS9100 · ISO9001 TAVIS Quality

HUBZONE CERTIFIED
HISTORICALLY UNDERUTILIZED BUSINESS ZONE

NIST 800-171 Compliant

ITAR

LOW PRESSURE ABSOLUTE

TAVIS

GENERAL SPECIFICATIONS

Pressure Range	Configurable, from 0-0.1 PSIA through 0-20 PSIA
Proof Pressure	200% of MEOP or 20 PSIA, whichever is greater
Weight	Less than 18 OZ (510 Grams)
Sensor Type	Variable Reluctance
EEE Reliability Level	NASA-EEE-INST-002 Level 2

OPTIONS

- Higher proof pressure configurations available. Consult TAVIS Engineering for more info.
- Level 1 EEE option available

ELECTRICAL SPECIFICATIONS

Input Voltage	22 to 36 VDC
Input Current	10 mA maximum
Output Signal	0-5 VDC
Electrical Interface	MSFC Spec 40M39569 (NB3H10-6PN)
Output Impedance	1000 Ω Maximum
Output Noise	15 mV P-P Maximum
Insulation Resistance	100 Meg Ohm @ 50 VDC
Isolation Resistance	100 Meg Ohm @ 50 VDC

OPTIONS

- Different connector styles such as MIL-DTL-38999 can be accomodated

MECHANICAL SPECIFICATIONS

Operating Media	Liquids or gases compatible with 410 SST, 17-4 SST and Inconel™
Pressure Interface	1/4" AN Flared Tube Fittings per MS33656-4
Compensated Temperature Range	-65°F to +165°F
Random Vibration	42.3 grms

OPTIONS

- Configurable for corrosive media applications. Consult TAVIS Engineering for specific use cases
- Different fitting options available (tube stubs, lockwire holes, etc.)
- Larger temperature ranges are obtainable (e.g. -65°F to + 235°F)

PERFORMANCE DETAIL

Static Accuracy

Static Error Band[1] ± 0.5% F.S. max.
Hysteresis ± 0.1% F.S. nom.
Repeatability ± 0.1% F.S. nom.

Thermal Error[2]

± 1.0% F.S. max.

Frequency Response[3]

Flat ± 5% to 250 Hz

Regulation Error

0.05% F.S./Volt max.

Resolution

Effectively Infinite

[1] Static Error Band is defined as the maximum deviation from a best fit straight line which minimizes errors due to the combined effects of non-linearity, hysteresis, resolution, and non-repeatability

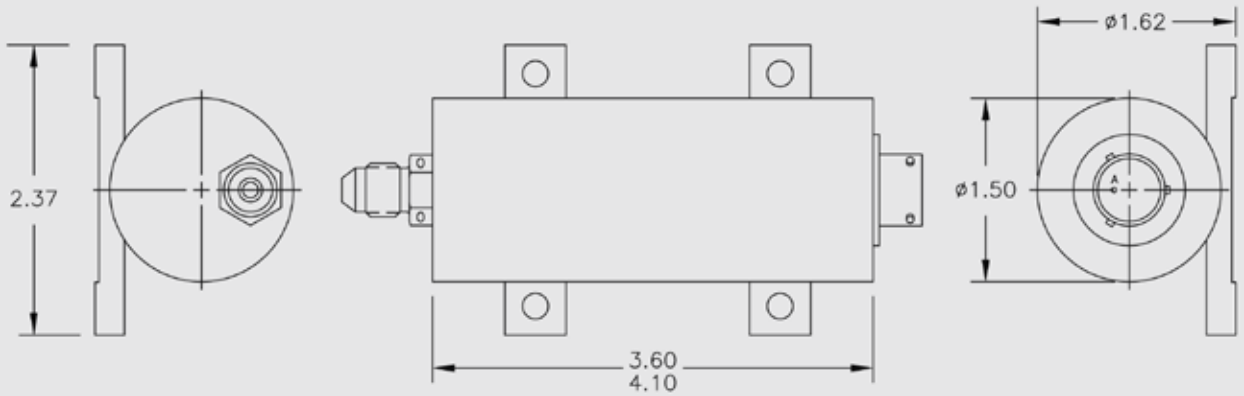
[2] Thermal Error is defined as the maximum allowed deviation from a best fit straight line which minimizes errors due to temperature over the range of -65°F to +165°F

[3] Frequency Response given is for electronics only. Actual Frequency Response will depend on specified pressure range and operating media.

OPTIONAL DESIGN FEATURES

- Different mounting feet options available
- Platinum RTD outputs: 1000 Ω and 2000 Ω
- EMI/EMC filtering
- Pigtail option
- No feet option
- High shock features can be incorporated into the design at customer request
- Outline specification drawings available upon request

PRODUCT DIMENSIONS



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