

## MEDIUM PRESSURE DIFFERENTIAL

TAVIS medium differential pressure transducers strike a balance between a small outline and the ability to measure low differential pressures. Configurable for MEOPs from 0.1 to 100 PSID, these transducers are ideally suited to applications requiring working media on both sides of the diaphragm (wet-wet capability). Designed to operate across large temperature ranges and environments, TAVIS medium pressure differential transducers are well equipped to measure differential pressure in demanding environments.

- *Highly Configurable Pressure Ranges*
- *Tested to Extreme Temperature Ranges*
- *Working Media(Liquid or Gas) can be Applied to Both Pressure Ports*
- *Large Input Voltage Range*
- *High Accuracy*
- *Excellent Extended Mission Stability (20+ years)*
- *All Welded Construction*



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 0-0.1 PSID through 0-100 PSID
Proof Pressure	200% of MEOP or 20 PSIA, whichever is greater
Weight	Less than 16 OZ (435 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

## PERFORMANCE DETAIL

### Static Error Band<sup>1</sup>

± 0.5% F.S. max.  
Hysteresis ± 0.1% F.S. nom.  
Repeatability ± 0.1% F.S. nom.

### Thermal Error<sup>2</sup>

± 1.0% F.S. max.

### Frequency Response<sup>3</sup>

Flat ± 5% to 250 Hz

### Regulation

0.05% F.S./Volt max.

### Resolution

Effectively Infinite

### Acceleration Sensitivity

Dependent on pressure range

<sup>1</sup> 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

<sup>2</sup> 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

<sup>3</sup> Frequency Response given is for electronics only. Actual Frequency Response will depend on specified pressure range and operating media.

## 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 Output Signal configurations available (0.5-5.5 VDC, 0.5-4.5 VDC, etc.)
- Different connector styles can be accommodated

## MECHANICAL SPECIFICATIONS

Operating Media	Liquids or gases compatible with 17-4 Stainless Steel and Inconel™ 625
Pressure Interface	1/4" AN Flared Tube Fittings per MS33656-4
Compensated Temperature Range	-65°F to +165°F
Random Vibration	35 grms

### OPTIONS

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

## OPTIONAL DESIGN FEATURES

- Different mounting feet options available
- Platinum RTD outputs: 1000 Ω and 2000 Ω
- EMI/EMC filtering
- Pigtail option
- Outline specification drawings available upon request

## PRODUCT DIMENSIONS

