

## Unsteady Piezoresistive Pressure Transducer Specifications

### Detailed Specifications

- Pressure range:  $\pm 15$  psid
- Ground isolated
- In-line amplification and temperature compensation
- Combined non-linearity, non-repeatability, pressure hysteresis: 0.5 %FSO RSS max
- Geometric requirements: “flat pack” design 0.062” wide, 0.30” deep
- Screen with single, centered 0.040” hole
- 0.016” diameter vent tube, at least 0.5” long with 0.5” long 0.040” dia. tube brazed on
- Temperature compensation, providing stability from 50 to 150° F
- Thermal zero shift:  $\pm 1\%$  FSO/100° F
- Thermal sensitivity shift:  $\pm 1\%$  /100° F
- Resonance frequency of isolated sensing diaphragm at least 130 kHz
- Burst pressure: 3X rated pressure
- Electrical
  - Configuration: fully active four-arm Wheatstone bridge dielectrically isolated
  - Polarity: Positive output for increasing pressure into port (diaphragm side)
  - Separate fifth wire lead for shield
  - Cable, integral: four conductor plus shield, No. 38 AWG insulated leads, 48” between sensor and temperature compensator (TC), 8” between TC and amplifier, followed by 48” of cable length