

Model 797T-1 General purpose accelerometer with internal temperature sensor

Dynamic

| | |
|---|--------------------------------|
| Sensitivity, ±5%, 25° C | 100 mV/g |
| Acceleration range | 80 g peak |
| Amplitude nonlinearity | 1% |
| Frequency response: | |
| ±5% | 3 - 5,000 Hz |
| ±10% | 2 - 7,000 Hz |
| ±3 dB | 1 - 12,000 Hz |
| Resonance frequency | 26 kHz |
| Transverse sensitivity, max | 5% of axial |
| Temperature response | |
| - 50° C | - 5% |
| +120° C | +5% |
| Temperature output sensitivity, ±5% | 10 mV/°K |
| Temperature measurement range | 223 to 390° K (- 50 to 120° C) |

Electrical

Temperature sensor

| | | |
|--------------------|--------------------------------|------------------------------------|
| Power requirement: | voltage source | 18 - 30 VDC |
| | current regulating diode | 2 - 4 mA |
| Grounding | | case isolated, internally shielded |

Accelerometer

| | | |
|--------------------|--------------------------------|-------------|
| Power requirement: | voltage source | 18 - 30 VDC |
| | current regulating diode | 2 - 10 mA |

Electrical noise, equiv. g:

| | | |
|-----------|------------------------|----------|
| Broadband | 2.5 Hz to 25 kHz | 600 µg |
| Spectral | 10 Hz | 8 µg/√Hz |
| | 100 Hz | 5 µg/√Hz |
| | 1000 Hz | 5 µg/√Hz |

Output impedance, max

| | |
|---------------------------|------------------------------------|
| Bias output voltage | 100 Ω |
| Grounding | 12 VDC |
| | case isolated, internally shielded |

Environmental

Temperature range

| | |
|---|-----------------|
| Temperature range | -50 to 120° C |
| Vibration limit | 500 g peak |
| Shock limit | 5,000 g peak |
| Electromagnetic sensitivity, equiv. g | 30 µg/gauss |
| Seal | hermetic |
| Base strain sensitivity | 0.002 g/µstrain |

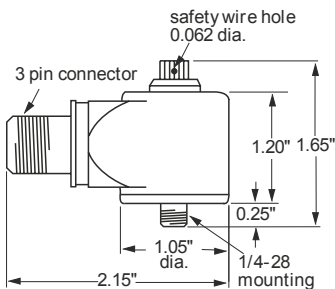
Physical

| | |
|------------------------------|----------------------------------|
| Sensing element design | PZT ceramic / shear |
| Weight | 135 grams |
| Mounting | 1/4-28 captive socket head screw |
| Output connector | 3 pin, MIL-C-5015 style |
| Mating connector | R6G type |
| Recommended cabling | J9T3A |

Accessories supplied: #12105-01 captive screw (International customers specify mounting requirements); calibration data (level 3)

Features

- Senses both acceleration and temperature
- Rugged design
- Hermetic seal
- Ground isolated
- ESD protection
- Reverse wiring protection
- Mounts in any orientation



Connections

| Connector pin | Function |
|---------------|------------------------------------|
| Shell | ground |
| A | accelerometer, power / signal |
| B | accelerometer / temperature common |
| C | temperature sensor, power / signal |