

General purpose dual output sensor

787T

SPECIFICATIONS

| | |
|--|--|
| Sensitivity, $\pm 5\%$, 25°C | 100 mV/g |
| Acceleration range, VDC > 25 V | 80 g peak |
| Amplitude nonlinearity | 1% |
| Frequency response: | |
| $\pm 5\%$ | 1.0 - 5,000 Hz |
| $\pm 10\%$ | 0.7 - 10,000 Hz |
| ± 3 dB | 0.5 - 12,000 Hz |
| Resonance frequency | 22 kHz |
| Transverse sensitivity, max | 5% of axial |
| Temperature response: | |
| -25°C | -10% |
| +120°C | +10% |
| Temperature sensor: | |
| Output sensitivity | 10 mV/°C |
| Measurement range | 2° to 120°C |
| Power requirement: | |
| Voltage source ¹ | 18 - 30 VDC |
| Current regulating diode ^{1,2} | 2 - 10 mA |
| Electrical noise, equiv. g, nominal: | |
| Broadband 2.5 Hz to 25 kHz | 700 μ g |
| Spectral 10 Hz | 10 μ g/ $\sqrt{\text{Hz}}$ |
| 100 Hz | 5 μ g/ $\sqrt{\text{Hz}}$ |
| 1,000 Hz | 5 μ g/ $\sqrt{\text{Hz}}$ |
| Output impedance, max | 100 Ω |
| Bias output voltage, nominal | 12 VDC |
| Grounding | case isolated, internally shielded |
| Temperature range | -50° to +120°C |
| Vibration limit | 500 g peak |
| Shock limit | 5,000 g peak |
| Electromagnetic sensitivity, equiv. g, max | 70 μ g/gauss |
| Sealing | hermetic |
| Base strain sensitivity, max | 0.002 g/ μ strain |
| Sensing element design | PZT ceramic / shear |
| Weight | 145 grams |
| Case material | 316L stainless steel |
| Mounting | 1/4-28 captive screw w/ 0.046" diameter safety wire hole |
| Output connector | 3 pin, MIL-C-5015 style |
| Mating connector | 3 socket, MIL-C-5015 style |
| Recommended cabling | 3 conductor, shielded |

Notes: ¹ To minimize the possibility of signal distortion during high vibration signals, 24 to 28 VDC powering is recommended. The higher level constant current source should be used when driving long cables.

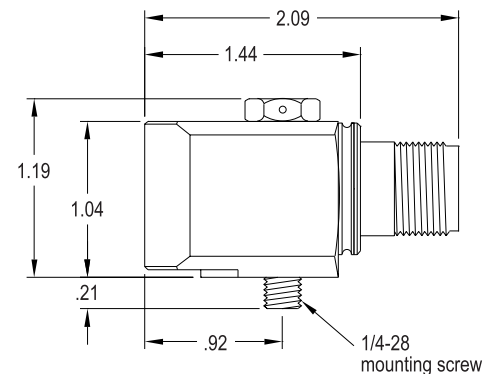
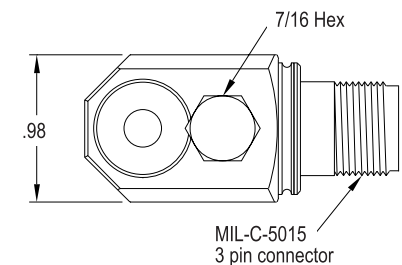
² A maximum current of 6 mA is recommended for operating temperatures in excess of 100°C.

Accessories supplied: 1/4-28 captive screw; calibration data (level 2)



Key features

- Accelerometer with internal temperature sensor
- Available with M12 connector
- Manufactured in ISO 9001 facility



| Connections | |
|--------------------------------------|---------------|
| Function | Connector pin |
| accelerometer power/signal | A |
| accelerometer and temp sensor common | B |
| temp sensor signal | C |
| ground / case | shell |



Note: Due to continuous process improvement, specifications are subject to change without notice. This document is cleared for public release.