

# High temperature accelerometer

## HT787A

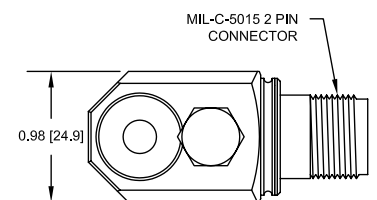
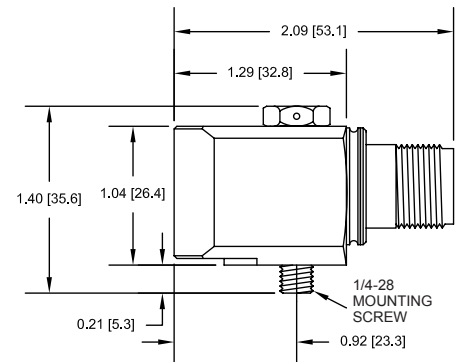
### SPECIFICATIONS

|   |                  |   |
|---|------------------|---|
| <b>Sensitivity, <math>\pm 5\%</math>, 25°C</b>    |                  | 100 mV/g  |
| <b>Acceleration range, VDC &gt; 25 V</b>          |                  | 80 g peak   |
| <b>Amplitude nonlinearity</b>                     |                  | 1%  |
| <b>Frequency response:</b>                        |                  |   |
|   | $\pm 10\%$       | 1.0 - 5,000 Hz  |
|   | $\pm 3$ dB       | 0.5 - 10,000 Hz   |
| <b>Resonance frequency, nominal</b>               |                  | 22 kHz  |
| <b>Transverse sensitivity, max</b>                |                  | 5% of axial   |
| <b>Temperature response:</b>                      |                  |   |
|   | -25°C            | -10%  |
|   | +150°C           | +15%  |
| <b>Power requirement:</b>                         |                  |   |
| Voltage source                                    |                  | 18 - 30 VDC   |
| Current regulating diode                          |                  | 2 - 10 mA   |
| <b>Electrical noise, equiv. g:</b>                |                  |   |
|   |                  | <b>25°C</b> <b>150°C</b>                                      |
| Broadband   | 2.5 Hz to 25 kHz | 700 $\mu$ g      1,100 $\mu$ g                                |
| Spectral  | 10 Hz            | 10 $\mu$ g/ $\sqrt{\text{Hz}}$ 14 $\mu$ g/ $\sqrt{\text{Hz}}$ |
|   | 100 Hz           | 5 $\mu$ g/ $\sqrt{\text{Hz}}$ 7 $\mu$ g/ $\sqrt{\text{Hz}}$   |
|   | 1,000 Hz         | 5 $\mu$ g/ $\sqrt{\text{Hz}}$ 7 $\mu$ g/ $\sqrt{\text{Hz}}$   |
| <b>Output impedance, max</b>                      |                  | 100 $\Omega$  |
| <b>Bias output voltage:</b>                       |                  |   |
|   | +25°C            | 13 VDC  |
|   | +150°C           | 12 VDC  |
| <b>Grounding</b>                                  |                  | case isolated, internally shielded                            |
| <b>Temperature range<sup>1</sup></b>              |                  | -50° to +165°C  |
| <b>Vibration limit</b>                            |                  | 500 g peak  |
| <b>Shock limit</b>                                |                  | 5,000 g peak  |
| <b>Electromagnetic sensitivity, equiv. g, max</b> |                  | 70 $\mu$ g/gauss  |
| <b>Sealing</b>                                    |                  | hermetic  |
| <b>Base strain sensitivity, max</b>               |                  | 0.0002 g/ $\mu$ strain  |
| <b>Sensing element design</b>                     |                  | PZT, shear  |
| <b>Weight</b>                                     |                  | 145 grams   |
| <b>Case material</b>                              |                  | 316L stainless steel  |
| <b>Mounting</b>                                   |                  | 1/4-28 captive screw  |
| <b>Output connector</b>                           |                  | 2 pin, MIL-5015 style   |
| <b>Recommended cabling</b>                        |                  | J9F / J9T2A   |



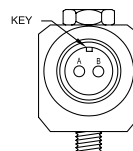
### Key features

- Operation in environments up to 165°C
- Built with extended range components for long-lasting operation
- Manufactured in ISO 9001 facility



**Notes:** <sup>1</sup> Dependent on current supply. BOV, dynamic range and noise may vary.

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



| Connections  |               |
|--------------|---------------|
| Function     | Connector pin |
| power/signal | A             |
| common       | B             |
| ground       | shell         |

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

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