

# High temperature accelerometer

## HT786A

### SPECIFICATIONS

|                                            |                  |                                     |
|--------------------------------------------|------------------|-------------------------------------|
| Sensitivity, $\pm 5\%$ , 25°C              |                  | 100 mV/g                            |
| Acceleration range, VDC > 25 V             |                  | 80 g peak                           |
| Amplitude nonlinearity                     |                  | 1%                                  |
| Frequency response:                        | $\pm 5\%$        | 3 - 5,000 Hz                        |
|                                            | $\pm 10\%$       | 1 - 9,000 Hz                        |
|                                            | $\pm 3$ dB       | 0.5 - 14,000 Hz                     |
| Resonance frequency, nominal               |                  | 30 kHz                              |
| Transverse sensitivity, max                |                  | 5% of axial                         |
| Temperature response:                      | -25°C            | -10%                                |
|                                            | +150°C           | +15%                                |
| Power requirement:                         |                  |                                     |
| Voltage source                             |                  | 18 - 30 VDC                         |
| Current regulating diode                   |                  | 2 - 10 mA                           |
| Electrical noise, equiv. g:                |                  |                                     |
| Broadband                                  | 2.5 Hz to 25 kHz | 25°C 700 $\mu$ g                    |
|                                            |                  | 150°C 1,100 $\mu$ g                 |
|                                            | 10 Hz            | 10 $\mu$ g/ $\sqrt{\text{Hz}}$      |
|                                            | 100 Hz           | 5 $\mu$ g/ $\sqrt{\text{Hz}}$       |
| Spectral                                   | 1,000 Hz         | 5 $\mu$ g/ $\sqrt{\text{Hz}}$       |
|                                            |                  | 150°C 7 $\mu$ g/ $\sqrt{\text{Hz}}$ |
| Output impedance, max                      |                  | 100 $\Omega$                        |
| Bias output voltage:                       | +25°C            | 13 VDC                              |
|                                            | +150°C           | 12 VDC                              |
| Grounding                                  |                  | case isolated, internally shielded  |
| Temperature range <sup>1</sup>             |                  | -50° to +165°C                      |
| Vibration limit                            |                  | 500 g peak                          |
| Shock limit                                |                  | 5,000 g peak                        |
| Electromagnetic sensitivity, equiv. g, max |                  | 70 $\mu$ g/gauss                    |
| Sealing                                    |                  | hermetic                            |
| Base strain sensitivity, max               |                  | 0.0002 g/ $\mu$ strain              |
| Sensing element design                     |                  | PZT, shear                          |
| Weight                                     |                  | 90 grams                            |
| Case material                              |                  | 316L stainless steel                |
| Mounting                                   |                  | 1/4-28 UNF tapped hole              |
| Output connector                           |                  | 2 pin, MIL-C-5015 style             |

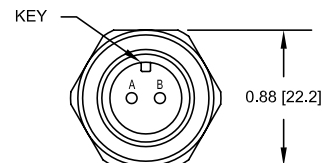
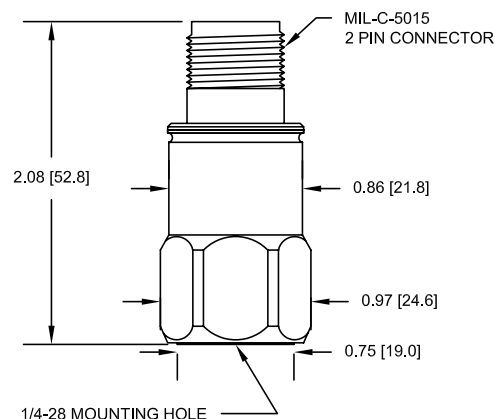
Notes: <sup>1</sup> Dependent on current supply. BOV, dynamic range and noise may vary.

Accessories supplied: SF6 mounting stud (metric mounting available); calibration data (level 2)



### Key features

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



| 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.