

# General purpose accelerometer





## 797 series

### 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>                     | $\pm 5\%$        | 3 - 5,000 Hz                       |
|  | $\pm 10\%$       | 2 - 7,000 Hz                       |
|  | $\pm 3$ dB       | 1 - 12,000 Hz                      |
| <b>Resonance frequency</b>                     |                  | 26 kHz                             |
| <b>Transverse sensitivity, max</b>             |                  | 5% of axial                        |
| <b>Temperature response:</b>                   | -50°C            | -15%                               |
|  | +120°C           | +15%                               |
| <b>Power requirement:</b>                      |                  |                                    |
| Voltage source                                 |                  | 18 - 30 VDC                        |
| Current regulating diode                       |                  | 2 - 10 mA                          |
| <b>Electrical noise, equiv. g:</b>             |                  |                                    |
| Broadband                                      | 2.5 Hz to 25 kHz | 600 $\mu$ g                        |
| Spectral                                       | 10 Hz            | 8 $\mu$ g/ $\sqrt{\text{Hz}}$      |
|  | 100 Hz           | 5 $\mu$ g/ $\sqrt{\text{Hz}}$      |
|  | 1,000 Hz         | 5 $\mu$ g/ $\sqrt{\text{Hz}}$      |
| <b>Output impedance, max</b>                   |                  | 100 $\Omega$                       |
| <b>Bias output voltage</b>                     |                  | 12 VDC                             |
| <b>Grounding</b>                               |                  | case isolated, internally shielded |
| <b>Temperature range</b>                       |                  | -50° to +120°C                     |
| <b>Vibration limit</b>                         |                  | 500 g peak                         |
| <b>Shock limit</b>                             |                  | 5,000 g peak                       |
| <b>Sealing</b>                                 |                  | hermetic                           |
| <b>Base strain sensitivity</b>                 |                  | 0.002 g/ $\mu$ strain              |
| <b>Sensing element design</b>                  |                  | PZT, shear                         |
| <b>Weight</b>                                  |                  | 138 grams                          |
| <b>Case material</b>                           |                  | 316L stainless steel               |
| <b>Mounting</b>                                |                  | 1/4-28 captive socket head         |
| <b>Output connector</b>                        |                  | 2 pin, MIL-C-5015 style            |
| <b>Mating connector</b>                        |                  | R6 type                            |
| <b>Recommended cabling</b>                     |                  | J10 / J9T2A                        |

**Accessories supplied:** #12105-01 captive socket head (metric mounting available); calibration data (level 3)

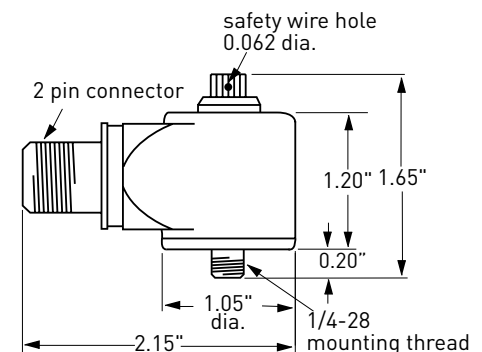
### Certifications

| All 797 models   | 797E  | 797-33  | 797-35  |
|--|---|---|---|
|  |  Class I, II, III, T4<br>Div 1 Groups A, B, C, D, E, F, G<br>Div 2 Groups A, B, C, D, F, G |  Class I, Div 1<br>Groups A, B, C, D |  II 1 G<br>Ex ia IIC T4 Ga<br>Tamb: -50°C to 120°C |



### Key features

- Certified versions available for use in hazardous areas (models 797E, 797-33, 797-35)
- Radiation resistant options available (model 797R)
- Manufactured in ISO 9001 facility



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

For Hazardous area installations the transducer must be installed per 11537.

The model 797-35 transducer must not be subjected to an acceleration greater than 3200g.

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