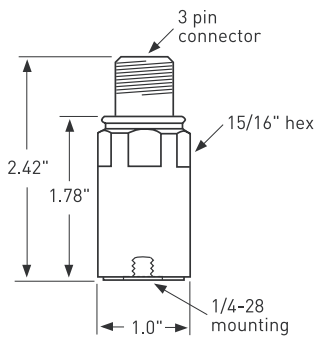


## Model 793T-3 General purpose accelerometer with internal temperature sensor



### Features

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



### Dynamic

|   |                             |
|---|-----------------------------|
| Sensitivity, $\pm 5\%$ , 25°C .....             | 100 mV/g                    |
| Acceleration range .....                        | 80 g peak                   |
| Amplitude nonlinearity .....                    | 1%                          |
| Frequency response:                             |                             |
| $\pm 5\%$ .....                                 | 1.5 - 5,000 Hz              |
| $\pm 10\%$ .....                                | 1.0 - 7,000 Hz              |
| $\pm 3$ dB .....                                | 0.5 - 15,000 Hz             |
| Resonance frequency .....                       | 24 kHz                      |
| Transverse sensitivity, max .....               | 5% of axial                 |
| Temperature response:                           |                             |
| -50°C .....                                     | -10%                        |
| +120°C .....                                    | +5%                         |
| Temperature output sensitivity, $\pm 5\%$ ..... | 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 $\mu$ g           |
| Spectral  | 10 Hz .....            | 8 $\mu$ g/ $\sqrt$ Hz |
|           | 100 Hz .....           | 5 $\mu$ g/ $\sqrt$ Hz |
|           | 1000 Hz .....          | 5 $\mu$ g/ $\sqrt$ Hz |

|                             |                                    |
|-----------------------------|------------------------------------|
| Output impedance, max ..... | 100 $\Omega$                       |
| Bias output voltage .....   | 12 VDC                             |
| Grounding .....             | case isolated, internally shielded |

### Environmental

|   |                        |
|---|------------------------|
| Temperature range .....                     | -50 to 120°C           |
| Vibration limit .....                       | 500 g peak             |
| Shock limit .....                           | 5,000 g peak           |
| Electromagnetic sensitivity, equiv. g ..... | 10 $\mu$ g/gauss       |
| Sealing .....                               | hermetic               |
| Base strain sensitivity .....               | 0.0005 g/ $\mu$ strain |

### Physical

|                              |                           |
|------------------------------|---------------------------|
| Sensing element design ..... | PZT ceramic / compression |
| Weight .....                 | 115 grams                 |
| Case material .....          | 316L stainless steel      |
| Mounting .....               | 1/4-28 tapped hole        |
| Output connector .....       | 3 pin, MIL-C-5015 style   |
| Mating Connector .....       | R6G type                  |
| Recommended cabling .....    | J9T3A                     |

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

Accessories supplied: SF6 mounting stud (International customers specify mounting requirements); calibration data (level