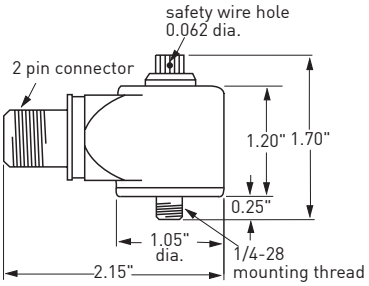
Wilcoxon Research

# Model ED-797L
# TEDS low profile, low frequency IsoRing accelerometer

## Features

- Contains Transducer Electronic Data Sheet (IEEE 1451 - TEDS)
- Self-identifying
- High sensitivity
- Ultra low-noise electronics for clear signals at very low vibration levels
- Low pass filtered to attenuate high frequencies
- Hermetic seal
- ESD protection
- Reverse wiring protection




## Benefits

- Simplifies troubleshooting
- Reduces safety risks - no more climbing on machines to verify connections
- Reduces costs for set-up and tear-down
- No need to recalibrate replacement units - data acquisition system will recalibrate itself
- Designed to integrate with wireless transmitters and receivers
  - eliminates long cables
  - reduces installation, maintenance and upgrade costs of measurement and control systems

## Dynamic

| | |
|---|---|
| Sensitivity, ±5%, 25°C | 500 mV/g |
| Acceleration range | 10 g peak |
| Amplitude nonlinearity | 1% |
| Frequency response: | |
| –5% | 0.6 - 850 Hz |
| –10% | 0.4 - 1,500 Hz |
| –3 dB | 0.2 - 3,700 Hz |
| Resonance frequency | 18 kHz |
| Transverse sensitivity, max | 7% of axial |
| Temperature response | –50°C –8%<br>+120°C +5% |

## Electrical

| | |
|---|---|
| Power requirement: voltage source | 18 - 30 VDC |
| current regulating diode | 2 - 10 mA |
| Electrical Noise, equiv. g: | |
| Broadband 2.5 Hz to 25 kHz | 12 µg |
| Spectral 2 Hz | 2.0 µg/√Hz |
| 10 Hz | 0.6 µg/√Hz |
| 100 Hz | 0.2 µg/√Hz |
| Output impedance, max. | 100 Ω |
| Bias output voltage | 10 VDC |
| Grounding | case isolated, internally shielded |

## Environmental

| | |
|---|---|
| Temperature range[1] | –50 to 120°C |
| Vibration limit | 250 g peak |
| Shock limit | 2,500 g peak |
| Electromagnetic sensitivity, equiv. g | 5 µg/gauss |
| Sealing | hermetic |
| Base strain sensitivity | 0.001 g/µstrain |

## Physical

| | |
|---|---|
| Sensing element design | PZT ceramic / shear |
| Weight | 153 grams |
| Case material | 316L stainless steel |
| Mounting | 1/4-28 captive socket head screw |
| Mating connector | R6 type |
| Recommended cabling | J9T2A |

| Connector pin | Function | Cable conductor color |
|---|---|---|
| Shell | ground | Shield |
| A | power/ signal | White |
| B | common | Black |

Notes: [1]Temperature range is limited to -40°C to +85°C when using the IEEE 1451- TEDS function

Accessories supplied: #12105-01 captive socket head (International customers specify mounting requirements); TEDS calibration data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