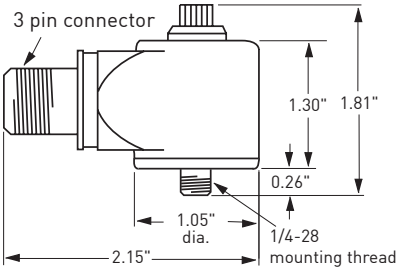
Wilcoxon Research

# Model 797LT
# Low frequency accelerometer with temperature sensor

Features
- Senses both acceleration and temperature
- Corrosion resistant
- Hermetic seal
- Ground isolated
- ESD protection
- Reverse wiring protection




## 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 | –5% |
| +120°C | +5% |
| Temperature output sensitivity, ±5% | 10 mV/K |
| Temperature measurement range | 223 to 390K (–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 | 12 µg |
| Spectral | 2 Hz | 2 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 | –50 to 120°C |
| Vibration limit | 250 g peak |
| Shock limit | 2,500 g peak |
| Electromagnetic sensitivity, equiv. g | 5 µg/gauss |
| Base strain sensitivity | 0.001 g/µstrain |

## Physical

| | |
|---|---|
| Sensing element design | PZT ceramic / shear |
| Weight | 160 grams |
| Case material | 316L stainless steel |
| Mounting | 1/4-28 captive socket head screw |
| Output connector | 3 pin, MIL-C-5015 style |
| Mating connector | R6G type |
| Recommended cabling | J9T3A |

Accessories supplied: #12105-01 captive screw (International customers specify mounting requirements); calibration data (level 3).

## Connections

| Connector pin | Function | Cable conductor color |
|---|---|---|
| Shell | ground | shield |
| A | accelerometer, power / signal | red |
| B | accelerometer / temperature common | black |
| C | temperature sensor, power / signal | white |


Wilcoxon Research Inc
21 Firstfield Rd.
Gaithersburg, MD 20878
USA

Tel: 301 330 8811
Fax: 301 330 8873
Email: sensors@wilcoxon.com

www.meggitt.com


MEGGITT
smart engineering for extreme environments

98259 Rev.A.2 6/99