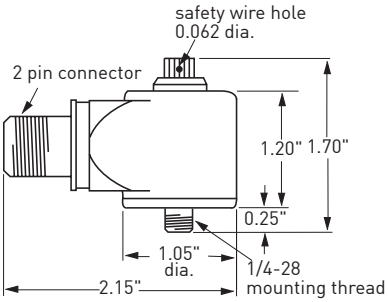
Wilcoxon Research

Model ED-797
TEDS premium, PiezoFET®, low profile IsoRing accelerometer

Features
- Contains transducer electronic data sheet (IEEE 1451 - TEDS)
- Self-identifying
- Rugged design
- Corrosion resistant
- Hermetic seal
- Ground isolated
- ESD protection
- Reverse wiring protection
- Mounting in any orientation



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	100 mV/g
Acceleration range	50 g peak
Amplitude nonlinearity	1%
Frequency response:	
±5%	3 - 5,000 Hz
±10%	2 - 7,000 Hz
±3 dB	1 - 12,000 Hz
Resonance frequency	26 kHz
Transverse sensitivity, max	5 % of axial
Temperature response:	
–50°C	–5%
+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	600 µg
Spectral	10 Hz	8 µg/√Hz
	100 Hz	5 µg/√Hz
	1000 Hz	5 µg/√Hz
Output impedance, max.		100 Ω
Bias output voltage		12 VDC
Grounding		case isolated, internally shielded

Environmental

Temperature range[1]	–50 to 120°C
Vibration limit	500 g peak
Shock limit	5,000 g peak
Electromagnetic sensitivity, equiv. g	30 µg/gauss
Sealing	hermetic
Base strain sensitivity	0.002 g/µstrain

Physical

Sensing element design	PZT ceramic / shear
Weight	140 grams
Case material	316L stainless steel
Mounting	1/4-28 captive socket head screw
Output connector	2 pin, MIL-C-5015 style
Mating connector	R6 type
Recommended cabling	J10 / 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: #12105-01captive socket head (metric studs available upon request); TEDS calibration data

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