Wilcoxon Research

Model 991D
Internally amplified, helicopter accelerometer

Dynamic

Sensitivity[1], ±5%, 25°C	40 mV/g
Acceleration range	40 g peak
Amplitude nonlinearity	1%
Frequency response:	
±5%	2.0 - 4,000 Hz
±10%	1.0 - 6,000 Hz
±3 dB	0.5 - 12,000 Hz
Resonance frequency, mounted, nominal	20 kHz
Transverse sensitivity, max.	7% of axial
Temperature response	–50°C +2% +120°C –10%

Electrical

Power requirement: voltage source	9 VDC
Electrical noise, equiv. g, nominal:	
Broadband 2.5 Hz to 25 kHz	75 µg
Spectral 10 Hz	7.0 µg/√Hz
100 Hz	1.3 µg/√Hz
1000 Hz	0.9 µg/√Hz
Output impedance, max	2,400 Ω
Bias output voltage	3.5, ±0.5 VDC
Grounding	base isolated

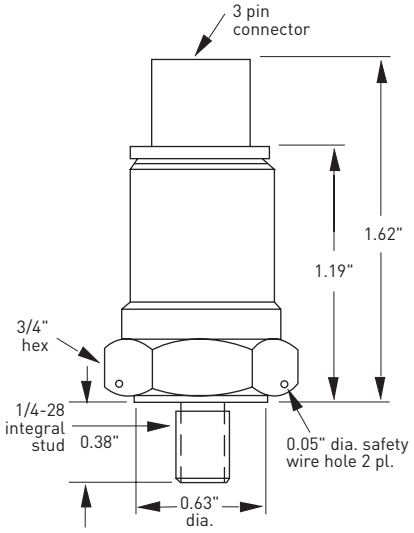
Environmental

Temperature range	–50 to 120°C
Vibration limit	250 g peak
Shock limit	1,000 g peak
Electromagnetic sensitivity, equiv. g.	40 µg/gauss
Base strain sensitivity	0.002 g/µstrain

Physical

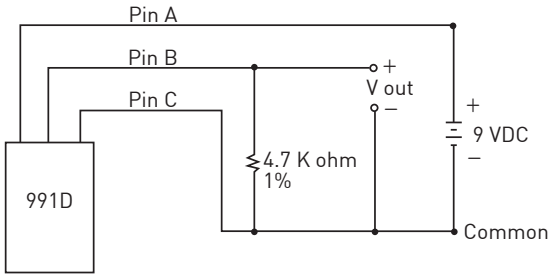
Weight	54 grams
Case material	stainless steel
Mounting	1/4-28 x 0.38 integral stud
Output connector	3 pin, MIL-C-26482
Mating connector	Bendix PT06A-8-3S
Cable	2 conductor shielded

Connector	Function
A	9 VDC
B	signal out
C	common



Notes: [1] As measured across a 4.7 kΩ load (see calibration powering diagram) sensitivity is 60 mV/g as measured in operating system

Calibration powering diagram



Note: This powering method is used for calibration purposes ONLY.

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