

Ultra low noise power unit/amplifier

P31

SPECIFICATIONS

INPUT CHARACTERISTICS

Voltage to transducer	18 VDC
Current to transducer, $\pm 20\%$	2.4 mA
Maximum input voltage (gain = 1)	3.5 V rms

OUTPUT CHARACTERISTICS

Output impedance, nominal	2.5 k Ω
Recommended load impedance	>250 k Ω
Maximum output voltage	3.5 V rms
Spectral noise, 1-10 Hz, referred to input	< -140 dB

TRANSFER CHARACTERISTICS

Gain acceleration	1, 10, 100 V/V
Output sensitivity ¹ :	
Acceleration	10, 100, 1,000 V/g
Velocity	0.1, 1, 10 V/in/sec

Gain accuracy	± 0.25 dB
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Frequency response, -3 dB:

Acceleration (450 Hz filtered)	0.05 - 450 Hz
Acceleration (100 Hz filtered)	0.05 - 100 Hz
Velocity	0.8 - 150 Hz

Amplitude nonlinearity	<1%
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Total harmonic distortion	<1%
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POWER REQUIREMENTS

Internal batteries	(2) 9 V alkaline
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Battery life	>50 hours
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ENVIRONMENTAL

Temperature range	0° to +55°C
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Relative humidity, max	90%
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PHYSICAL CHARACTERISTICS

Weight	1.4 lb
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Dimensions, W x H x D	3 x 1 $\frac{1}{2}$ x 6"
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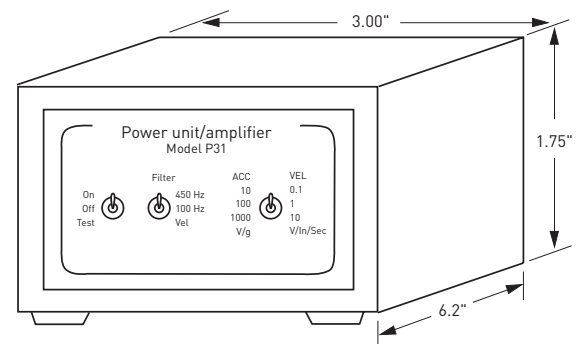
Connectors:	Signal input	Amphenol 31-225 twinax
	Signal output	BNC

Notes: ¹ When used with 731A accelerometer.

Accessories supplied: Two 9 V alkaline batteries

Key features

- Amplifies signal x1, x10, x100
- Switchable output - acceleration or velocity
- Powers 731A accelerometer
- Manufactured in ISO 9001 facility



Note: Due to continuous process improvement, specifications are subject to change without notice. This document is cleared for public release.