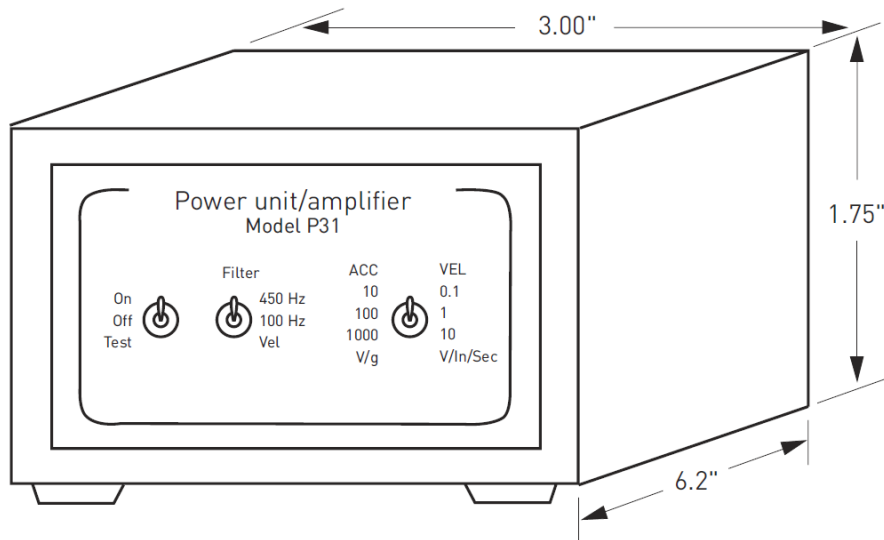


Ultra low noise power unit/amplifier

P31

Key features

- Powers model 731 seismic accelerometer
- Ultra low noise
- Amplifies signal x1, x10, x100
- Switchable output: acceleration or velocity
- Battery powered
- Wide dynamic range
- Switchable low pass filter, 450 Hz or 100 Hz
- Low current draw
- Battery test light



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

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Wilcoxon Sensing Technologies
An Amphenol Company

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, 1000 V/g
	Velocity	0.1, 1, 10 V/in/sec
Gain accuracy		± 0.25 dB
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%
Total harmonic distortion		< 1%
POWER REQUIREMENTS		
Internal batteries		(2) 9 V alkaline
Battery life		> 50 hours
ENVIRONMENTAL		
Temperature range		0 to 55° C
Relative humidity, max		90%
PHYSICAL CHARACTERISTICS		
Weight		1.4 lb
Dimensions		3" W x 1 $\frac{7}{8}$ " H x 6" D
Connectors	Signal input	Amphenol 31-225 twinax
	Signal output	BNC

Contact

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Accessories supplied:

- Two 9 V alkaline batteries

Notes: ¹ When used with
731A accelerometer.

For multi-channel require-
ments, consult factory for
information about the PR710
series, 10 channel power
unit/amplifier.

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