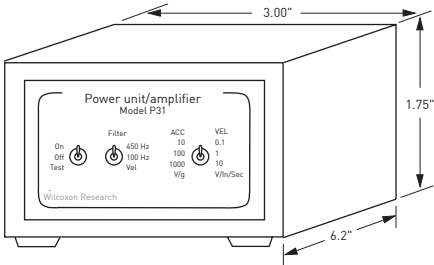


# Model P31

## Ultra low noise power unit/ amplifier

Features

- Powers Model 731 seismic accelerometer
- Ultra low noise
- Amplifies signal X1, X10, X100
- Switchable output: acceleration or velocity
- Battery powered
- Wide dynamic range - 120 dB
- Switchable low pass filter 450 Hz or 100 Hz
- Low current draw
- Battery test light



	P31	Units
<b>Input characteristics</b>		
Voltage to transducer	18	VDC
Current to transducer, ±20 %	2.4	mA
Maximum input voltage (gain = 1)	3.5	V rms
<b>Output characteristics</b>		
Output impedance, nominal	2500	Ω
Recommended load Impedance	>250	kΩ
Maximum output voltage	3.5	V rms
Output mode, switchable	acceleration velocity	V/g V/in/sec
Spectral noise, 1 - 10 Hz, referred to input	<-140	dB
<b>Transfer characteristics</b>		
Gain, acceleration	10, 100, 1000	V/g
Gain, velocity	0.1, 1, 10	V/in/sec
Gain accuracy	±0.25	dB
<b>Frequency response, -3 dB</b>		
Acceleration (450 Hz Filtered)	0.05 - 450	Hz
Acceleration (100 Hz Filtered)	0.05 - 100	Hz
Velocity	0.8 - 150	Hz
<b>Amplitude nonlinearity</b>		
Total harmonic distortion	<1	%
<b>Power requirements</b>		
Internal batteries	(2) 9 V alkaline	
Battery life	> 50	hrs
<b>Environmental</b>		
Temperature range	0 to 55	°C
Relative humidity, max.	90	%
<b>Physical characteristics</b>		
Weight	1.4	lb
Dimensions	3 W x 1 7/8 H x 6 D	inch
Connectors: Signal input	Amphenol 31-2225	twinax
Signal output	BNC	

Note: For multi-channel requirements, consult the factory for information about the PR710 series, 10 channel power unit/amplifier.  
 Accessories supplied: (2) 9 V alkaline batteries.

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