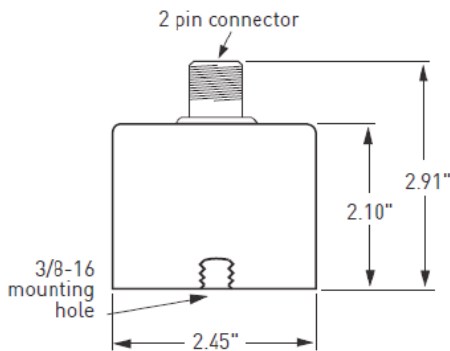


Seismic accelerometer and power amplifier 731A/P31 system

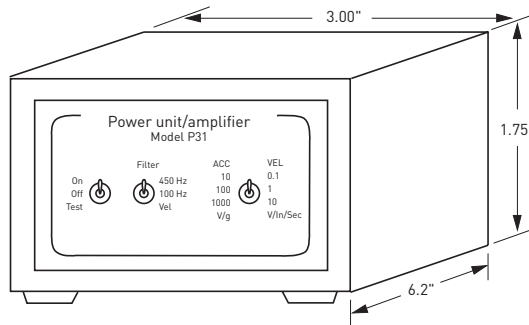


Key features

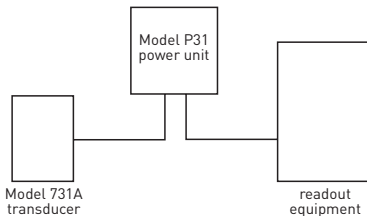
- Ultra high sensitivity
- Ultra low-noise electronics for clear signals at sub micro-g levels
- Low frequency capable
- Low pass filtered to eliminate high frequencies
- ESD protection
- Reverse wiring protection



Model 731A



Model P31



Powering with P31 power unit

Connections			
Output	Connector	Function	Cable
731A	A	power/signal	white
	B	common	black
	shell	case	shield
P31	pin	signal	center conductor
	shell	common	shield
Input	Connector	Function	Cable
P31	pin	power/signal	white
	socket	common	black
	shell	ground	shield

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

Seismic accelerometer and power amplifier 731A/P31 system

SPECIFICATIONS

Acceleration sensitivity, selectable	10, 100, 1000 V/g			
Velocity sensitivity, selectable	0.1, 1, 10 V/in/sec			
Vibration range, max	0.5 g peak			
Amplitude nonlinearity	1%			
Frequency response:				
Filter	100 Hz	450 Hz	velocity	
-10%	0.08 - 70 Hz	0.08 - 300 Hz	- - -	
-3 dB	0.05 - 100 Hz	0.05 - 450 Hz	0.8 - 150 Hz	
Transverse sensitivity, max	1% of axial			
Output impedance	2500 Ω			
Recommended load impedance	> 250 k Ω			
Maximum output voltage	5 V peak			
Noise:				
Spectral	2 Hz	0.03 $\mu\text{g}/\sqrt{\text{Hz}}$		
	10 Hz	0.01 $\mu\text{g}/\sqrt{\text{Hz}}$		
	100 Hz	0.004 $\mu\text{g}/\sqrt{\text{Hz}}$		
Grounding	case isolated			
Output connector:				
731A	2-pin, MIL-C-5015			
P31	BNC			
Input connector (P31)	twin axial BNC			
Power requirements (P31):				
Internal batteries	(2) 9-volt alkaline			
Battery life	> 75 hours			
Temperature range	-10 to +65° C			
Vibration limit	10 g peak			
Shock limit	fragile			
Base strain sensitivity	0.0001 g/ μstrain			
Sensing element design	PZT ceramic / flexure			
Weight:				
731A seismic accelerometer	760 grams			
P31 power unit/amplifier	600 grams			
Interconnect cable, model 731A to model P31	R6-2T-J9-10			

Contact

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Accessories supplied:

- Calibration data (level 3)
- SF7 mounting stud

Note: Special handling required due to sensitivity.

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