



Model 731A/Model P31 system Seismic accelerometer and power amplifier

Dynamic

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 ---
-3Db	0.05 - 100 Hz 0.05 - 450 Hz 0.8 - 150 Hz
Transverse sensitivity, max.....	1% Of axial

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
- Mis-wiring protection

Electrical

Output impedance.....	2500 Ω
Recommended load impedance.....	>250 kΩ
Maximum output voltage.....	5 v peak
Noise:	
Spectral	2 hz.....0.03 µg/√hz
10 Hz.....0.01 µg/√hz	
100 Hz.....0.004 µg/√hz	
Grounding.....	case isolated
Output connector:	
Model 731A.....	2 pin, mil-c-5015
Model P31.....	BNC
Input connector (P31).....	twin axial BNC

Power requirements (P31)

Internal batteries.....	four 9 volt alkaline
Battery life.....	>150 hours

Environmental

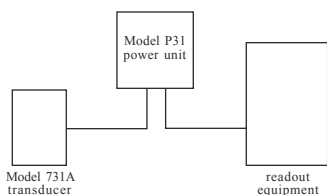
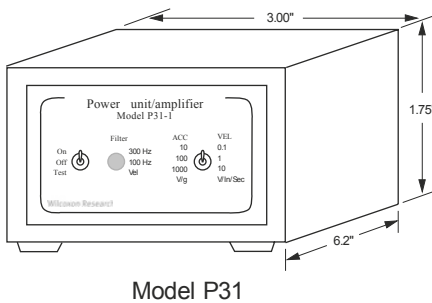
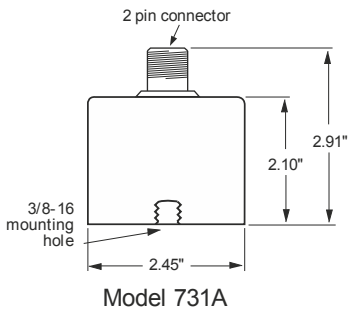
Temperature range.....	-10 to 65° C
Vibration limit.....	10 g peak
Shock limit.....	fragile
Base strain sensitivity.....	0.0001 g/µstrain

Physical

Sensing element design.....	PZT ceramic / flexure
Weight:	
Model 731A seismic accelerometer.....	670 grams
Model P31 power unit/amplifier.....	600 grams
Interconnect cable, model 731A to model P31.....	r6-2t-j9-10

See connections on the back.

Note: Special handling required due to sensitivity
Accessories supplied: SF7 mounting stud; calibration data (level)



Powering with P31 power unit

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