Wilcoxon Research

Model PR710 series
Rack mountable signal conditioners

Features
- 10 channels
- Powers 700 Series accelerometers
- Low noise amplifier for each channel
- Selectable gain of X1, X10 or X100
- Replaceable channel modules
- Continous fault monitoring of each channel
- Optional low or high pass filtering
- Standard 19" rack mountable
- Selectable filtering: no filter, 2-pole butterworth & velocity conversion

Velocity conversion (X1 gain)
Sensitivity of accelerometer = x mV/g
Sensitivity of velocity = (x/10) mV/ips

Velocity conversion gain (ips/g) 0.1
i.e - 100 mV/g will give 10 mV/in/sec with gain switch at X1

	PR710A	PR710B
Input characteristics		
Voltage to transducer	24 VDC	24 VDC
Current to transducer	4 mA	4 mA
Maximum input voltage (gain = 1)	6.5 V rms	6.5 V rms
Output characteristics		
Output impedance	50 Ω	50 Ω
Recommended load impedance	50 kΩ	50 kΩ
Maximum output voltage	6.5 V rms	6.5 V rms
Noise, RTI 2.5 to 25 kHz	‹ 20 µV rms	‹ 5 µV
Spectral noise, input, (nominal) dB/√Hz:		
2 Hz	-140	-140
10 Hz	-150	-150
100 Hz	-150	-150
Transfer characteristics		
Channels	10	10
Gain	1, 10, or 100	1, 10, or 100
Gain accuracy	±0.2 dB	±0.2 dB
Frequency response:		
None, ‹ –3 dB	0.05 - 45,000 Hz	0.05 - 1,000 Hz
Filter, – 3 dB	0.05 - 1,000 Hz	0.05 - 100 Hz
Velocity, – 3 dB	1.0 - 20,000 Hz	1.0 - 1,000 Hz
Amplitude nonlinearity	‹1%	‹1%
Total Harmonic distortion	‹1%	‹1%
Channel separation	› 60 dB	› 60 dB
Power requirements		
Voltage, min	28-30 VDC	28-30 VDC
Current, max.	500 mA	500 mA
Environmental		
Temperature	0 to 55°C	0 to 55°C
Relative humidity, non condensing	5% to 95%	5% to 95%
Usable altitude limit	2,000 meters	2,000 meters
Physical characteristics		
Dimensions	19"W x 5.22"H x 3.7"D	19"W x 5.22"H x 3.7"D
Connectors:		
Signal input	Isolated BNC	Twin axial BNC
Signal output	Isolated BNC	Isolated BNC

Options: Custom gains & filter cutoffs available, and bench mount PR710-stand.
Accessories supplied: A69137 power supply to provide 30 volts DC power to PR710.
From 47-63Hz, 100-250 Vac power.

Wilcoxon Research Inc
21 Firstfield Rd
Gaithersburg, MD 20878
USA

Tel: 301 330 8811
Fax: 301 330 8873
Email: sensors@wilcoxon.com

www.meggitt.com

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