



## PA6

Hydrophone Preamplifier  
Balanced Line Driver

The PA6 is designed to connect passive piezo sensors, used in most hydrophones, to professional-grade microphone preamplifiers. These include preamps that are built into digital recorders, high-quality computer sound interfaces, PA systems, and mixing consoles. The PA6 will also be useful for many other sensors, such as geophones, accelerometers, contact microphones, and any device requiring a low-noise, high-impedance buffer that works within the human auditory spectrum and above.

**Phantom power is required.** 48V is the standard but the PA6 is designed to work with supplies as low as 24V with negligible performance difference.

**NOTE:** This amplifier is not waterproof. Care should be taken to keep connectors and electrical components as dry as possible, especially when working in corrosive environments such as seawater or chlorinated water.

### Specifications:

Default board setup: 26dB gain, differential output, P48 phantom-powered

Equivalent Input Noise:	-120dBV	10nF input shunt, A-weighted 20Hz – 20KHz, 1K $\Omega$ output load
Total Broadband Output Noise:	-88dBV	10nF input shunt, Unweighted 10Hz – 90KHz, 1K $\Omega$ output load
Bandwidth:	14Hz - 90KHz 4Hz - 270KHz	+0/-0.5dB, 1K $\Omega$ output load +0/-3dB, 1K $\Omega$ output load
THD+N:	<0.01%	@1KHz, -60 to -20 dBV input
Max output:	>8dBV RMS	@1KHz, 1K $\Omega$ output load, 1% THD
Current consumption:	8.5 mA 3.4 mA	48V Phantom Power (from mic preamp) 24V Phantom Power (from mic preamp)
Gain:	26dB	Differential: pins 2 & 3 (Standard—can be factory-modified)
Z out:	17 $\Omega$	Each phase to ground
Z in:	10 M $\Omega$	(Standard—can be factory-modified to filter low frequencies)
Physical:	Ø19.7mm x 66.8mm, 42g. (Built on Switchcraft AAA3MZ connector)	

Contact Aquarian Scientific for custom configuration or additional technical support:

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### Warranty

This part is warranted for one year, subject to the general warranty terms and conditions noted on our website.

[www.aquarianscientific.com/warranty.html](http://www.aquarianscientific.com/warranty.html)