

# SLICE-DHV

## Dual-Channel High-Voltage Amplifier

The SLICE-DHV is a SLICE of our Integrated Control Electronics Line: a dual-channel low-noise, high-bandwidth amplifier for controlling piezoelectric transducers. Designed for controlling pzt-driven tuning elements in ECDLs and cavity length control systems, it will interface easily with home-built or 3rd-party laser systems allowing optimum control. The SLICE-DHV features exceptionally high bandwidth for small signals and excellent noise properties making it well-suited to demanding micro-motion & driving applications.



*SLICE-DHV High-Voltage Amplifier*

The SLICE-DHV incorporates switchable gain which allows for full dynamic range control or minimum noise over a smaller range. With our proprietary power supply design we have eliminated the need for a bulky linear supply without sacrificing performance. The SLICE-DHV also features a built-in ramp generator for finding easy location of a lock point.

The Vescent Photonics SLICES of Integrated Control Electronics provide precision photonics control. Individually or working together, SLICE provides the performance you need on your bench top, laser table, or in a rack.



*Control SLICE through the front panel, a GUI, or serial commands*

### Features:

- 2 independent channels
- Switchable gain
- >200 kHz small-signal bandwidth
- <150  $\mu$ V rms noise
- Full range offset control

### Applications:

- PZT control
- Tunable lasers
- Fiber stretching
- Repetition rate control
- Micro-positioning



# SLICE-DHV Performance Specifications

Performance		Units
Channels	2	
Voltage Range	0 to 200	V
Gain	1 or 20	V/V
Current Capacity	$\pm$ 200	mA
Piezo Capacitance	1 to 1,000	nF
Small Signal Bandwidth <sup>1</sup>	200	kHz
Large Signal Bandwidth <sup>2</sup>	10	Hz
Voltage Noise <sup>2,3</sup>	<450	$\mu$ V
Drift	0.2	mV/ $^{\circ}$ C
Accuracy	<100	mV
Ramp Amplitude	Full scale	
Ramp Repetition Rate	>10	Hz
Interface		
Control	Front-panel touch screen, PC-based GUI, API	
Connections	Host control: USB 2.0 Type B	
Power Input	100 - 230 VAC; 50, 60 Hz	

All specifications subject to change without notice.

<sup>1</sup>Depends on capacitance.  $\pm$ 10 V into 10 nF. 500 kHz

<sup>2</sup>Full scale

<sup>3</sup>RMS (1 to 100 kHz)

*SLICE-DHV Two-Channel High-Voltage Amplifier*



*Touch screen for easy set up and control*

*Rotary knob interface allows fast, precise value entry*

*User-assignable front-panel I/O for monitor and interlocking*

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