



High speed DC – 10MHz high voltage laboratory amplifier

- 0V to +130V output voltage
- DC - 10MHz signal bandwidth
- 1400V/ μ s slew rate
- 300mA output current
- 40x gain
- 1:100 monitor out
- Stable with all capacitive loads
- Short-circuit protected output

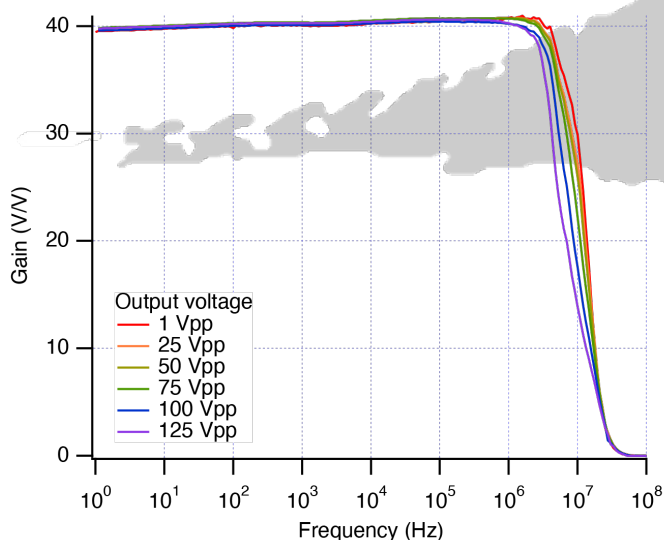


The WMA-300A/130 model is a high speed, high voltage amplifier designed to drive capacitive loads such as piezo actuators, MEMS devices and EO-modulators. Optimized for ultra-high speed, it enables experiments that demand rapidly changing high voltage signals.

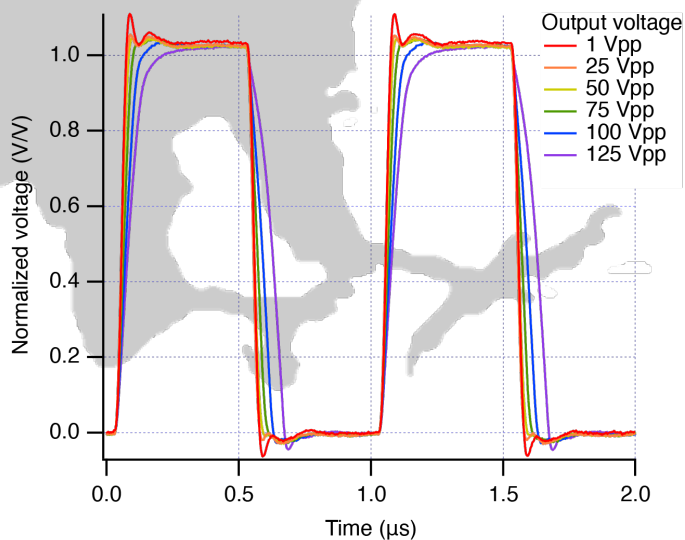
The amplifier has a 50 Ω BNC input to ensure accurate transfer of high-frequency signals like fast-rising steps and pulses. For monitoring and control purposes it is equipped with a monitor output which provides a 1:100 replica of the actual voltage at the output. The high voltage output signal of the amplifier is accessible via the BNC output connector on the front panel.

The unipolar output voltage range of the WMA-300A/130 is primarily tailored to the requirements of piezo stack actuators. These piezos need a relatively high actuation voltage but can often withstand only a limited reverse voltage. Many capacitive MEMS devices such as suspended bridges and comb drive actuators also require only a single polarity voltage for actuation.

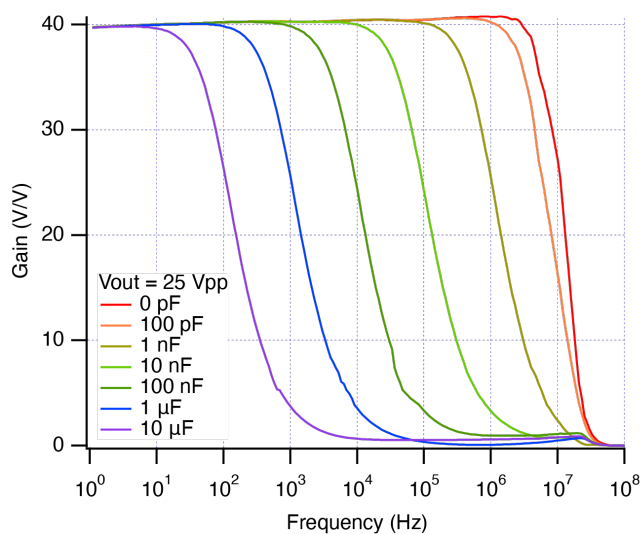
The complete WMA-300A series consists of four different output voltage models, including both unipolar and bipolar versions. This allows the selection of the best fit for every application. A LEMO adapter and other useful accessories are available to easily connect the amplifier to different loads.



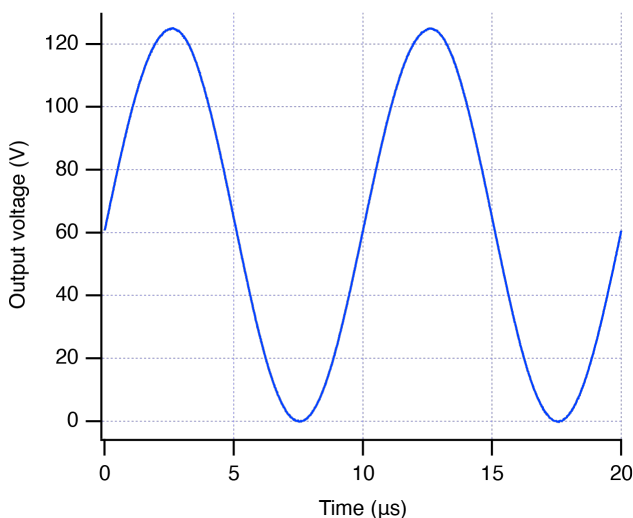
Frequency response



Step response



Frequency response for different capacitive loads



Sine wave full-swing output voltage response

Technical specifications WMA-300A/130 HV amplifier

Output voltage	0V to +130V
Signal bandwidth	DC - 10MHz
Slew rate	1400V/ μ s
Output current	300mA continuous
Amplification	40x, fixed
Noise	~ 2.5 mV _{rms}
Offset	± 100 mV typical
Mains voltage	115V or 230V
Dimensions	175 x 340 x 280mm
Weight	9.3kg
Country of origin	The Netherlands

Specifications may be subject to change



The WMA-300A model is available in 4 product versions:

- WMA-300A/360: -180V to +180V, 1200V/ μ s, 200mA
- WMA-300A/260: -130V to +130V, 1400V/ μ s, 300mA
- WMA-300A/180: 0 to +180V, 1200V/ μ s, 200mA
- WMA-300A/130: 0 to +130V, 1400V/ μ s, 300mA



Falco Systems (est. 2006) is a Netherlands-based innovative company that designs and manufactures technology leading high voltage amplifiers and preamplifiers for R&D departments, research institutes and universities worldwide. These amplifiers are used in precision engineering, electronics, physics, optics, chemistry, (aero)space engineering and metrology and control.