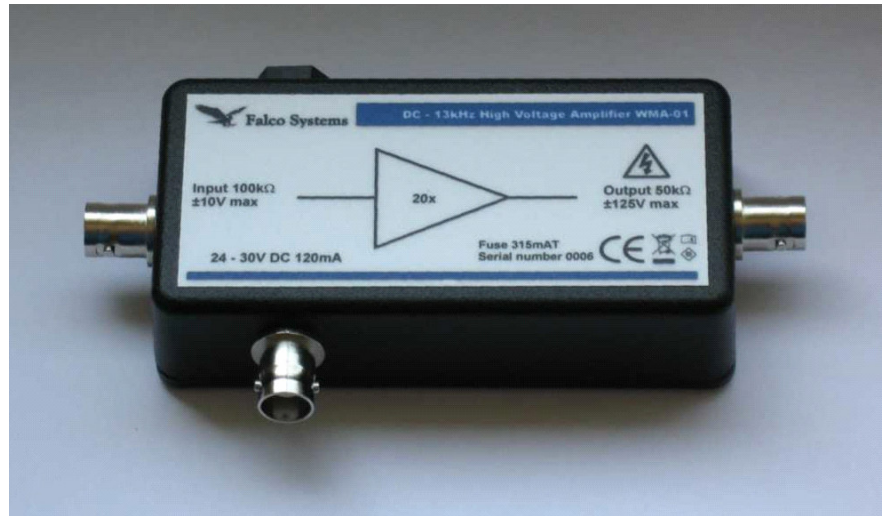


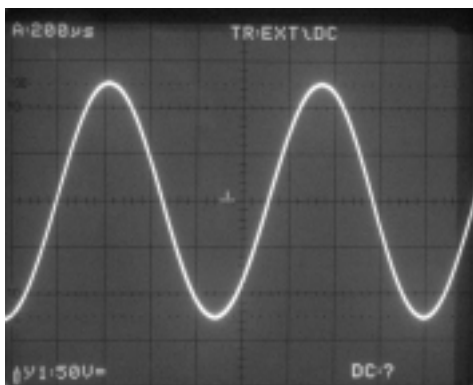
- ✓ -125V to +125V output
- ✓ DC to 20kHz at -3dB full power bandwidth
- ✓ Single power supply 18V – 30V DC, battery power possible
- ✓ 50k Ω output impedance
- ✓ Stable with all capacitive loads, generates no overshoot
- ✓ Short-circuit protected output
- ✓ For MEMS devices, EO-modulators, PZT (piezo) positioning, beam steering, ultrasonic systems, ...



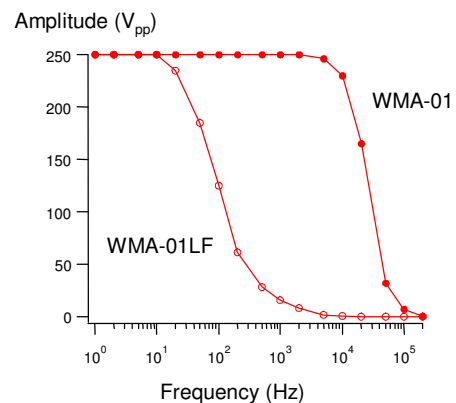
The Falco Systems WMA-01 is a high voltage amplifier that runs from an 18 – 30V DC power supply and can be battery powered if required, e.g. for use in a Faraday cage. Its internal high voltage generator is inductor-free and hence does not spread magnetic interference in sensitive experimental setups. Its large voltage range makes it an excellent choice for use with MEMS devices, EO-modulators, PZT (piezo) positioning systems, beam steering components, and many more.

The amplifiers' full-power frequency response has a -3dB corner frequency at 20kHz. The input impedance is 100k Ω and the output 50k Ω .

The output noise of the WMA-01 is impressively low, at only 3mVrms in the DC - 20kHz full power bandwidth. For even lower noise applications where bandwidth is not an issue, the WMA-01LF amplifier contains an output low pass filter capacitor. This reduces the bandwidth to 50Hz, but makes the noise drop below 0.1mVrms. The bandwidth-limited WMA-01LF is ideal for MEMS or piezo positioning with manual voltage adjustment requiring ultra-low noise. The WMA-01 contains an over-voltage protection for the daily use and abuse in the laboratory and is long-term short-circuit proof. The input, output and DC power supply connections are all standard BNC.



Sine wave 1kHz, 250V_{pp}



Bandwidth WMA-01 and WMA-01LF

Technical specifications

Amplification: 20x, fixed

Bandwidth: DC – 20kHz @ -3dB for WMA-01

Bandwidth: DC – 50Hz @ -3dB for WMA-01LF

Power supply: single 18 – 30V DC, 150mA max, can be battery powered

Output voltage: -125V to +125V

Noise: <3mV rms noise over the full bandwidth typical for the WMA-01, 1.2mV offset typical

Noise: <0.1mV rms noise over the full bandwidth typical for the WMA-01LF, 1.5mV offset typical

Input impedance: 100k Ω

Output impedance: 50k Ω

Stability: stable with all capacitive and resistive loads, generates no overshoot

Fuse: 1x 315mA T 230V

Operating temperature: 5 – 50°C

Storage temperature: 0 – 60°C

Relative humidity: 10 – 90% non-condensing

Dimensions: 50 x 100 x 26 mm excl. BNC's

Weight: 300g

Warranty: 1 year

Country of origin: The Netherlands

Falco Systems

Gelderlandplein 75 L

1082 LV Amsterdam

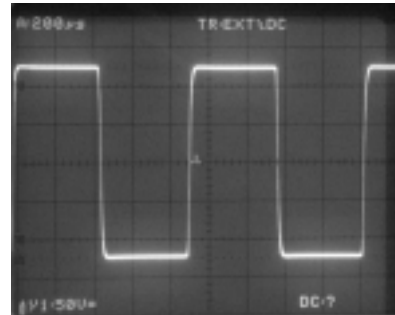
The Netherlands

Tel. +31 (0)6 11164 818

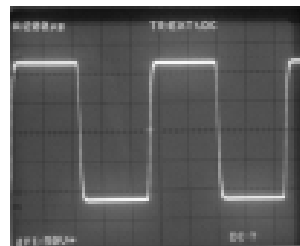
Fax. +31 (0)20 2031445

Email: info@falco-systems.com

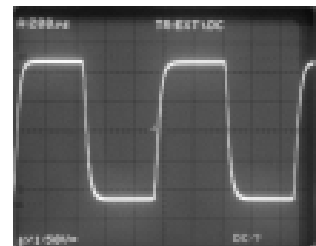
<http://www.falco-systems.com>



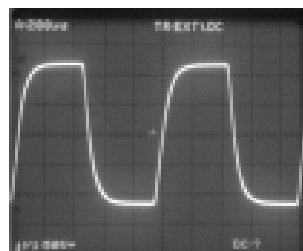
Full-power 1kHz square wave



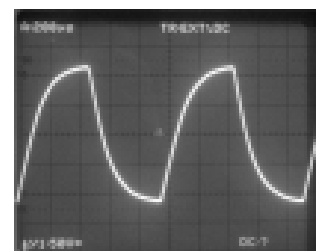
100pF



470pF



1nF



2.2nF

Effect of capacitive loading at 1kHz, 250V_{pp}

More amplifier characteristics can be found in the WMA-01 user manual, online at www.falco-systems.com.