

# GRAS 12AX

4-Channel CCP Power Module  
with Gain



Connection: CCP Channels: 4  
Gain: 0, 20, 40 dB

The GRAS 12AX CCP (Constant Current Power) Supply is a low-noise 4-channel power supply for CCP microphone sets.

## Introduction

The GRAS 12AX is a constant current power module for powering 4 CCP preamplifiers/microphone sets.

It is optimized for integration into a production environment. The anodized enclosure is sturdy and offers good protection against dirt, dust and moisture.

Except for the power switch, it has no external user controls. In this way unintended change of the gain settings is avoided.

## Design

As the 12AX is a 4-channel unit, it has 8 BNC connectors, 4 for the input from the microphones and 4 for the output to the analyzer. All connectors are mounted on the rear panel.

It provides 5 mA of constant current at +28 VDC compliance voltage level.

The gain is selectable individually for each channel by means of jumpers. These are accessible by removing a cover at the top plate. The gain can be set to 0, 20 or 40 dB. The chosen gain is indicated by green LEDs on the front panel.

It has error detection at the input and overload detection at the output. The error detection at the input warns against a DC error, typically a short or a broken connection. The overload detection is applied at the output. If the signal exceeds 22 VAC<sup>P-P</sup>, the overload detection will warn about it. DC error and overload are indicated by red LEDs on the front panel, one for each channel.

It has a low noise floor and a wide frequency range: At 0 dB gain, the noise is 1.5  $\mu$ V and the frequency range from 1 to 300 kHz (+1/-3 dB).

It can handle long cables without significant

degradation of the frequency performance.

It operates from 9 - 18 VDC from a mains voltage adapter which is included.

## Warranty

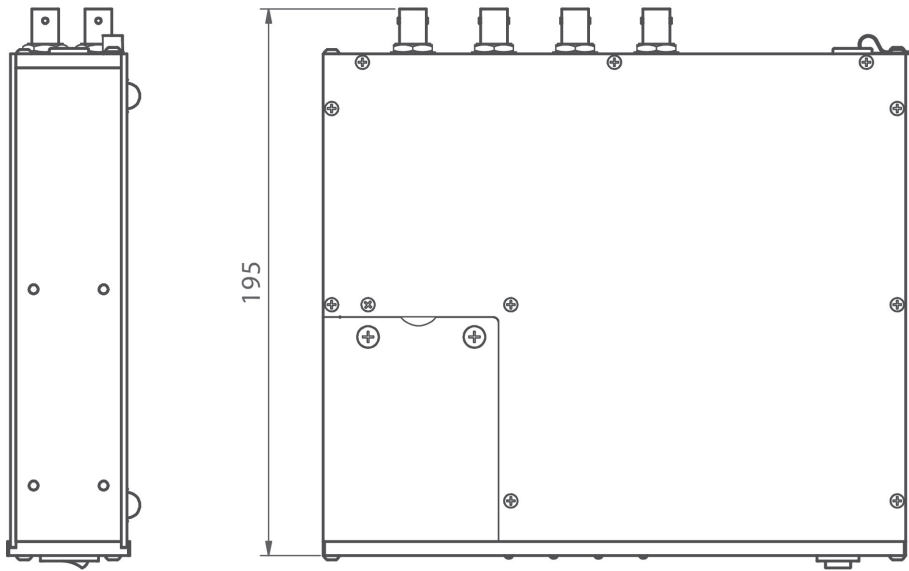
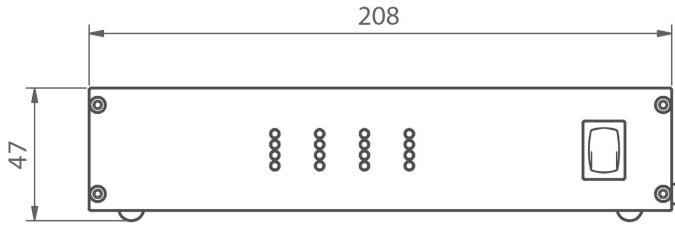
All GRAS products are made of high-quality materials that will ensure life-long stability and robustness. The 12AX is delivered with a 2-year warranty. The warranty does not cover products that are damaged due to negligent use.

## Service and Repairs

All repairs are made at GRAS International Support Center located in Denmark. Our Support Center is equipped with the newest test equipment and staffed with dedicated and highly skilled engineers. Upon request, we make cost estimates based on fixed repair categories. If a product covered by warranty is sent for service, it is repaired free of charge, unless the damage is the result of negligent use or other violations of the warranty.

Frequency response (+1,-3 dB) @ Gain = 0 dB	Hz	1 to 300 k
Frequency response (+1,-3 dB) @ Gain = 20 dB	Hz	1 to 200 k
Frequency response (+1,-3 dB) @ Gain = 40 dB	Hz	1 to 70 k
Output channel(s)		4
Output impedance	$\Omega$	75
Direct coupling input to output		No
Inherent noise (20 to 20 kHz) @ Gain = 0 dB	$\mu\text{Vrms}$	1.5
Inherent noise (20 to 20 kHz) @ Gain = 20 dB	$\mu\text{Vrms}$	15
Inherent noise (20 to 20 kHz) @ Gain = 40 dB	$\mu\text{Vrms}$	150
Gain settings, 20 dB steps	dB	0, 20 and 40
Gain error	dB	$\pm 0.15$ dB
Linear mode		Yes
Type		Constant Current Power (CCP)
Input channel, CCP		4
CCP preamplifier supply @ +28 V	mA	5
Overload indication		Yes
PC controlable		No
External filter option		No
Power amplifier overload detection		No
Power supply, external	Vdc	9 to 18
Battery low indication		No
Weight	g / oz	1100 / 38.8

GRAS Sound & Vibration reserves the right to change specifications and accessories without notice.



GS0716  
12AX 

All dimensions in mm.

## Included items

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	Mains/line power supply
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## Optional items

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RA0321	Rack Mounting Kit (for mounting 2 x 12AX side by side)
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# We Make Microphones

## Tradition

Since the establishment in 1994, GRAS has been 100% dedicated to developing and manufacturing high-quality measurement microphones and related acoustic equipment.

## Innovation

We work with everybody with an interest in sound or noise within the fields of aerospace, automotive, audiology, consumer electronics, noise monitoring, building acoustics and telecommunications.

## Quality

At GRAS we know that in order for you to trust your measurement results; signal quality, stability and robustness are essentials. We design and build them to perform under real life conditions – and beyond.

