

# GRAS 12AX

4 CCP



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

GRAS 12AX CCP

CCP

4



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.



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.



GRAS

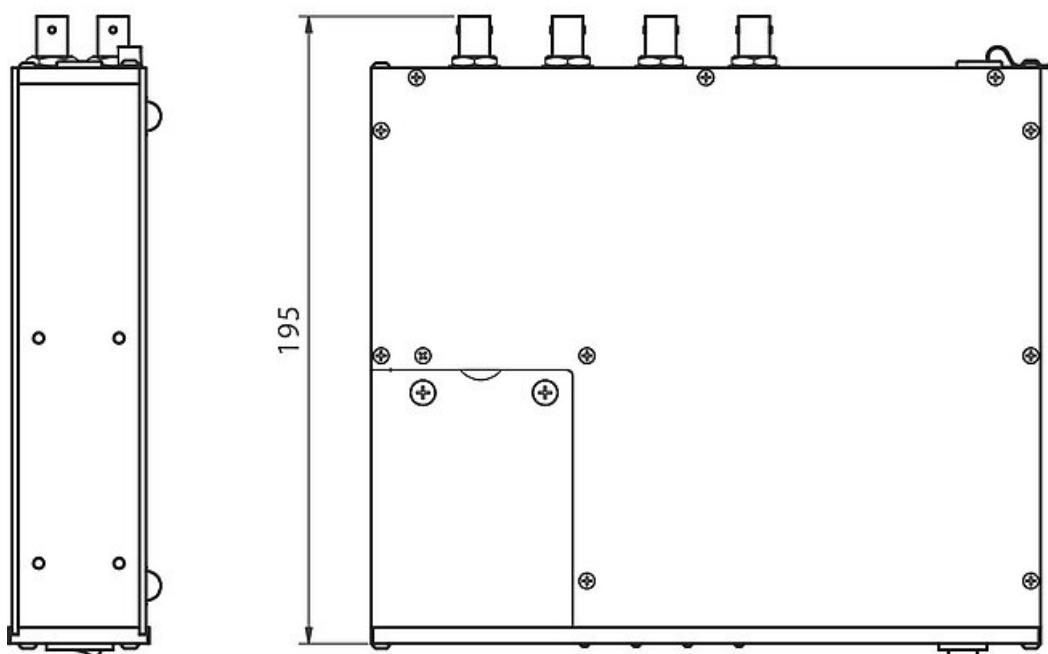
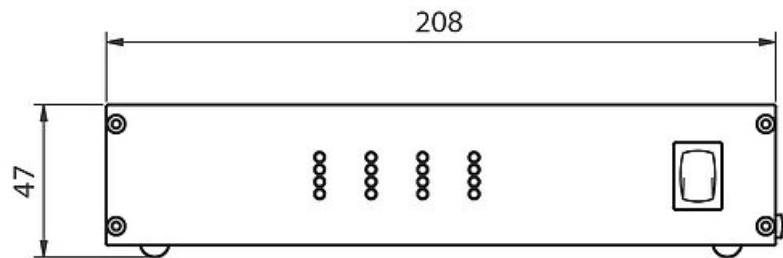
12AX 2



GRAS

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	Ω	75
Direct coupling input to output		No
Inherent noise (20 to 20 kHz) @ Gain = 0 dB	µVrms	1.5
Inherent noise (20 to 20 kHz) @ Gain = 20 dB	µVrms	15
Inherent noise (20 to 20 kHz) @ Gain = 40 dB	µVrms	150
Gain settings, 20 dB steps	dB	0, 20 and 40
Gain error	dB	± 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
Temperature range, operation	°C / °F	-10 to +50 / 14 to 122
Weight	g / oz	1100 / 38.8

GRAS Sound &amp; Vibration



GS0716  
12AX

All dimensions in mm.

□□

:	( )
GRAS AB0002	Power supply 230 VAC to 15 VDC. EU-connector
GRAS AB0006	Power supply 230 VAC to 15 VDC. UK-connector
GRAS AB0003	Power supply 120 VAC to 15 VDC. USA-connector

□□

RA0321	Rack Mounting Kit (for mounting 2 x 12AX side by side)
<a href="#">12AX-S20</a>	12AX Power Module (Excluding Power Supply)

GRAS Sound & Vibration

# GRAS Worldwide

Subsidiaries and distributors in more than 40 countries

## HEAD OFFICE, DENMARK

**GRAS SOUND & VIBRATION**  
Skovlytoften 33  
2840 Holte  
Denmark  
Tel: +45 4566 4046  
[www.GRASacoustics.com](http://www.GRASacoustics.com)  
[gras@grasacoustics.com](mailto:gras@grasacoustics.com)

## USA

**GRAS SOUND & VIBRATION**  
9290 SW Nimbus Avenue  
Beaverton, OR 97008  
Tel: 503-627-0832  
Toll Free: 800-231-7350  
[www.GRASacoustics.com](http://www.GRASacoustics.com)  
[sales-usa@grasacoustics.com](mailto:sales-usa@grasacoustics.com)

## UK

**GRAS SOUND & VIBRATION**  
Unit 115, Gibson House,  
Ermine Business Park, Huntingdon,  
Cambridgeshire, PE29 6XU  
Tel: +44 (0) 7762 584 202  
[www.GRASacoustics.com](http://www.GRASacoustics.com)  
[sales-uk@grasacoustics.com](mailto:sales-uk@grasacoustics.com)

## CHINA

**GRAS SOUND & VIBRATION**  
Room 315, RuiBo Center(T1)  
Lane683, Shenhong Rd,  
Minhang District,  
Shanghai, China, 201107  
Tel: +86 21 64203370  
[www.GRASacoustics.cn](http://www.GRASacoustics.cn)  
[cnsales@grasacoustics.com](mailto:cnsales@grasacoustics.com)



## About GRAS Sound & Vibration

GRAS is a worldwide leader in the sound and vibration industry. We develop and manufacture state-of-the-art measurement microphones and related equipment for industries where acoustic measuring accuracy and repeatability are of the utmost importance. This includes applications and solutions for customers within the fields of aerospace, automotive, audiology, consumer electronics and other highly demanding industries. GRAS microphones are designed to live up to the high quality, durability and accuracy that our customers have come to expect, trust and require. GRAS Sound & Vibration is represented through subsidiaries and distributors in more than 40 countries and is part of Axiometrix Solutions, a leading test solutions provider comprised of globally recognized measurement brands. Read more at [www.grasacoustics.com](http://www.grasacoustics.com)

[grasacoustics.com](http://grasacoustics.com)

**GRAS**  
An Axiometrix Solutions Brand