



G.R.A.S. 12AN 4-Channel Power Module

Connection: Traditional 200 V
Channel(s): 4

The G.R.A.S. 12AN 4-Channel Power Module is a four-channel power module with 7-pin LEMO 1 B connectors for externally polarized measurement microphone sets. The inputs are AC-coupled directly to the outputs for a flat frequency response down to 0.05 Hz. It provides the basic features for powering condenser measurement microphones. The polarization voltage can be selected to 200 V for externally polarized microphones or 0 V for prepolarized microphones. The supply voltage for the preamplifiers is ± 15 V.

Technology

Typical Applications and Use

The special features of the 12AN Power Module makes it suitable for general use.

The 12AN Power Module is for general use in acoustic measurements both in the laboratory and in the field. If you are looking for a cost-effective solution or a multi-channel power module with a direct coupling (no filters) to the output, the 12AN Power Module is a logical choice.

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SOUND & VIBRATION

The input signal is coupled to the output without any filtering or A-weighting network.

Because of this, the 12AN Power Module is ideally suited for infra-sound measurements. The low-frequency cut-off at 0.05 Hz is so low that it will not be the limiting factor in infra-sound measurements. A suitable microphone system for this application is the combination of the [G.R.A.S. 40AN 1/2" Free-field microphone, low frequencies](#) and the matching preamplifier, the [G.R.A.S. 26HG 1/4" Preamplifier, High Impedance](#).

The polarization voltage is very stable and the sensitivity of the microphone is therefore kept very stable. For this reason, the 12AN Power Module is well suited for microphone calibration.

The 12AN Power Module has four channels for multi-channel measurements and calibration setups requiring more than one channel. You can operate the 12AN Power Module on batteries or an external DC power supply. A battery indicator monitors the battery condition.

Compability

The 12AN Power Module can be used with all standard, externally polarized microphone sets and standard front ends or data acquisition units.

However, when setting up a measurement chain with the 12AN Power Module, you need to ensure proper matching of the components so that signal levels and cable lengths do not interfere with the validity of your measurements.

Quality and warranty

The 12AN Power Module is built into a sturdy, anodized aluminum case and built to high-quality standards which enables G.R.A.S. to offer 2 years warranty against defective materials and workmanship.

Service

Before leaving the factory, all G.R.A.S products are tested. Should a power module become defective, it can be sent to GRAS for repair.

Specifications

CONDITIONING		.
Frequency response (± 0.2 dB)	Hz	0.05 to 200 k
Output channel(s)		4
Type		Traditional power supply (LEMO)

Input channel(s), traditional power supply		4
Preamplifier supply	V	+/-15
Polarization voltage	V	0 / 200
POWER SUPPLY		.
Power supply, battery		4 x LR6 (AA)
Power supply, external	Vdc	6 to 20
Power consumption	mA	130
Battery life	h	25
Battery low indication		Yes
Fuse	mA	160
Weight	g / oz	1,200 / 42,329

G.R.A.S. Sound & Vibration reserves the right to change specifications and accessories without notice.



We make Microphones

Tradition

Since the establishment in 1994, G.R.A.S. has been 100% dedicated to developing and manufacturing high-quality measurement microphones and related acoustic equipment. G.R.A.S. was founded by the Danish acoustics pioneer Gunnar Rasmussen who for more than 60 years has contributed to the world of sound and vibration with his unique ideas and designs. From the first reproducible 1" condenser measurement microphone that enabled quality measurements and instrumentation for acoustic calibration, Mr. Rasmussen's ingenuity and foresight led to the world's most popular acoustic sensor: The 1/2" measurement microphone. Then the 1/4" and 1/8" microphones followed with outstanding dynamic and high-frequency capability that brought higher definition and transparency into impulse noise diagnostics. Many variants have been made available over the years; all based on Gunnar Rasmussen's original 1" pressure microphone design.

Innovation

At G.R.A.S., we and our customers benefit daily from Mr. Rasmussen's exceptional understanding of acoustics, physics, electronics and measurement needs. Not only in R&D but throughout the organisation, we are proud to develop, produce and offer the broadest range of high-quality measurement microphones and accessories in the industry. And as a family company, now owned and managed by the two sons, Per Rasmussen and Peter Wulf-Andersen, we safeguard our heritage and knowledge to help create new opportunities with our customers. 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, metrology, education, consultancy, legislation and system integration.

Quality

At G.R.A.S. we know that in order for you to trust your measurement results; signal quality, stability and robustness are essentials. And because we also know how you handle and use the microphones in your daily work, we design and build them to perform under real life conditions – and beyond.

When developing measurement microphones, our R&D team uses a series of highly accelerated life tests (HALT) to ensure that our microphones live up to the high quality and precision our customers have come to expect and trust. Thus to simulate the handling and use a microphone is exposed to when working outside the lab – in real life situations - we bake it, we humidify it, we shake it and we try to break it - all to make sure that you can trust your measurement results - every time.

All our microphones are solely produced in stainless steel and in a quality that allows for a 5 year warranty. Should you by mistake damage the diaphragm on a G.R.A.S. microphone, our special technique enables repair at very reasonable price.

Partners

G.R.A.S. is represented worldwide in more than 40 countries by subsidiaries and distributors. Whether you are searching for a multi-channel solution or just a replacement microphone for your sound level meter G.R.A.S. will help solve your needs. Visit gras.dk for your local G.R.A.S. partner.