

GRAS 26AJ

1/2" SysCheck Preamplifier with integrated connector



Freq range: 2.5 Hz - 200 kHz
Noise: 1.8 μ V
Gain: -0.35 dB
Special feature: SysCheck

The GRAS 26AJ 1/2-inch Preamplifier with SysCheck is a small robust unit optimised for acoustic measurements using condenser microphones. It has a very low inherent noise level, a wide dynamic range and a frequency response from below 2 Hz to above 200 kHz.

Typical applications and use

Precision measurements

Low-pressure measurements

General-purpose preamplifiers

Design

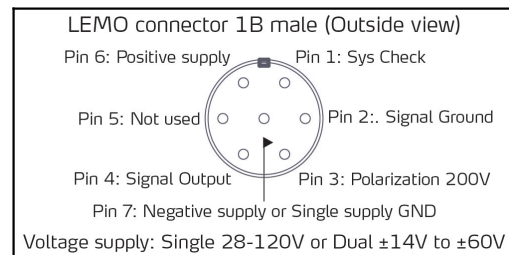
All GRAS microphone preamplifiers are based on a small ceramic thick-film substrate with a very high input impedance. The ceramic substrate is shielded by a guard ring to minimise the influence of stray capacitance and microphonic interference. The casing is made of stainless steel for maximum strength and durability. The small dimensions of the 26AJ ensures reliable operation under humid conditions owing to the heat generated by internal power dissipation. A 1/4" alternative is available, [GRAS 26AL](#). GRAS 26AJ has SysCheck for easy remote verification of the measurement chain. It allows you to send a test signal to an RC network in the preamplifier. This signal is applied to pin 1 of the 7-pin LEMO cable/connector. SysCheck does not result in a signal proportional to the microphone's sensitivity, but it gives you a way to determine whether your system is stable. SysCheck cannot replace a proper acoustic calibration of the microphone.

Compatibility

The preamplifier is compatible with 1/2" microphones as defined in international standard IEC1094 Measurement Microphones, Part 4: Specifications for working standard microphones. The mounting thread (11.7 mm - 60 UNS-2) is compatible with other available makes of similar microphone preamplifiers.

Connector

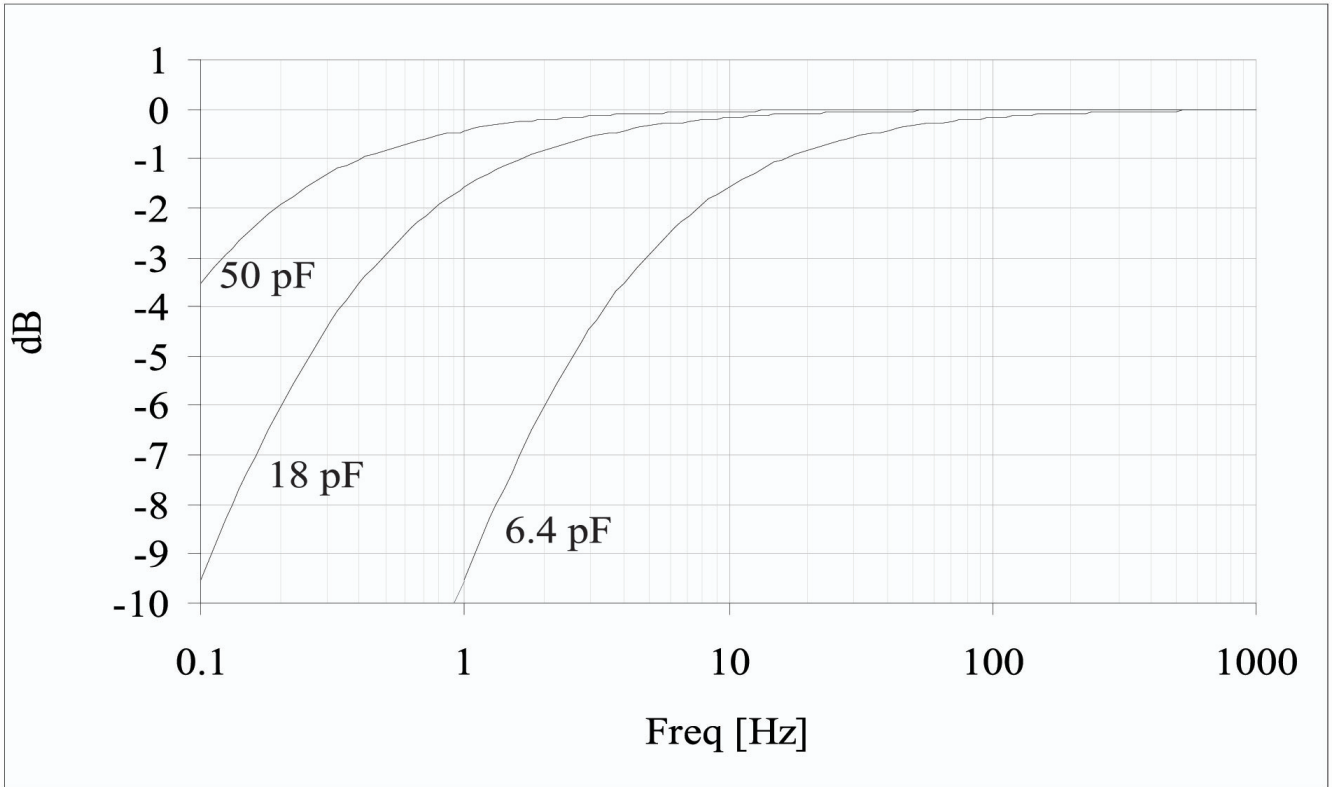
26AJ has an integrated 7-pin LEMO series 1B connector.



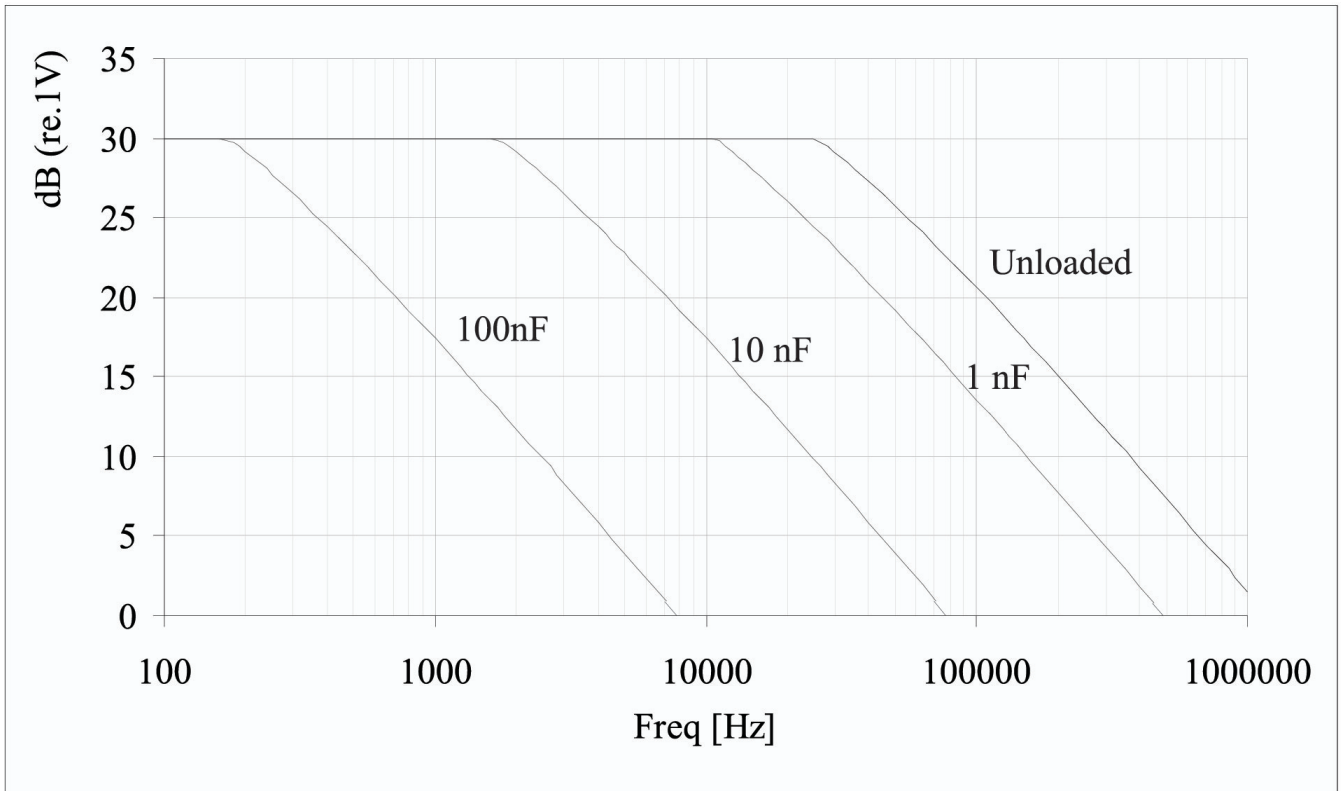
7-pin LEMO 1B male (ext. view)

Frequency range (± 0.2 dB) with 18 pF microphone dummy	Hz	2.5 to 200 k
Slew rate	V/ μ s	20
Input impedance	G Ω // pF	20 // 0.4
Output impedance	Ω	75
Output Voltage Swing, max. @ ± 14 V/+28V power supply	V _p	12
Output Voltage Swing, max. @ ± 60 V/+120V power supply	V _p	50
Noise (A-Weighted) max.	μ V	2.5
Noise (A-Weighted) typ.	μ V	1.8
Noise (Linear 20 Hz – 20 kHz) max.	μ V	6
Noise (Linear 20 Hz – 20 kHz) typ.	μ V	3.5
High-pass filter @3dB cut-off	Hz	TBD
Gain	dB	-0.35
Power supply, single	V	28 to 120
Power supply, balanced	V	± 14 to ± 60
DC-offset, min., single supply	V	$0.5 \times V_s - 1$
DC-offset, max., single supply	V	$0.5 \times V_s + 4$
DC-offset, balanced supply	V	-1 to 4
Temperature range, operation	$^{\circ}$ C / $^{\circ}$ F	-30 to 70 / -22 to 158
Temperature range, storage	$^{\circ}$ C / $^{\circ}$ F	-40 to 85 / -40 to 185
Humidity range non condensing	% RH	0 to 95
Connector type		7-pin LEMO (FGG.1B.307)
CE/RoHS compliant/WEEE registered		Yes / Yes, Yes
Weight	g / oz	35.0 / 1.24

Conditions: 23 $^{\circ}$ C Ambient temperature, ± 60 V/+120V power supply, 18 pF dummy microphone, 3 m output cable.



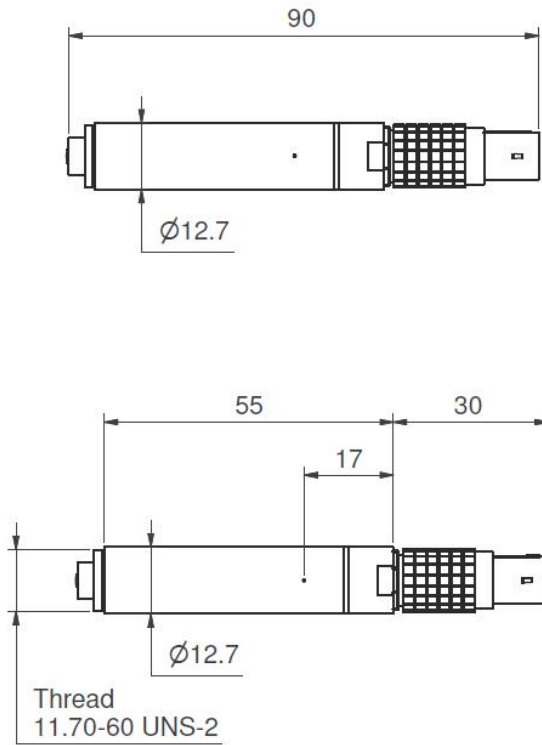
Low frequency response for various microphone capacities



Max. RMS output signal for various cable loads with 120 V supply

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

Dimensions in mm



Optional items

GRAS AA0008	3 m LEMO 7-pin - LEMO 7-pin Cable
GRAS AA0020-CL	Customized Length LEMO 7-pin - LEMO 7-pin Cable
GRAS AL0008	1/2" Microphone Holder, POM
GRAS AL0012	1/2" Microphone Holder, Stainless Steel
GRAS AL0005	Swivel head
GRAS AL0006	Tripod
GRAS RA0019	Adapter for 1/4" microphone and 1/2" preamplifier
GRAS RA0073	Adapter for 1" microphone and 1/2" preamplifier
GRAS RA0190	Right-angled (90°) Adapter for 1/2" Microphone and 1/2" Preamplifier
GRAS RA0016	20 dB Attenuator for externally polarized 1/2" microphones
GRAS RA0062	20 pF Preamplifier-input Adapter for 1/2" preamplifiers
GRAS 12AA	2-Channel Power Module with gain, filters and SysCheck generator
GRAS 12AQ	2-Channel Universal Power Module with signal conditioning and PC interface

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GRAS Worldwide

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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 to industries where acoustic measuring accuracy and repeatability is of utmost importance in R&D, QA and production. This includes applications and solutions for customers within the fields of aerospace, automotive, audiology, and consumer electronics. GRAS microphones are designed to live up to the high quality, durability and accuracy that our customers have come to expect and trust.

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