

½-inch Preamplifiers Types 26AG, -H, -J, -K and -M

Product Data and Specifications

Typical applications

- Precision measurements
- Low-pressure measurements
- General-purpose preamplifiers

The G.R.A.S. ½-inch Preamplifiers Types 26AG, 26AH, 26AJ, 26AK and 26AM are small robust units optimised for acoustic measurements using condenser microphones. They have a very low inherent noise level, a wide dynamic range and a frequency response from below 2 Hz to above 200 kHz.

All G.R.A.S. 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 these preamplifiers ensure reliable operation under humid conditions owing to the heat generated by internal power dissipation.

These preamplifiers are compatible with ½-inch microphones as defined in international standard IEC 1094 *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.

Preamplifier Type 26AM (Fig. 1) is provided with a 3 m high-quality cable terminating with a 7-pin LEMO series 1B plug (Fig. 5).

Preamplifier Type 26AH is similar to 26AM but has a built-in SysCheck capability. This enables *in-situ* checks of the complete measurement chain from



Fig. 1 ½-inch preamplifiers with cable; Types 26AH and 26AM



Fig. 2 ½-inch preamplifiers with integrated plug; Types 26AG, 26AJ and 26AK

microphone to analyser. The SysCheck technique works by modulating the microphone polarisation voltage.

Preamplifier Type 26AK (Fig. 2) is integrated with a 7-pin LEMO series 1B plug.

Preamplifier Type 26AJ is similar to 26AK but comes with the SysCheck facility.

Preamplifier Type 26AG is similar to type 26AK but with insert-voltage calibration facility for determining open-circuit sensitivity of condenser microphones.

Cables for Types 26AK, 26AG and 26AJ, and extension cables for Types 26AH and 26AM are available in lengths of: 3 meters (AA0008), 10 meters (AA0009), 30 meters (AA0012) and 100 meters (AA0014). Special lengths (AA0020-xx) can be made to order.

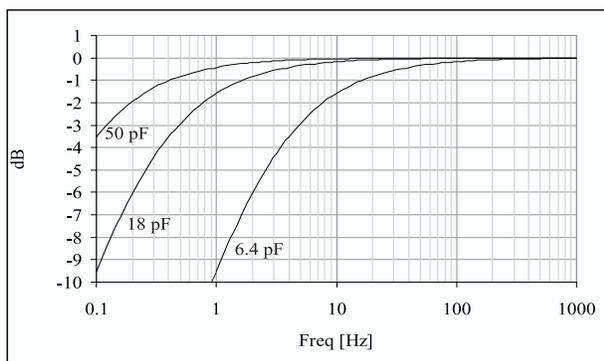


Fig. 3 Low frequency response for various microphone capacities

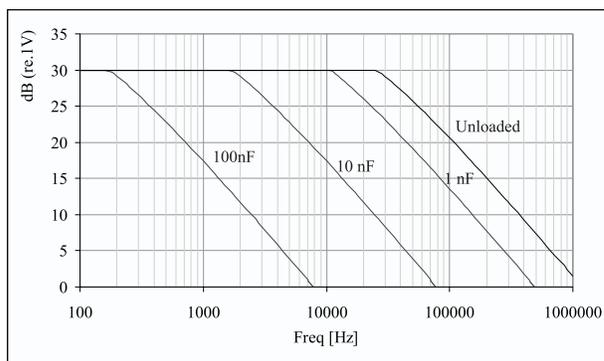


Fig. 4 Max. rms output signal for various cable loads with 120 V supply

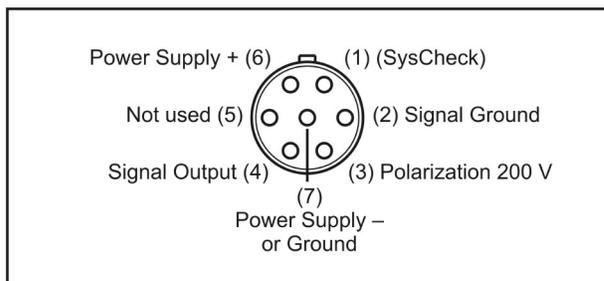


Fig. 5 7-pin LEMO plug 1B male (ext. view)

Specifications

Frequency response (18pF/small signal): 2 Hz - 200 kHz ±0.2 dB	Storage: -40°C to +85°C
Input impedance: 20 GΩ, 0.4 pF	Relative humidity: Operation: 0 to 95% Storage: 0 to 95%
Output impedance (Cs = 20 pF, f=1000Hz): Typical 55 Ω	Dimensions (ex. cable): Diameter: 12.7 mm (½-inch) Length: 77.5 mm (3.05 inches) Weight: 33 g (1.1 oz)
Noise (measured with 20 pF ½-inch dummy mic.): A-weighted: ≤2.2 μV rms (typically 1.8 μV rms) Linear (20 Hz - 20 kHz): ≤6 μV rms (typically 3.5 μV rms)	Accessories available: AA0008: 3 m extension cable (7-pin 1B LEMO) AA0009: 10 m extension cable (7-pin 1B LEMO) AA0012: 30 m extension cable (7-pin 1B LEMO) AA0014: 100 m extension cable (7-pin 1B LEMO) RA0017: 1-inch to ½-inch adaptor for use with G.R.A.S. 1-inch microphones RA0019: ¼-inch to ½-inch adaptor for use with G.R.A.S. ½-inch microphones
Gain: Typical: -0.25 dB	
Power supply: Single: 28 V (0.7 mA) to 120 V (2.5 mA) Dual: ±14 V (0.7 mA) to ±60 V (2.5 mA)	
Maximum signal-output voltage (peak): from ±10 V to ±50 V	
Temperature: Operation: -30°C to +70°C	

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