

½-inch CCP Preamplifier with gain and filters Type 26CF

Product Data and Specifications

Features and applications

- **0 dB and +20 dB gain settings**
- **Linear, A-weighting and high-pass filter (20 Hz) settings**
- **CCP¹ inputs**
- **Prepolarized microphones**
- **½-inch precision microphones**
- **High levels and high frequencies**

The G.R.A.S. ½-inch Preamplifier Type 26CF (Fig. 1) is a general purpose preamplifier optimised for use with prepolarized condenser microphones. It is a small, robust unit and uses a G.R.A.S. CCP¹ power supply, e.g. Type 12AL. It has low inherent noise level, a large dynamic range and a frequency response from 2.5 Hz to 100 kHz.

Gain and filter switch settings

There are two flush-mounted switches for selecting various combinations of gain and filtering, i.e.:

Gain switch settings:

- 0 dB - for normal microphone signals.
- +20 dB - for boosting weak microphone signals.

Filter switch settings:

- A-Weighting** - as required in standard measurements.
- Linear** - to let the microphone signal pass unfiltered.
- High-pass** - to cut off unwanted low frequencies.

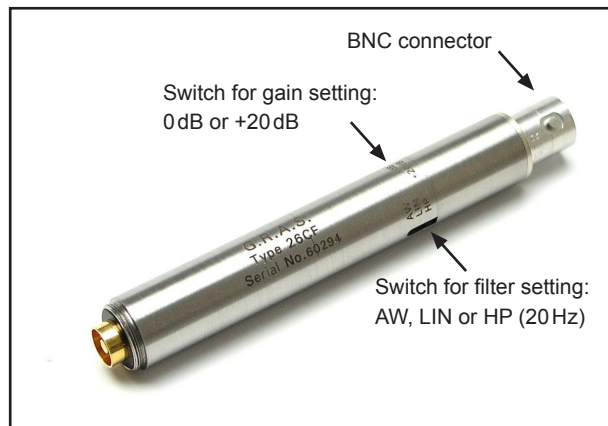


Fig. 1 ½-inch Preamplifier Type 26CF

The frequency responses of the A-weighting filter is shown in Fig. 2.

Its small ceramic thick-film substrate has a very high input impedance, and is shielded by a guard ring to minimise the influence of stray capacitance and microphonic interference.

The Type 26CF can be used with all G.R.A.S. prepolarized microphones, namely:

- ½-inch microphones:
Types 40AE, 40AD and 40AQ
- ¼-inch microphones:
Types 40BE and 40BD, using the optional ½-inch to ¼-inch adaptor RA0019

It has an integrated BNC output connector.

The casing is made of stainless steel for maximum strength and durability.

¹ CCP stands for “Constant Current Power” and describes G.R.A.S. power supplies that maintain a constant level of current for driving IEPE transducers like this preamplifier which can be used with prepolarized microphones such as Types 40AD, 40AE, 40AO and 40AQ.

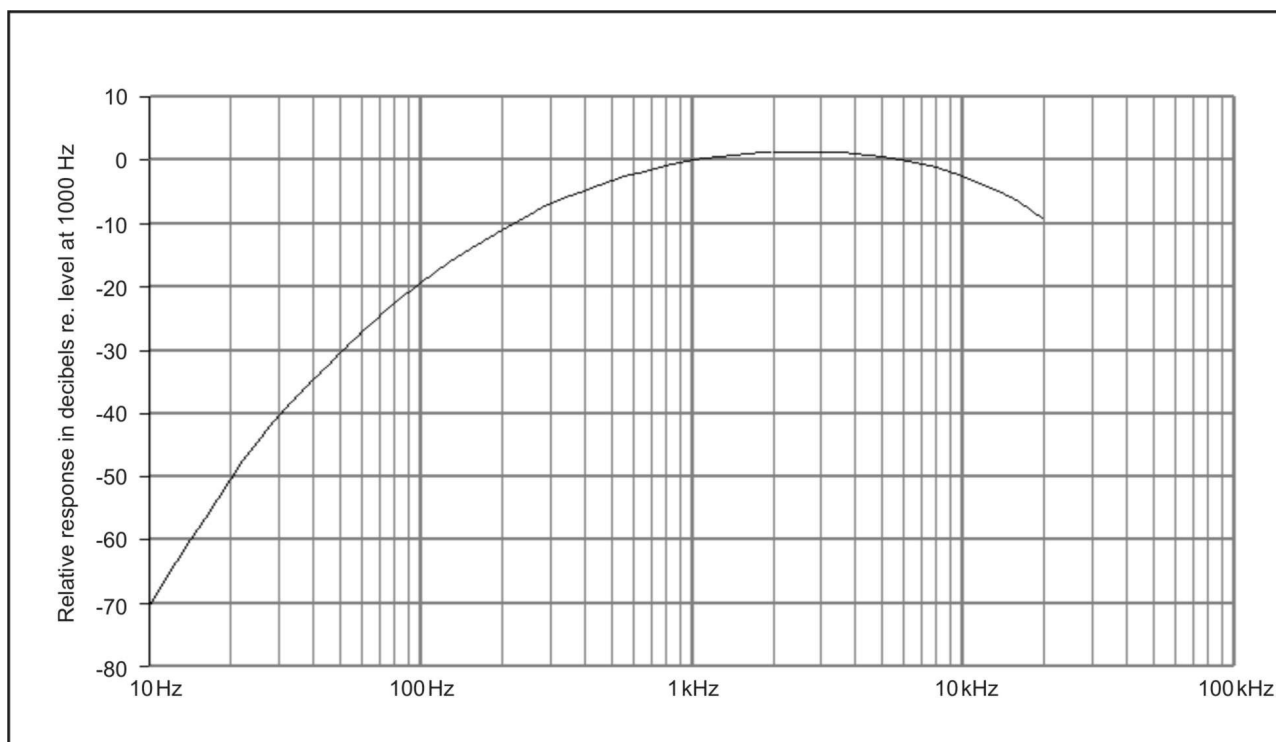


Fig. 2 Frequency response of A-weighting filter shown graphically (compliant with IEC 61672-1 Class 1)

Specifications

<p>Frequency response (cable load 4.7 nF): 2.5 Hz - 100 kHz: ±0.2 dB (typical for 0 dB gain and linear setting)</p> <p>Input impedance: 20 GΩ, 0.4 pF</p> <p>Output impedance (Cs = 20 pF, f=1000Hz): < 50 Ω</p> <p>Noise (measured with 20 pF ½-inch dummy mic.): Linear, 0 dB: typically 8 μV rms Linear, 20 dB: typically 65 μV rms A-weighted, 0 dB: typically 10 μV rms High pass, 0 dB: typically 10 μV rms</p> <p>A-weighting filter: Compliant with IEC 61672-1 Class 1</p> <p>High-pass filter: 3-pole butterworth, -3 dB at 20 Hz</p> <p>Gain: Typically: -0.25 dB</p>	<p>Power-supply: 4 mA to 20 mA (typically 4 mA)</p> <p>Maximum signal-output voltage (peak): ±5.0 V</p> <p>Temperature: Operation: -30°C to +70°C Storage: -40°C to +85°C</p> <p>Relative humidity: Operation: 0 to 95% Storage: 0 to 95%</p> <p>Connector type: BNC</p> <p>Dimensions and weight: Diameter: 12.7 mm (½-inch) Length: 92 mm (3.6 inches) Weight: 30 g (1 oz)</p>
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G.R.A.S. Sound & Vibration reserves the right to change specifications and accessories without notice

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