

67AX 1/2" CCP Ground Array Microphone Set

Product Data

The G.R.A.S. 67AX 1/2" CCP Ground Array Microphone Set consists of a 1/2" precision pressure microphone with built-in CCP preamplifier, a Ø400 mm mounting plate, and an adapter for a BNC cable.

The microphone set is designed to sit asymmetrically in the mounting to attain a more uniform frequency response for measurements.

- The microphone is a IEC 61094 prepolarized pressure microphone with a dynamic range from 22 dB to 146 dB and a frequency range from 3.15 Hz to 20 kHz. Its height of only 8 mm (to the diaphragm) is the ideal match for the design of the 67AX.
- The built-in preamplifier is a low noise constant current power (CCP) type, with a built-in TEDS circuit for automatic transducer identification.



Fig. 1 An unmounted 47AX-S1, the microphone used in the 67AX.

Main Features

- Complete setup for a ground array design: microphone, preamplifier, and mounting plate
- Built-in TEDS that supports IEEE 1451.4

Typical Applications

- Ground array measurements
- General noise measurements
- Ideal for the aerospace industry

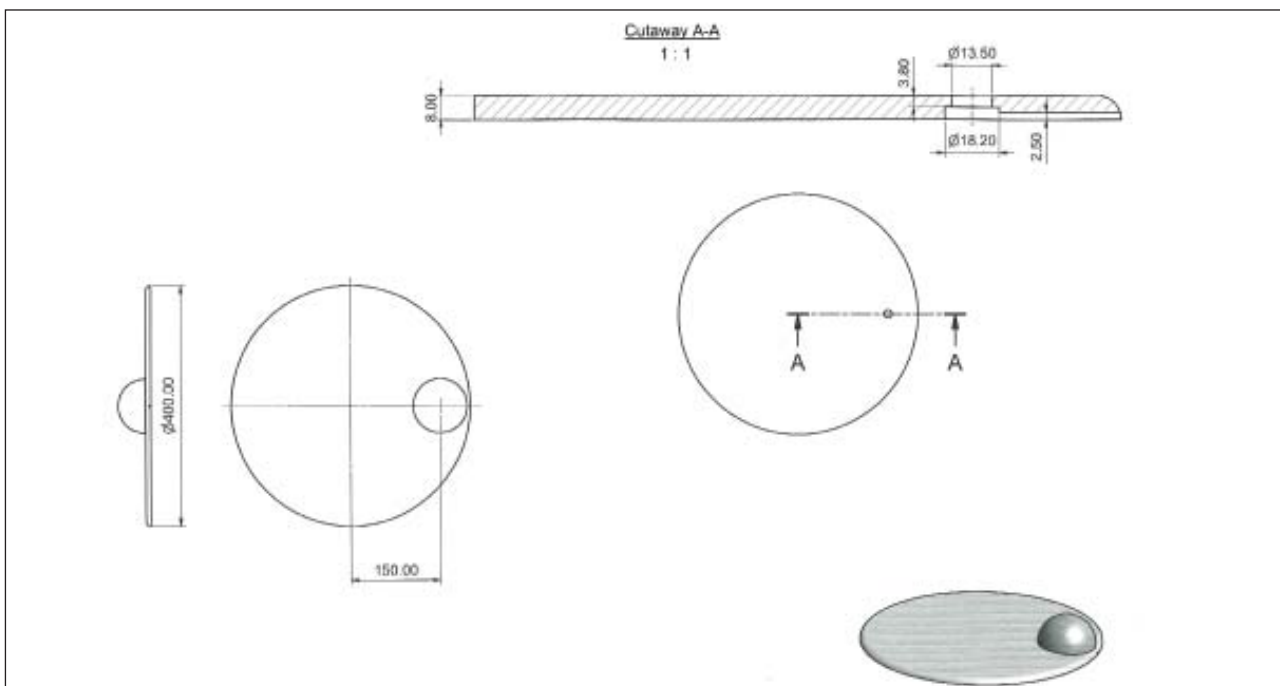


Fig. 2 Diagram showing the placement of the microphone in the plate with the windscreen on top. The cutaway of section A to A shows how the microphone fits into the plate.

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Specifications

Microphone specifications for 47AX-S1

Frequency response

3.15 Hz – 20 kHz..... ±2.0 dB
5 Hz – 12.5 kHz..... ±1.0 dB

Nominal sensitivity

at 250 Hz..... 12.5mV/Pa

Polarization voltage 0 V

Dynamic range

Upper limit (3% distortion) ..146 dB re. 20 µPa
Thermal noise..... 22 dB(A) re. 20 µPa

Temperature

Operation.....-30 °C to +70 °C
Storage..... -40 °C to +85 °C

Static-pressure coefficient

250 Hz/25 °C -0.008 dB / kPa

Humidity (non-condensing)

Range 0 – 100 % RH
Influence (250 Hz) <0.1 dB (0 – 100 %RH)
Influence of axial vibration equivalent to 1 m/s²
..... 66 dB re. 20 µPa
Venting..... Rear-vented

Plate and set specifications

Mounting Plate

.....Ø400 mm

Dimensions

Microphone Ø13.20 mm
Preamplifier Ø18.00 mm
Microphone set height
Without grid 8 mm
With grid..... 9.20 mm
Weight..... 15 g

Ordering Information

67AX Ground Array Microphone Set includes

- 47AX-S1 1/2" CCP Flush-mounted microphone with 50 mm cable
- GR1425 Ground plate Ø400 mm
- AM0375 Special Windscreen for 67AX
- AA0069 3 m Microdot-angle-to-BNC cable

Accessories (order separately)

- RA0216 Pistonphone field-verification adapter
- RA0221 Pistonphone calibration adapter

Important: These adapters are designed for use with a 250 Hz pistonphone, such as the G.R.A.S. 42AP Pistonphone. Do not use them with any other calibrator or verification device. The 250 Hz pistonphone can be used for both calibration and daily verifications.

Microphone Set Calibration

Before leaving the factory, the microphone set has been tested and calibrated by G.R.A.S., and an individual test certificate is included. The calibration information is also stored in the built-in TEDS.

G.R.A.S. Sound & Vibration continually strives to improve the quality of our products for our customers; therefore, the specifications and accessories are subject to change.