





Outer diameter: 90 mm Hole diameter: 12 mm Material: Foam AM0069 contains 5 spherical windscreens for 1/2" microphones optimized for sound pressure measurements under free-field conditions.

GRAS Sound & Vibration Skovlytoften 33, 2840 Holte, Denmark www.grasacoustics.com

GRAS

## Technology

## Introduction

The AM0069 contains 5 spherical windscreens specially designed and optimized for use with 1/2" microphone sets for sound pressure measurements under free-field conditions, e.g. in situations where the wind comes from more and unpredictable directions. The windscreen is mounted by pushing it as far as possible over the microphone and preamplifier.

## Design

When a microphone is placed in a laminar flow, turbulence is created which in turn results in unwanted pressure variations on the diaphragm. By using a windscreen these pressure variations are moved as far away from the diaphragm as possible.

Theoretically this supports a "the-bigger-the-better design", but in practice it is a compromise between air speed reduction, practical size and self-induced noise. Self-induced noise is wobble-noise which is generated, when the windscreen starts moving around the microphone.

The GRAS windscreens are all size optimized and their special, open-cell foam structure and number

of pores per inch<sup>2</sup>(ppi), are designed to resist a humid environment and at the same time not influence the sound pressure measurement result significantly.

Frequency dependent attenuation is to be expected if the windscreen gets wet. Therefore windscreens are not intended as rain protection of the microphone.

## Alternatives

If longer duration of outdoor monitoring is required, we suggest that you look for the GRAS semipermanent and permanent outdoor microphone solutions:

- GRAS <u>41AC-3</u> CCP Outdoor Microphone for Community & Airport Noise
- GRAS <u>41AC-4</u> LEMO Outdoor Microphone for Community and Airport Noise (0 V pol.)

If the turbulence reduction is not sufficient for your type of measurement, we suggest the intensity measurement technique that suppresses background noise effectively. GRAS has a wide range of 2D, 3D and wide-frequency intensity probes supporting both CCP and LEMO input modules, see <u>GRAS Intensity Probes</u>.

If you need to make sound pressure measurements in a well-defined laminar airflow, e.g. in a windtunnel, we suggest that you look for GRAS nosecones. Alternatively look for our surface microphones, our new flush-mounted microphone concept or our turbulence screen.

## **Quality and Warranty**

On consumables like batteries, cables and windscreens we offer a 6 month warranty.





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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 and related equipment for industries where acoustic measuring accuracy and repeatability are of the utmost importance. This includes applications and solutions for customers within the fields of aerospace, automotive, audiology, consumer electronics and other highly demanding industries. GRAS microphones are designed to live up to the high quality, durability and accuracy that our customers have come to expect, trust and require. GRAS Sound & Vibration is represented through subsidiaries and distributors in more than 40 countries and is part of Axiometrix Solutions, a leading test solutions provider comprised of globally recognized measurement brands. Read more at www.grasacoustics.com



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