

# GRAS 26AK-S1

1/2" Preampifier with Integrated Connector, Low Frequency



Freq range: 2.5 Hz to 200 kHz  
Noise: 1.8  $\mu$ V Gain: -0.25 dB  
Special feature: Low frequency applications

The 26AK-S1 is a 1/2" microphone preampifier with integrated 7-pin LEMO male connector and 40 G input impedance.

## Introduction

GRAS26AK-S1 is a preamplifier designed for general purpose in the laboratory and field and accommodates directly for all IEC 61094 standardized ½" externally polarized measurement microphones.

It is rugged and reliable and can handle microphone signals up to 50 V<sub>peak</sub> within 2 Hz to 200 kHz. The printed circuit board is made by use of thick-film substrate technology and optimized with respect to maximum suppression of microphonics and moisture rejection.

The high-quality, standard 7-pin LEMO male connector is integrated into the preamplifier and ensures that only one type of connector and cable is required for both connection and extension.

26AK-S1 is factory calibrated individually and delivered with a calibration chart stating its A-weighted and linear self-noise.

## Compatibility

These preamplifiers are compatible with 1/2-inch 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.

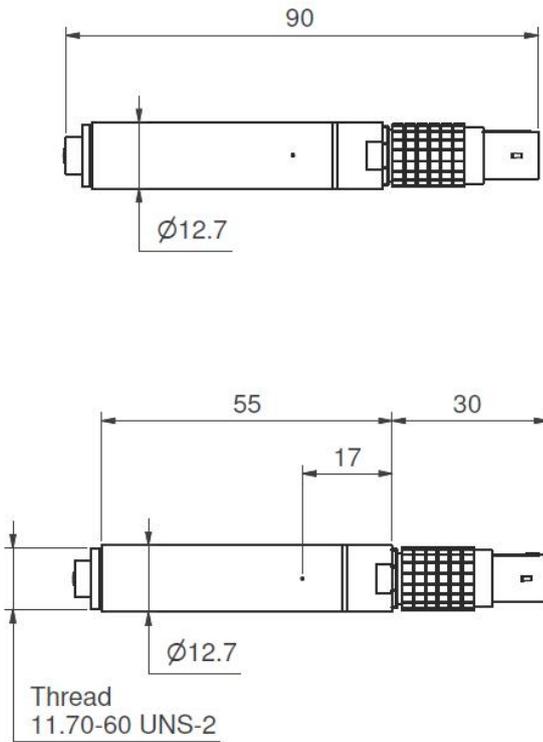
GRAS 26AK-S1 is integrated with a 7-pin LEMO series 1B plug.

|   |                             |                         |
|---|-----------------------------|-------------------------|
| Frequency range ( $\pm 0.2$ dB) with 18 pF microphone dummy | Hz                          | 0.5 to 200 k            |
| Slew rate   | V/ $\mu$ s                  | 20                      |
| Input impedance   | G $\Omega$ // pF            | 40 // 0.4               |
| Output impedance  | $\Omega$                    | 75                      |
| Output Voltage Swing, max. @ $\pm 14$ V/+28V power supply   | V <sub>p</sub>              | 12                      |
| Output Voltage Swing, max. @ $\pm 60$ V/+120V power supply  | V <sub>p</sub>              | 50                      |
| Noise (A-Weighted) max.                                     | $\mu$ V                     | 2.5                     |
| Noise (A-Weighted) typ.                                     | $\mu$ V                     | 1.8                     |
| Noise (Linear 20 Hz – 20 kHz) max.                          | $\mu$ V                     | 6                       |
| Noise (Linear 20 Hz – 20 kHz) typ.                          | $\mu$ V                     | 3.5                     |
| Gain  | dB                          | -0.25                   |
| Power supply, single  | V                           | 28 to 120               |
| Power supply, balanced                                      | V                           | $\pm 14$ to $\pm 60$    |
| 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,  $\pm 60$ V/+120V power supply, 18 pF dummy microphone, 3 m output cable.

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

Dimensions in mm



## Optional items

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

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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](http://www.grasacoustics.com)

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