



AS11 Selective Monitoring Microphone

AS11 selective monitoring microphone

The monitoring probe AS11 is a handy device which is designed to detect and subjectively evaluate airborne sound signals. It has a 30cm long flexible directional microphone. Headphones are connected to the output jack on the rear. Power is supplied from an internal rechargeable battery, which is located in the hand grip. The rechargeable battery is accessible and can easily be changed by unscrewing the rear tube of the grab handle. Amplifier and filter is integrated into the hand grip. There is only one single cable connection between microphone and headphones! This makes the device a fully integrated one hand operation detector.

After switching on, the green power LED indicates full battery charge. Below 3,5 volts, the brightness decreases very rapidly and at 3 volts it lights only extremely weak indicating the need for recharging or exchanging the battery pack.

There are 2 amplifier gain ranges; 30 and 60 dB. The volume on the headphones is adjusted with the integrated pot on the control panel (11 positions).

With the second pot on the control panel, the center frequency for the 1/3rd octave or 1/1 octave band pass filter could be selected between 31Hz and 8.000Hz. The filtered signal then is amplified by 20dB. Signals, recorded by the directive microphone, are filtered and amplified on the headphones. The output jack allows connection to other signal analyzers or recorders. This signal is equal to the headphone signal.

The Selective Monitoring Microphone AS11 offers:

- Robust, flexible directional microphone
- Headphone amplifier
- Working with internal battery
- One-hand operation
- Tunable 1/3rd and 1 octave band pass filter

Application

- Airborne noise measurements
- Machine diagnostics
- Sound source localization
- Leakage detection

TECHNICAL DATA:

Frequency range of microphone:	30 Hz - 18 kHz
Max. output voltage:	4 Vpp
Distortion:	<1% at 1 kHz und 4 Vpp
Power supply:	4,8V rech. battery, operating 10 h
Dimensions (DxL):	35Ø x 550 mm
Weight incl. battery:	350 gr



AS-10

Professional Microphone for Acoustical Quality Assurance

AS-10

The AS-10 is a compact professional microphone which is used to hear and to evaluate airborne noise. It has a length of 30cm and is equipped with a goose neck with a length of 30 cm. To the output receptacle at the back a headphone can be connected. The power supply is realized with a 9V block battery, which is located on the backside of the device. The battery can be changed by unscrewing the rear tube. After unscrewing the battery can be accessed and changed.

After the device is switched on, the green operation LED is lit. The unit offers two amplification ranges with 30dB and 60dB.

The volume fine adjustment for the headphone is performed with the latching potentiometer (11 positions) on the user panel.

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The brightness of the LED decreases if the battery voltage drops below 8V. At 7V the LED is weak. At this time the battery should be changed immediately. Up to this supply value all specifications are kept operative. The only exception is the maximum output voltage.

PROPERTIES:

- Flexible goose neck microphone
- Headphone amplifier
- Operated with an integrated battery
- Single-handed operation

APPLICATIONS:

- Measurement of airborne noise
- Engine diagnostics
- Locating noise sources
- Detection of acoustical disturbance sources

SPECIFICATIONS

General	
Acoustical operating principle	pressure-gradient transducer
Directional pattern	cardioide
Front to back ratio	20 dB
Frequency response	see diagram
Pressure sensitivity @ 1000Hz	approx. 50mV/Pa
Source impedance	1000 Ohm +/- 40%
Total harmonic distortion @ 28Pa (123dB) SPL	< 3%
Range of supply voltage	0,8...15 V
Current consumption	< 0,2 mA

SPECIFICATIONS

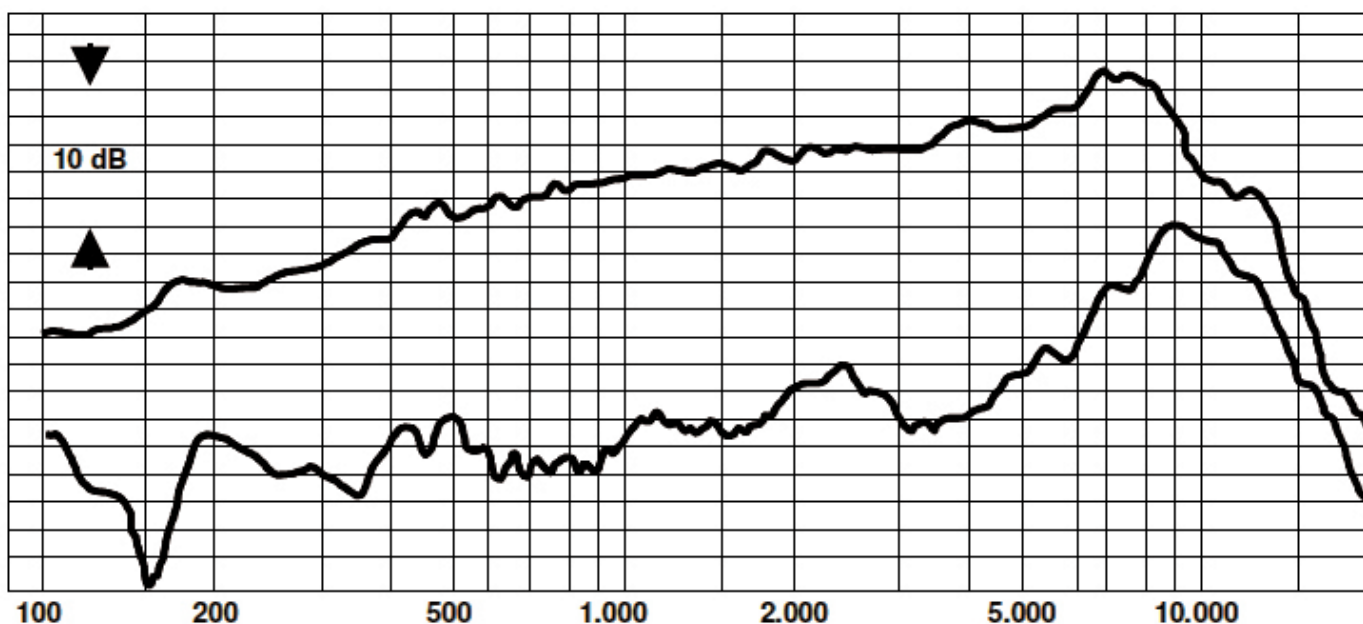
Operating Conditions	
Temperature storage	min. -25°C, max. +60°C
Temperature operation	min. -20°C, max. +55°C
Relative humidity	20°C/99%, 60°C/95%

Dimensions

Diameter x Length	350 x 490 mm
Weight incl. battery	350 g

FREQUENCY RESPONSES

- @ 0° and 180° angle of incidence



ROGA RECOMMENDATION

For professional applications of the AS-10 the use of a professional headphone is recommended. Roga Instruments offers the Beyer DT 770 Pro headphone with the necessary Lemos connector (0B-2-pin).



HEADPHONE AMPLIFIER: SPECIFICATIONS

General	
Frequency response (-3dB):	30 Hz - 18 kHz
Output voltage max.	4 Vpp
Total harmonic distortion:	<1% @ 1kHz and 4Vpp
Output impedance:	50 Ohm in line with 10µF
Power supply:	9V battery
Current consumption:	approx. 7mA with closed headphone amplifier input; approx. 15mA max.
Duration of battery operation:	approx. 12h - 15h, depending on the adjusted loudness and on the type of battery