




## Measuring microphone with amplifier

03543.00

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 The unit complies with the corresponding EC guidelines.

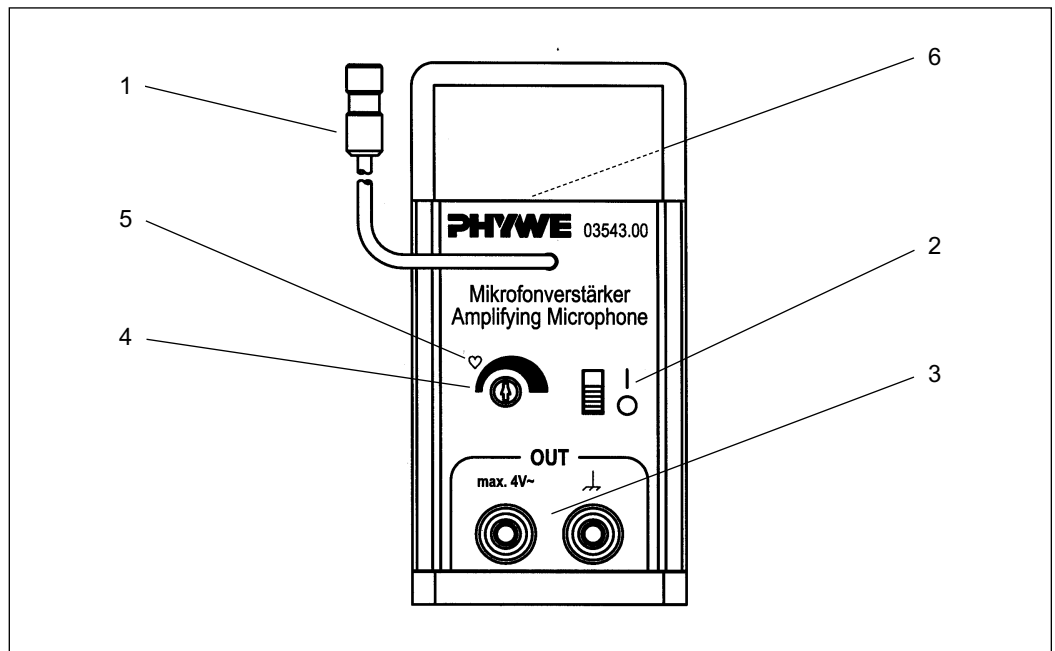


Fig. 1: Front view of Measuring with amplifier 03543.00

### Operating Instructions

#### 1 SAFETY PRECAUTIONS



- Carefully read these operating instructions before operating this instrument. This is necessary to avoid damage to it, as well as for user-safety.
- Do not start up this instrument should there be visible signs of damage to it.
- Only use the instrument for the purpose for which it was designed.

#### 2 PURPOSE

This measuring microphone is designed for acoustic investigations, such as the pointwise measuring out of sound fields and the reception of acoustic signals.

#### 3 DESCRIPTION

- 1 Microphone capsule with approx. 1.5 m connecting cable.
- 2 On/off switch: I = on, O = off.

**Caution! The microphone must be switched off after use, otherwise the battery will be unwantingly exhausted.**

- 3 Output: Two 4 mm sockets, from which the amplified measurement signal can be picked up.



#### Caution!

When the microphone is connected to an electronic timer or interface timer, e.g. Timer 1/2 of the Cobra3 Basic Unit

(12150.00), which is stopped by rising TTL signals, then the yellow signal socket of the microphone must be connected to the grounded socket of the timer and the white grounded socket of the microphone with the „stop“ signal socket of the timer. In other words, the polarity of the microphone should be reversed against the corresponding timer inputs!

- 4 Amplifier setting, continuously adjustable from 0 to 1000 times, effective on the amplitude of the signal.
- 5 The heart symbol indicates that, when measuring heart and vascular sounds, an amplification in the lower region (near to the left stop) should be selected.
- 6 Battery compartment for a 9 V block battery (IEC 6F 22), closed by a plastic cover. Please check the correct polarity when inserting a battery.



#### Caution!

The output is not proof against feed in of external current, i.e. never connect a voltage to the output of the microphone!

#### 4 NOTES ON OPERATION

This high-quality instrument fulfills all of the technical requirements that are compiled in current EC guidelines. The characteristics of this product qualify it for the CE mark.

This instrument is only to be put into operation under specialist supervision in a controlled electromagnetic environment in research, educational and training facilities (schools, universities, institutes and laboratories).

This means that in such an environment, no mobile phones etc. are to be used in the immediate vicinity. The individual

connecting leads are each not to be longer than 2 m.

The instrument can be so influenced by electrostatic charges and other electromagnetic phenomena that it no longer functions within the given technical specifications. The following measures reduce or do away with disturbances:  
Avoid fitted carpets; ensure potential equalization; carry out experiments on a conductive, earthed surface, use screened cables, do not operate high-frequency emitters (radios, mobile phones) in the immediate vicinity.

## 5 SPECIFICATIONS (typical for 25°C)

Operating temperature range 5...40°C

Relative humidity < 80%

Converter	Electret capsule, at the tip of the probe
Frequency range	30...20000 Hz, $\pm 2$ dB (15 Hz...30 Hz and 20 kHz...40 kHz with reduced sensitivity)
Sensitivity of the microphone capsule	6.0 mV/Pa at 1 kHz, $\pm 4$ dB
Amplification	approx. 0...1000, phase correct to the acoustic signal
Directional characteristic	Spherical
Modulation:	4 V <sub>SS</sub> connected to an instrument with R <sub>L</sub> $\geq 3$ k $\Omega$
Power supply:	9 V block battery (IEC 6F 22) (07496.10) or accumulator
Power consumption:	5 mA typically
Battery service life:	approx. 30 hours
Housing dimensions (mm)	60 x 120 x 25 (W, H, D)
Weight	approx. 0.15 kg

## 6 GUARANTEE

We guarantee the instrument supplied by us for a period of 24 months within the EU, or for 12 months outside of the EU. This guarantee does not cover natural wear nor damage resulting from improper handling.

The manufacturer can only be held responsible for the function and technical safety characteristics of the instrument, when maintenance, repairs and changes to the instrument are only carried out by the manufacturer or by personnel who have been explicitly authorized by him to do so.

## 7 WASTE DISPOSAL

The packaging consists predominately of environmental compatible materials that can be passed on for disposal by the local recycling service.



Should you no longer require this product, do not dispose of it with the household refuse. Please return it to the address below for proper waste disposal.

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