Technical Data:

Power supply:	4x 1.5 V mignon-cells or accumulation cells or external power suppyl 6 V / 500 mA, P3120-6N
4 mm-safety bush:	Output voltage: max 2V eff, +/- 3 V ss
Internal resistance:	500 Ω
Frequency area:	50 - 12000 Hz guaranteeed; Qualititative measurements are possible for more than 20 kHz
Max. sound pressure:	110 dB
Amplifing stages:	1/3/10/30/100 x = 0/10/20/30/40 dB
Power consumption:	30 mA
2.5 mm- safety bush:	for external power supply
Dimensions:	ca. 160 x 120 x 45 mm
Housing:	ABS plastics housing
Weight:	ca. 970 g

Recommended accessory:

P3120-6N Mains transformer 6V / 500 mA for supplying P3127-1V High-voltage power supply 0 - 18 kV from mains source 230 V~ / 50 - 60 Hz

Take care that the device does not fall. In the event that this does occur, have the device examined or repaired by authorized service personnel.

In the event that unforeseen difficulties arise during operation, switch off the device and contact the dealer.

Do not subject the device to dripping or sprayed water.

Use only fuses of the type and current rating indicated.

The device contains no components requiring maintenance on the part of the user (except for replacing batteries).

This device may only be operated by qualified personnel or by persons they instruct in its use.

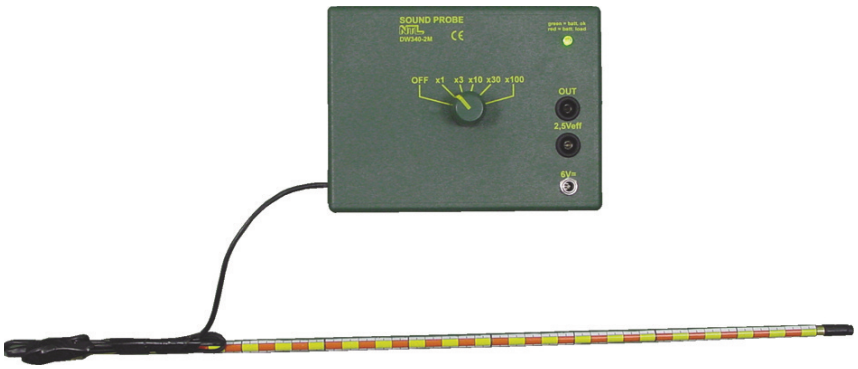
Fruhmann GmbH - 7343 Neutal, Austria

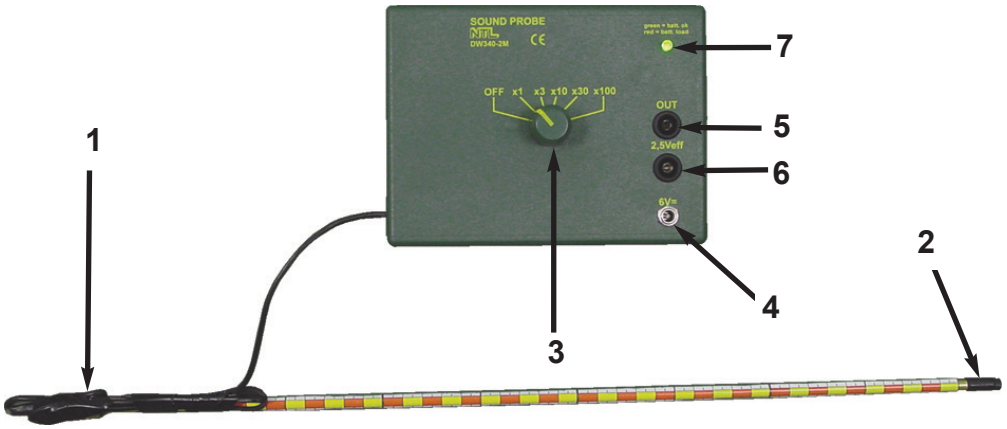
Measuring microphone “inno“ DW340-2M

The measuring microphone “inno“ measures local sound events both quantitatively and qualitatively in student - and demonstration experiments.

Due to the small dimensions of the measure head, measurements are also possible at spots which are hard to reach.

The display of measurements is made due to an AC - voltmeter, an oscilloscope or a counter like DE722-1F





1	Tube with measuring microphone
2	Measuring microphone
3	Stage switch for OFF- and amplifiersettings
4	2.5 mm safety input-bush for external 6 V power supply
5	4 mm-safety bush high-voltage output
6	4 mm-safety bush high-voltage output
7	Controll-LED for power supply
	4 magnets on the backside

Usage

The outputs (5, 6) of the measuring microphone “inno“ are protected against short-circuit.
The choice of the amplifier stages is done with the stage switch (3).
The following amplifier-levels can be chosen:
1/3/10/30/100 x = 0/10/20/30/40 dB. With this stage switch the device is also turned ON and OFF.

Attention: The measuring microphone can either be overdriven at the microphone as well as at the amplifier. In both cases this results in wrong measurements.

Especially connected frequency-measurements devices are likely to show much bigger frequencies.

The sound pressure acting on the microphone should not be higher than 110 dB. Such intensities are only happening near speakers. They can be easily seen on the oscilloscope , since a sine-shaped soundwave is showing recesses on the peak.

In this case the intensity is to be reduced or the distance from the microphone to the sound source should be increased.

Overdriving the amplifier resulst into curves at the oscilloscope, it proves he
lpful to use a small amplification with the stage switch.

The device is supplied with power through 4 1.5V AA-batteries.
If cells with a capacity of 3 Ah are used, a lifetime of about 10 hours is given to the batteries. If the device is not used for several months, the batteries should be removed from the device , to ensure that they are not damaging the device.
The device can also be supplied withpower by Mains transformer 6V/500 mA DC (P3120-6N).