

ES12
Electronic
Stethoscope

Electronic Stethoscope ES12 for locating sound sources.

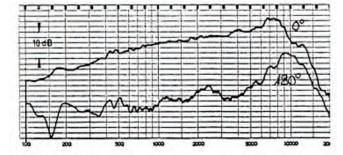
The system contains a directional microphone MI10, a monitor amplifier AV14, dynamic headphones, an accelerometer and a carrying case.

#### Use

- Acoustic and Vibration Measurements
- Source Location
- Machine Diagnosis

# Scope of delivery

- 1-Channel Monitor Amplifier and Charge Amplifier AV14
- AC Adapter, 100-240 VAC / 12 VDC
- 1/4" Directional Microphone MI10
- Accelerometer
- Headphone KH10
- · Carrying Case
- Manual



# MI10 Directional Microphone

## Features

- Shapely matt black plastic housing and swan neck
- Built-in windscreen
- Background noise elimination
- Functional small and handy design

TECHNICAL DATA MISO	
TECHNICAL DATA MI10	
Acoustic mode of operation:	Pressure gradient receiver
Directional characteristic:	Cardioids
Backward noise elimination:	20 dB
Frequency range:	see Diagram
Open circuit sensitivity at 1000Hz und 5	<b>V</b> 7,2 mV/PA ±3 dB
Impedance:	1000 Ω ±40 %
Distortion at 28 Pa, (123dB) SPL:	< 3 %
Operating supply voltage:	0,8 – 15 V
Current consumption:	< 0,2 mA
Storage:	min25 °C, max. +60 °C
Operation mode:	min20 °C, max. +55 °C
Humidity range:	20°C / 99%, 60°C / 95%
Swan neck thread:	M10x1
Length:	455 mm
Weight:	арргох. 130 д
Cable:	2 m, Ø 2,7 mm

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### **AV14 Monitor Amplifier**

The 1-channel charge amplifier AV 14 has been constructed mainly to monitor acoustic and vibration signals. It has a measuring channel for an electret condenser microphone or a piezoelectric accelerometer. The switching over from the accelerometer to the microphone comes automatically, when the microphone mini-jack is plugged in At the output socket you get a voltage proportional to the acceleration or sound pressure independent of the amplification of the headphone amplifier. So the instrument can be used as a front end for analyzers or similar instruments.

### **Features**

- electret condenser microphone Inpu
- Piezoelectric accelerometer input
- · Adjustable Headphones output

Piezoelectric accelerometer input:

**TECHNICAL DATA AV14** 

Dimensions (W  $\times$  H  $\times$  D):

Weight with batteries:

Safety standards:

• Preamplifier Function (additional output)

Microphone input:	LEMO Serie 00
Frequency response hp-amp.:	–3 dB between 30 Hz – 20 kHz
Max. Output voltage hp-amp.:	4 Vss*) at 150 Ω
Distortion factor:	< 1 % bei 1 kHz and 4 Vss
Output socket headphone:	3.5 mm stereo jack
Output socket measuring ampl.:	BNC (on rear panel)
Max. output voltage:	5 Vss
Output Impedance:	50 $\Omega$ in series with 10 $\mu F$
Max. Impedance:	> 10 kΩ, < 10 nF
Frequency response:	–3 dB between 1 Hz – 30 kHz
Microphone power supply voltag	<b>e:</b> 5,6 V via 8,2 kΩ
Sensitivity (Piezoelectric accelerom	<b>eter):</b> 1 mV/pC or 10 mV/pC, ±2 %
LED "Supply Voltage":	green
LED "Charging" (rear):	red
Supply rechargeable battery:	9 V
Supply extern:	9–15 V DC
Battery Charge:	12–14 V, арргох. 14 h
Current Consumption:	5 to 15 mA
Battery operating time:	ca. 10–30 h
Operating temperature range:	+/- 0°C to +50°C
Cabinet material:	Aluminium

### KH10 Dynamic Headphone

KH10 is a closed dynamic headphone and it is designed for critical music and sound monitoring in an open environment. The headphone features a frequency response of 5 Hz to 30 kHz and is equalized to the diffuse sound field.

The single-sided 3 m connecting cable is equipped with an in-line volume control for optimum set-up. It is fitted with a gold-plated mini stereo plug (3.5 mm) with a 1/4" (6.35 mm) adapter and is therefore suitable for use with almost all headphone amplifiers.

The rugged headband construction has been strengthened to give the headphone a very secure fit, matched with mechanical reliability. Soft ear pads that are easy to clean and adjustable, sliding earpieces ensure listening comfort during extended periods of use.

#### **Features**

Microdot

55 × 25 × 100 mm

IEC61010, EMC EN55103-1, EN55103-2

ca. 250 a

- · Closed diffuse field headphone
- Excellent ambient noise attenuation (≥ 35 dB A)
- Superb audio quality with high sound pressure level (105 dB)
- · Robust spring steel headband
- Single sided cable (straight cable, 3 m long) with in-line volume control
- Gold plated jack plug (3.5 mm) and adapter (6.35 mm)

Dynamic
Closed
nse: 5 - 30.000 Hz
80 $\Omega$ per cartridge
105 dB
< 0,2%
100 mW
Circumaural
≥ 35 dBA
<b>ire:</b> approx. 6,5 N
300 g
3 m / straight cable
Gold plated stereo jack plug (3.5 mm)
and 1/4" adapter (6.35 mm)

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