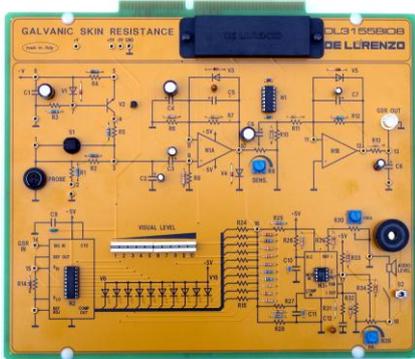




## GALVANIC SKIN RESISTANCE



DL 3155BIO8

At the passage of an electrical current, the skin shows a resistance that is normally within the 100 kOhm to 1 MOhm range. Such resistance decreases during periods of emotional stress. The changes of the resistance are particularly significant on the palm of the hands and on the plant of the feet. Moreover, the surface of the skin shows an electrical potential, that can reach up to 50mV and that can equally be influenced by emotional states.

This board does not substitute the medical device under study. The results of the experiments have no medical value. They are just for demonstration purposes.

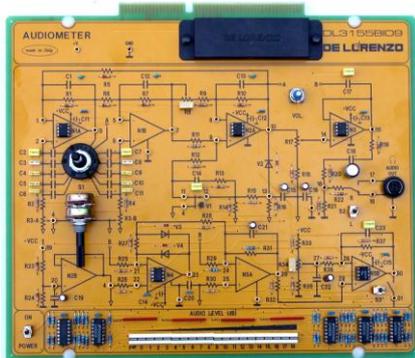
### Theoretical topics:

- Galvanic resistance of the skin
- The function of the different skin layers
- The electric characteristic of the skin
- Behaviour of the human body at the passage of an electric current
- Different types of measurements
- Measurement of the resistance and of the potential
- Visual and audio signaling

### Circuit blocks:

- Variation of the resistance in direct current of the skin with relation to humidity
- Recording of the changes of the galvanic resistance of the skin due to emotional or physical stimuli
- Typical circuit that is used in the monitoring of the GSR

## AUDIOMETER



DL 3155BIO9

The audiometer is used in the medical field to measure the threshold of hearing sounds. An audio signal generator generates all the frequencies between 20 Hz and 25 kHz. The patient, through a headset, checks the level of sensitivity in his ears.

### Theoretical topics:

- Biophysics of sounds
- Physiology of the auditory system: perception, transmission and conduction of the sound
- Diagnosis and evaluation of the acoustic deficit
- Audiometer

### Circuit blocks:

- Typical circuit of an audiometer
- Graphical visualization of the hearing sensitivity of a patient in the whole frequency range



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