

Industrial earplug fit testing device

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 Know-How



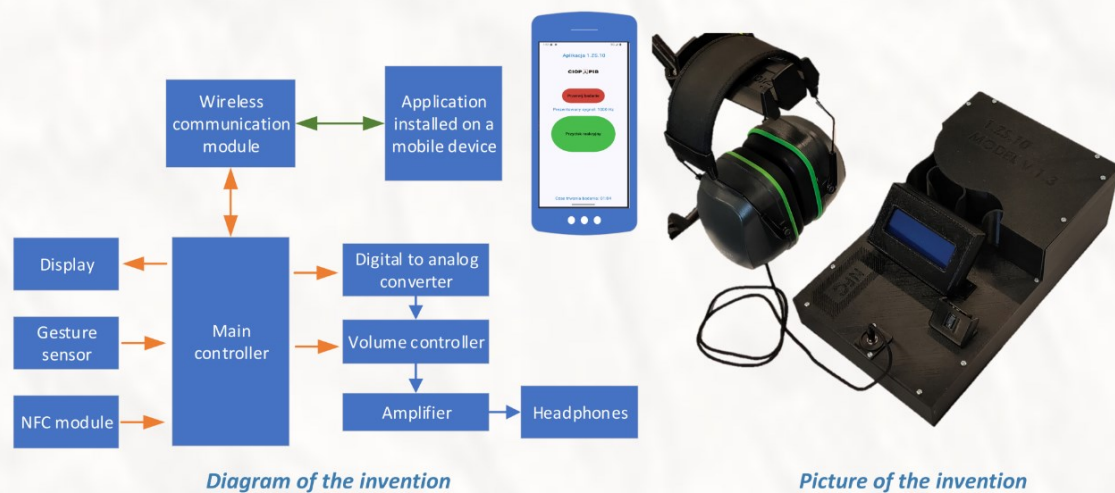
The essence of the invention is based on measuring the user's hearing threshold before and after the insertion of hearing protection earplugs into the ear canals. The obtained results make it possible to determine the actual attenuation performance of the earplugs and to compare it with the values declared by the manufacturer, thereby enabling an assessment of the correctness of the earplug fitting.

The implementation of the invention improves the accuracy and reliability of assessing the effectiveness of hearing protection devices. By enabling objective verification of earplug fit and attenuation performance, it contributes to a significant reduction in the risk of hearing damage among workers exposed to high noise levels.

The application of the invention is relevant to industrial sectors where workers are exposed to high levels of noise, such as manufacturing, construction, mining, and metallurgy. Its use enables effective monitoring and control of hearing protection performance, supporting the maintenance of safe working conditions and helping to prevent long-term hearing damage among employees.

The innovative aspect of the invention lies in the integration of daily hearing threshold measurement with the functionality of testing the correct use of hearing protection earplugs. Another novel feature is the implementation of a contactless operation method, which is particularly important in situations involving an increased risk of infectious disease transmission.

The commercialization stage of the invention involves final model testing, aimed at refining its functionality prior to market implementation.



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