INTEGRATED MODULAR MEDICAL DEVICE FOR ELECTRO-ACUPUNCTURE ANAESTHESIA THERAPY

ABSTRACT

This invention discloses an integrated modular medical device for electro-acupuncture anaesthesia therapy, belonging to the technical field of medical instruments. The device comprises a signal acquisition and monitoring module, a main control module, a parameter adaptive regulation module, a stimulation output module and a safety monitoring unit. The invention addresses problems whereby current output parameters rely on manual adjustment and physician experience, lack objective quantitative basis, and treatment lacks real-time physiological monitoring and feedback, causing current regulation to lag behind patient state changes. By employing a multi-parameter fusion decision algorithm and closed-loop real-time feedback, the invention upgrades traditional electro-acupuncture equipment from "experience-driven open-loop control" to "data-driven closed-loop control", thereby eliminating subjectivity and delay of manual adjustment and significantly enhancing therapeutic safety and individual adaptability through high-precision monitoring and rapid response.

FIG. 1