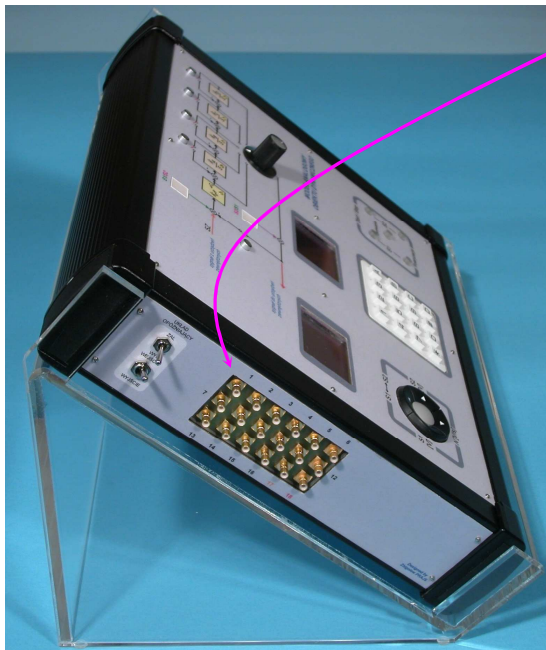
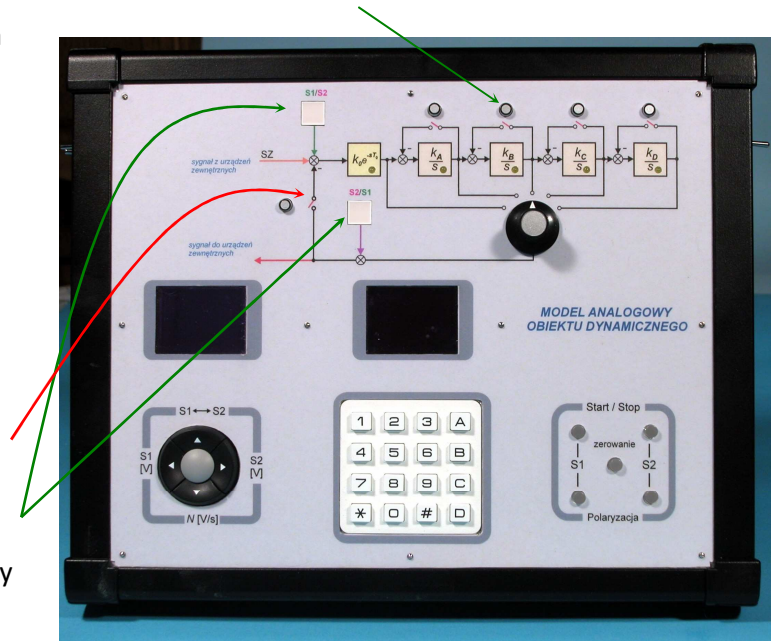


The features of the laboratory device called “Analogue Model of a Dynamic System”

It fulfills the following conditions:

- It is fourth order system consisting of integral blocks enclosed by switchable (close – open) feedback loops – thus ensuring the required type of astatic system.
- It ensures high accuracy of velocity gains in a very wide range of their changes from 0.1 V/sec to 50 V/sec of the system – thus ensuring a wide range of time constant changes of the system.
- It is provided with a proportional block with time-delay, made by means of digital technology, which can be set within a range of 0 – 10 sec with a step of 0.1 sec.
- It is autonomic as regards experimental analysis of a unity feedback control system:
 - it has internal source of different type of forcing test signals,
 - it makes possible to evaluate the accuracy of the system in a wide range – type of a system and type of test input signal,
 - to study elementary dynamic blocks – internal switchable feedback loops,
 - to keep the parameters of the model secret for identification purposes etc.
- It is possible to evaluate the control quality specifications with controllers as regards compensation of deterministic disturbances (system test signals) applied to the input and output of the model.



- It has convenient connectors for external devices like controllers, computers etc.
- Practical industrial or relay type controllers can be applied in a teaching practice because it is possible to ensure suitably large time constants in the model for example simulating an industrial plant.
- It was constructed by means of analogue and digital techniques under the control of local microcontrollers cooperating with two colour displays ensuring simplicity and clarity of the stand.
- It is attractive for the students during the laboratory sessions and can be very useful in enlivening lectures since the experiments can be shown during the lecture thanks to the USB adapter.
- It is very useful in experiments for scientific research for example in preparing theses for Master's and Doctor's degrees.

Producer

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