

# Data Acquisition and Control Interface

LabVolt Series 9063

FESTO



## Increase Students' Understanding of Electric Power Systems and Power Electronics Circuits

Measuring, observing, analyzing, and controlling electrical and mechanical parameters in electric power systems and power electronics circuits represent an important part of the training in various areas, such as electric power technology, AC/DC machines, renewable energy, and power electronics.

For these purposes, the Data Acquisition and Control Interface (DACI) is a versatile USB peripheral that features a set of computer-based instruments and instrumentation tools, which can be accessed through Data Acquisition and Control for Electromechanical Systems (LVDAC-EMS) software.

## Benefits

- Computer-based measurements and instrumentation tools increase student knowledge of electric power systems and power electronics circuits
- Customizable system with several control functions available to fit specific training needs
- Pre-built SCADA interface facilitates an understanding of the process taking place
- Easy connection with other modules due to several inputs and outputs
- Free software (LVDAC-EMS) included
- Software Development Kit (SDK) for third-party programming tools
- Short set-up time
- Safe and affordable

Didactic Short Information

88890-00 Rev. B

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### A powerful duo

The DACI and the LVDAC-EMS software are standard features in the Electric Power Technology Training Systems and in the Computer-Assisted 0.2-kW Electromechanical Training System.

### LVDAC-EMS instruments

The Computer-Based Instrumentation Function includes the following instruments:

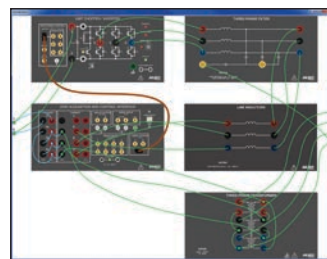
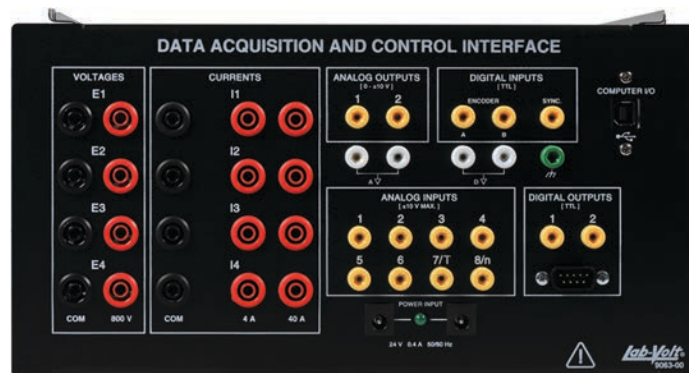
- Metering
- Data Table and Graph
- Oscilloscope
- Phasor Analyzer
- Harmonic Analyzer

The values indicated by the meters or indicators of all computer-based instruments and control functions can be recorded and saved to a file, or used to easily and quickly plot graphs.

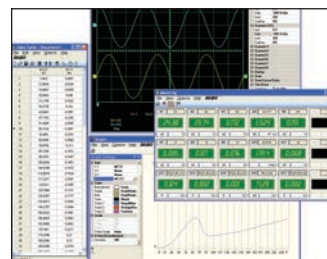
### Control function sets

Several sets of computer-based functions allowing control of power electronics modules can be activated in the DACI:

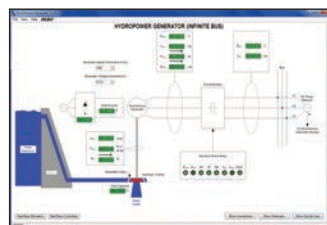
- Computer-Based Instrumentation
- Chopper/Inverter Control
- Thyristor Control
- Home Energy Production Control
- Three-Phase PWM Rectifier/ Inverter Control
- BLDC Motor/PMSM Control
- High-Voltage DC (HVDC) Transmission System Control
- Static Var Compensator (SVC) Control
- 9063 SDK (Software Development Kit)
- Synchronous Generator Control
- Static Synchronous Compensator (STATCOM) Control
- Synchroscope



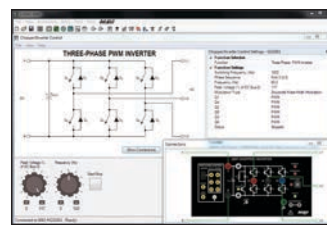
The DACI can be customized to control other devices through its digital outputs while its inputs are used as sensors.



Computer-based instruments



SCADA window of the Hydropower Generator application



Simple connection diagram available for each control function

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