

Motors, Generators and Controls

581147 (91024-20)

FESTO

LabVolt Series

Datasheet



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General Description

Using the Motors, Generators and Controls module, students will configure, operate, and troubleshoot the following:

- Permanent-Magnet DC Motor in Series
- Shunt and Compound Motor Speed in Open and Closed Loop Analog and PWM Systems
- DC Servo Motor in Analog and PWM Circuits
- Stepper Motor Operation
- Drive Circuits
- Speed Control and Positioning Circuits
- AC Synchronous Motor with Variable Frequency Speed Control

The circuits found on this board include:

- DC Motor
- AC Synchronous Motor
- Phase Shifter Motor
- Stepper Motor

This board is available in the following language variants:

- English variant: 91024-20
- French variant: 91024-21
- Spanish variant: 91024-22

Topic Coverage

- DC Motor Circuits Familiarization
- Stepper Motor and AC Motor Circuits
- Analog DC Motor Positioning, PWM DC Motor Positioning
- Analog and Pulsed Speed Control of a DC Motor
- Variable Frequency Control
- The Tachometer Generator
- Troubleshooting
- Microprocessor Interface (Requires the Optional 32-Bit Microprocessor Module (91017), plus these accessories: 9 V Power Supply (91730) and Flat Ribbon Cable (91627).)

Features & Benefits

- Built-in tach generator circuit
- Procedures subdivided into short sections for more hands-on training
- Interface with the 32-Bit Microprocessor module

- Students learn the operation and function of:
 - DC motors in analog and pulse servo systems
 - Linear and pulsed signal speed control of dc motors
 - Variable frequency control and speed monitoring of synchronous motors
 - Speed and position control of stepper motors

Optional Manual(s)

Qty	Description	Model number
1	Motors, Generators, and Controls (Student Manual) _____	589708 (91538-P0) ¹
1	Motors, Generators, and Controls (Student Workbook) _____	580825 (91583-Q0)
1	Motors, Generators, and Controls (Instructor Guide) _____	580827 (91583-R0)

Specifications

Parameter	Value
Physical Characteristics	
Dimensions (H x W x D)	100 x 303 x 249 mm (4 x 12 x 9.75 in)
Net Weight	1.6 kg (3.5 lb)

¹ The manuals Motors, Generators, and Controls, both the student manual and instructor guide, are also available in computer-based format.

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