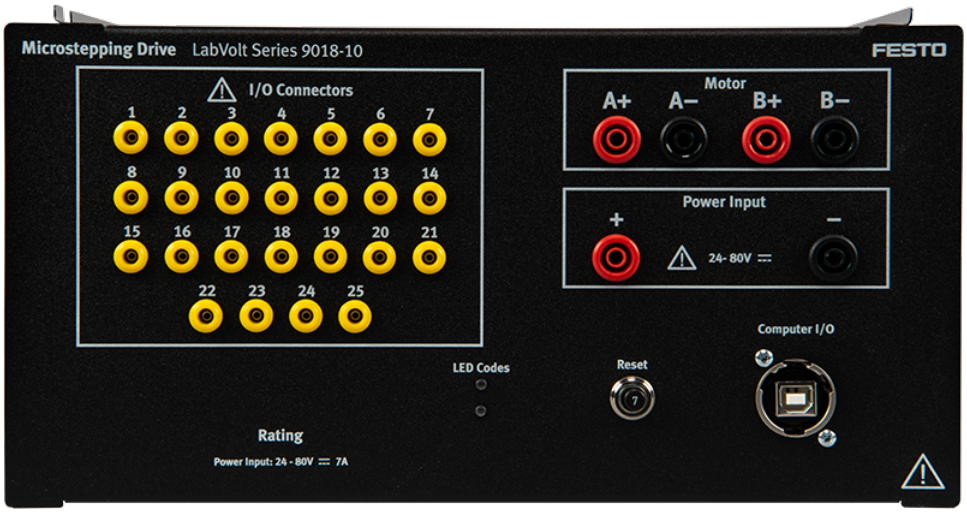
Microstepping Drive
8150976 (9018-10)

LabVolt Series

Datasheet



* The product images shown in this document are for illustration purposes; actual products may vary. Please refer to the Specifications section of each product/item for all details. Festo Didactic reserves the right to change product images and specifications at any time without notice.

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General Description

The Microstepping Drive is a Lab-Volt Electromechanical System (EMS) model designed for the study of stepper motor control. This machine uses industrial-grade components and is mounted in a standard-size EMS module. It is specifically designed to control the Stepper Motor, Model 8244-1. The powerful microstepping drive comes with multiple control options such as Step & direction, CW/CCW pulse, A/B quadrature, velocity (oscillator, joystick), streaming serial commands (SCL), SiNet Hub compatible, Q programming, Si Programming

The drive can be programmed and controlled using either Q Programmer™ or Si Programmer™ software available at Applied Motion.

Features & Benefits

- Anti-Resonance/Electronic Damping to deliver better motor performance and higher speeds
- Microstep Emulation to deliver smoother motion in any application
- Torque Ripple Smoothing to deliver smoother motion at lower speeds
- Command signal smoothing to deliver smoother performance
- Self Test and Auto Setup

Specifications

Parameter	Value
Power Requirements	
Voltage	24-80 V dc (can be supplied with a 8821-2x Power Supply or any other power supply compatible with this voltage range)
Current	7 A
Power Output	
Current per phase	0.1 to 10.0 A
Increments	0.01 A
Modes of operation	
	Step & direction, CW/CCW pulse, A/B quadrature, velocity (oscillator, joystick), streaming serial commands (SCL), SiNet Hub compatible, Q Programming, Si Programming
Microstep Specifications	
Resolution	Software selectable from 200 to 51200 steps/rev in increments of 2 steps/rev
Communication	
	RS-232 for programming and serial communications connected to a USB interface on the module faceplate
Inputs/Outputs	
X1 & X2 inputs	Optically isolated, differential, 5 V dc, minimum pulse width = 250 ns, maximum pulse frequency = 2 MHz
X3 to X6 inputs	Optically isolated, single-ended, shared common, sinking or sourcing, 12-24 V dc
X7 to X8 inputs	Optically isolated, differential, 12-24 V dc
Y1 to Y3 outputs	Optical darlington, single-ended, shared common, sinking, 30 V dc max, 100 mA max
Y4 output	Optical darlington, sinking or sourcing, 30 Vdc max, 100 mA max
Analog inputs IN1 & IN2	Can be used as two single-ended inputs or one differential input. Range = software selectable 0-5, +/-5, 0-10, or +/-10 V dc. Software configurable offset, deadband, and filtering. Resolution = 12 bits (+/-10 volt range), 11 bits (+/-5 or 0-10 volt range), or 10 bits (0-5 volt range). (Si programming mode does not support analog inputs)
Physical Characteristics	
Dimensions (H x W x D)	154 x 287 x 410 mm (6.1 x 11.3 x 16.1 in)
Net Weight	TBE

Reflecting the commitment of Festo Didactic to high quality standards in product, design, development, production, installation, and service, our manufacturing and distribution facility has received the ISO 9001 certification.

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