

Datasheet

Qosain Scientific Stepper Motor Controller

Introduction:

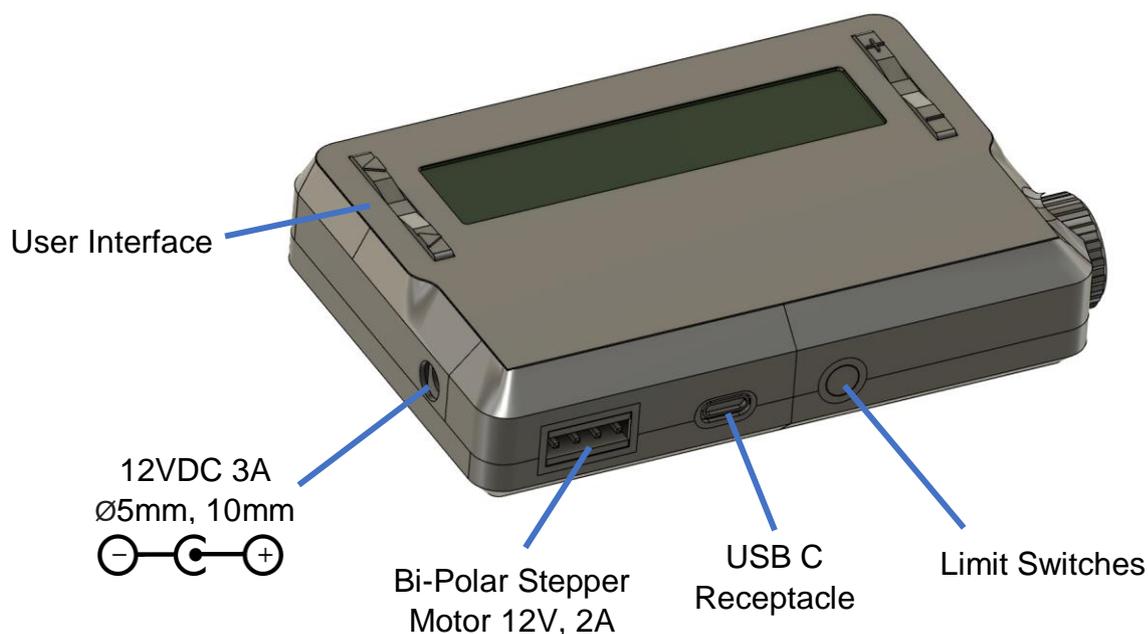
This modular motor controller requires minimal electrical setup. Simply power it with a DC adapter, connect a NEMA 17 stepper motor via a pluggable electrical connector, and easily configure a mode using its LCD and push-button interface. This controller can be used in a range of table-top applications or easily fit inside casings of other equipment—truly making it a Swiss-army knife of all motor controllers! This motor controller is also compatible with Qosain Scientific’s low-cost syringe pump (PhysPump).

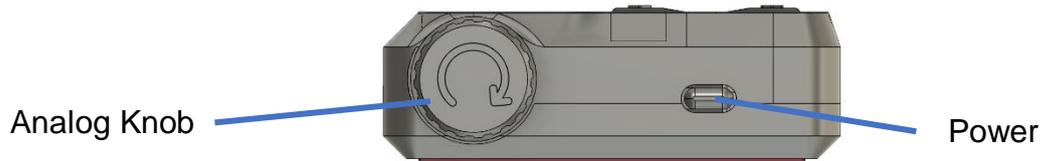
Features:

- Plug and play with in-built user interface
- Used with NEMA17 stepper motors
- One equipment, multiple applications
- Pumping, RPM control, linear stage, pattern generation
- Can interface with PhysLogger

Specifications:

- Motor Requirements
 - Motor compatibility: NEMA 17 and NEMA 11
 - Stepper Motors: (12 V – 24 V, 2 A, bipolar stepper motor, 200 spr)
- Power Requirements
 - Input power supply voltage range: 12 VDC – 24 VDC, 2 A
 - DC power plug specifications: Core positive 5.5 mm x 2.2 mm DC barrel plug
- Operating Features
 - Number of basic operational modes: 4
 - Range of rotational speed control: -2700 deg/s to 2700 deg/s
 - Storage memory: All the parameters are retained after restarting the SMC.





- Other Specs
 - Physical dimensions: 121 mm x 80 mm x 27 mm (L x W x H)
 - User interface: Push button and LCD screen
 - User input methods: Digital and analog user inputs
 - Output display: 2-lines, 20-characters alphanumeric LCD
 - Houses a 3.5 mm stereo jack for limit switch connection

Typical Applications

- Syringe Pump
- Conical Pendulum
- Laboratory Stirrer
- A Controlled Dripping Faucet
- Gearbox and belt compatibility
- Controlled Translation of a Load

Resources

- Instrument URL:
www.physlogger.com/Stepper_Motor_Controller.html
- Discussion:
www.community.physlogger.com/c/p/hysinstruments/motor-controller/20

