

ELECTRONIC PUMP CONTROLLERS



Overview

TCS Micropumps special series of “EQi” motor controllers are a small light weight range of driver boards that can be installed in line with any sensorless brushless motor or stepper motor that requires an external motor driver. Each controller is pump specific. Variations of the controller, all use common hardware that is specifically programmed to suit the requirement and performance of each pump model.

The EQi-*model variant* controller allows full control and exploitation of a small brushless pump's performance. The performance can be varied by the onboard control pot or via a 0-5v signal voltage. The pump can also be activated or reversed remotely if required.

These standard EQi controllers can operate over a supply voltage range of 12-30V and can handle up to a 15amp of load. The speed of the pump is 'Governed' when supply is above 12v to help maintain a constant flow, as back pressure increases/varies, enabling a much flatter pressure/flow curve.

The EQi-M3, MG3, P3 are a higher power motor controller that has all the features of the standard EQi controller but can operate on a supply voltage of 8-40v and can handle up to a 30amp load.

The EQi-STL is a fully featured programmable stepper motor controller that can be setup for both continuous or on/off operation, programmed to deliver precision dose sizes. Performance and setting information is clearly visible on the built-in LCD display.

Typical Applications

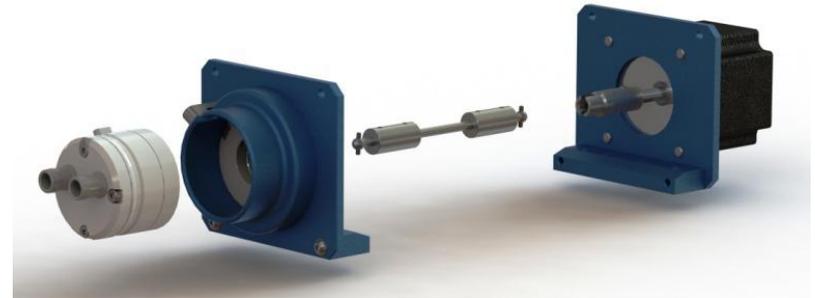
EQi controllers are ideal for prototyping or development/analysis work and also for production installations. If required, custom variants can be programmed/developed using simple plug in headers rather than terminal blocks for easy installation into a customers own PCB circuit.



TCS Standard “Off the Shelf” pumps presented previously in this document, have been designed and manufactured to cover a wide range miniature pumping requirements and are often available from stock.

Note: Production/high-volume pricing also available.

Custom specifications can be met via “TSO”. TCS’s R&D team can configure any of the range to precisely match the application. TSO is available to provide new, unique pumps, developed and tailored to exactly meet demand of the customer.



Special pumps designed, include ...

- Quick-change/disposable pump heads
- High temperature capability
- Heat Transfer systems
- Accurate Dosing with high flow
- Lightweight for UAV’s



Mature developments also exist within TCS for additional pumping technologies, including ...

- Turbines
- Sliding Vane
- Solid Piston

