Brushless Variable Controller

TCS MICROPUMPS: EQ20-V030

Suitable for use with all V030 MicroPumps that require a separate brushless controller
(Patents Pending, Quality Assured ISO 9001, RoHS compliant)

INTRODUCTION

The TCS EQ20-V030 control board is a small lightweight device that can be installed in-line with the Micropump's own wiring, and is used to provide a variable output control.

The EQ20-V030 will accept and input voltage of between 6.5-24v DC This change in voltage can be used to control the pump performance.

The output from the EQ20 can be controlled by either the on board speed control pot or from an external 0-5v input. This output option is switchable by the user via the onboard control switch.

Instant on/off control of the Micropump can be achieved by fitting a switch to the switch wires supplied. The default setting is 'pump on' with no switch connected.

Onboard LED's.

- Red Power
- Green Pump is running
  Note: This LED will only go out when the optional switch is fitted.

The TCS EQ20-V030 is highly efficient, small and lightweight and can be quickly and easily installed into the smallest spaces, in a vast range of laboratory, prototype and production equipment.

Note.
When power is applied there is a 4 second delay before the pump runs while the electronics carry out a diagnostics check. Following a successful check the pump will start.

ELECTRICAL CONNECTION

Voltage: up to 24 DC
Input: Red lead +VE:
Black lead –VE
Output: 3 wire DC Sensorless Brushless Motor
(colour coded to match the V030 Micropump wires)

1. Connect the 3 output wires of the EQ24 to the corresponding 3 wires on the V030 Micropump. Both the wires on the controller and those on the pump are colour coded Yellow/Green(Blue)/Red to ensure correct connection.
2. Connect the Red/Black input wires to the power source.

TCS suggest that you begin testing with a supply voltage of 12v and with the speed control potentiometer fully anti-clockwise. You can then turn the potentiometer clockwise to increase the output from the Micropump.