



Brushless Controller

TCS MICROPUMPS: EQ12-MG1000

For use with all variants of the MG1000.

(Patents Pending, Quality Assured ISO 9001, RoHS compliant, IP68 protection rating)



INTRODUCTION

The TCS EQ12 driver board is a small lightweight device that can be installed in-line with the MG1000 pump to enable power and control via a standard DC power supply.

Using the EQ12 driver the MG1000 can be used on voltages up to 12v.

The input voltage can be varied to adjust the performance of the pump.

The EQ12 driver 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.

ELECTRICAL CONNECTION

Voltage: up to 12 DC

Input: Red lead +VE:
Black lead -VE

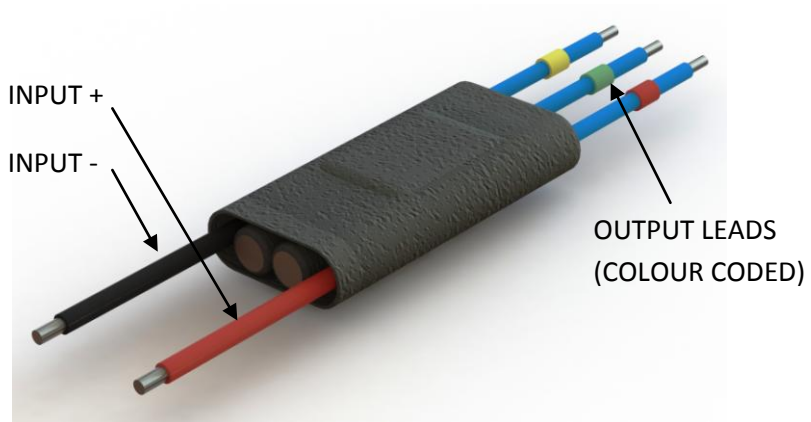
Output: 3 wire DC Sensorless Brushless Motor
(colour coded to match the MG1000 Micropump wires)

1. Connect the 3 output wires of the EQ12 to the corresponding 3 wires on the MG1000 Micropump. Both the wires on the controller and those on the pump are colour coded Yellow/Green/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.

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.



Adjusting Pump performance

Overall pump performance can be adjusted by varying the supply voltage.

Lower voltage = Lower flow / pressure
Higher voltage = Higher flow / pressure (Max 12v)

Mounting

The EQ12 should be bonded or fixed to a suitable surface.

Notes on Operation

The EQ12 is not waterproof and if used with a MG1000 submersible or waterproof pump it must be installed so that it is protected from the liquid.

DO NOT immerse the EQ12.