



MGD1000 Brushless Micropump



TCS MICROPUMPS: MGD1000 (all models)

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

INTRODUCTION

The TCS MGD1000 Micropump is a high-quality miniature pump for liquids. It is highly efficient, small and lightweight. The solid construction and wide temperature tolerance, enable it to perform reliably even in hostile environments. Your Micropump can be quickly and easily installed into the smallest spaces, in a vast range of laboratory, prototype and production equipment. It is self priming and the direction of flow is reversible.

ELECTRICAL CONNECTION

The MGD1000 Micropump is driven by sensorless brushless motor technology and will require an electronic driver circuit in order to be used (supplied separately). This can be designed into your own control electronics or you can choose one of the standard control units

3 wire DC Sensorless Brushless Motor
Supply Voltage: 6-24VC

TCS Micropumps Electronic Driver Units

If a brushless motor controller is not available then TCS Micropumps recommend the EQi-MG1 driver board. This is a small lightweight device which are installed in-line with the pump's own wiring. The input voltage can be varied to suit the flow you require.

EQi-MG1 driver - Can be used for supply voltages up to 24v.
See the Accessories page on the website <http://www.micropumps.co.uk>

Materials

Outer Body Casing Anodised Aluminium

Wetted fluid path

Housing Stainless Steel 316
Gears PEEK
Volute Ertalyte
Seals Viton

TUBING CONNECTION

Manifold Connection MGD1000S-PK-M

To fit a manifold of your own design and making



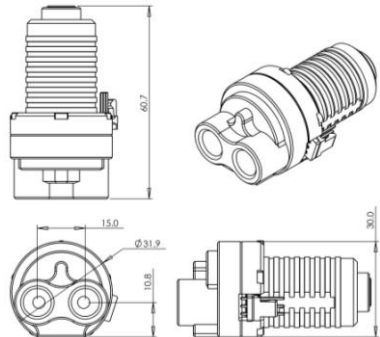
Tube Connection The MGD1000S-PK

The pump housing has 2 x G1/8 (1/8th BSP) threaded ports on its front face that are suitable for a wide range of tubing connectors. Suitable connectors are available to order from <http://www.micropumps.co.uk> (see the accessories page on the website)



Notes on Operation

IP68 Protection Rating (Fully Submersible / Waterproof)
 Micropump life is increased at lower operating voltage/speed/pressure.
 It is not advised to run your Micropump when dry for long periods.



Maximum Operating Pressure

- MGD1000P - 10.0 Bar (145psi)
- MGD1000S - 8.0Bar (116psi)
- MGD1000F - 4.0Bar (58psi)

CAUTION

Do not exceed the maximum operating pressure for your pump
 Do not exceed the maximum operating current draw of 2 amps.
 Exceeding these limits may cause damage to the Micropump.