



MG1000 Brushless Micropump



TCS MICROPUMPS: MG1000 (all models)

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

INTRODUCTION

The TCS MG1000 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 MG1000 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

TCS micropumps recommend the EQ12, EQ24 or EQ20 driver boards. These are small lightweight devices which are installed in-line with the pump's own wiring. The input voltage can be varied to suit the flow you require.

EQ12 driver - Can be used for supply voltages up to 12v.
EQ24 driver - Can be used for supply voltages up to 24v.
EQ20 driver - Can be used for supply voltages from 6.5 to 24v.
Switchable. 0-5v input control. Speed adjustable

See the accessories page on the website <http://www.micropumps.co.uk>

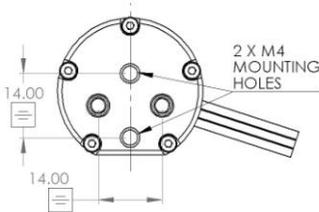
In all installations the flow from the pump can be reversed by swapping the connection of the red and yellow wires to the pump.

Materials

Housing	Anodised Aluminium
Tubing Connectors	Stainless Steel 316
Gears	PEEK or Stainless Steel 316
Volute	Polyacetal
Seals	Viton

TUBING & CONNECTORS (Standard flow direction shown)

Manifold Connection MG1000S-PK



Tube Connection The MG1000S-PK-M

TCS-612: Semi-rigid tubing 4.0mm bore and a range of various inline connectors are available to order from <http://www.micropumps.co.uk> (see the accessories page on the website)



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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.

If the motor wires are shortened ensure that the protective epoxy coating on the copper core has been completely removed or the pump may not function.

Maximum Operating Pressure

MG1000P-	10.0 Bar (145psi)
MG1000S -	8.0Bar (116psi)
MG1000F-	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.