# MGD3000 Series - Data Sheet



## Micro Gear Driven Liquid Pump Range

### Overview: High Pressure Pump Range, Self Priming, Brushless Drive

The TCS MGD3000 Micropump is a high-quality miniature pump for liquids. It is 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.

#### **Pump Variants**







MGD3000-M Manifold Mount Version

#### Note.

The MGD3000 pump range utilizes high performance, efficient sensorless brushless motor technology.

These motors require a separate controller to operate and TCS Micropumps offer the EQ range of controllers for this purpose.



## **Typical Applications**

- Medical devices
- Fuel Cells
- High pressure fuel pump
- Cooling Systems
- Precision Flow
- Lubrication systems

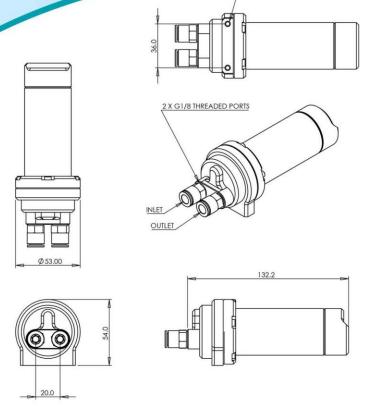
#### **Features**

- 3 wire DC Sensorless Brushless Motor
- Supply Voltage: 12-30VC
- Efficient, Small, Lightweight
- Solid structure
- Wide temperature tolerance
- Self priming
- Reversable flow



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2 X M4 MOUNTING SCREWS



## PRESSURE/FLOW 4,000 3,500 3,000 2,500 Flow (mLPM) 2,000 1,500 1,000 500 0 Pressure (Bar) Standard Flow @ 12v High Pressure Flow @ 12v High Flow Flow @ 12v Standard Flow @ 24v High Pressure Flow @ 24v High Flow Flow@ 24v

#### Materials

#### Wetted Parts

- Anodised 6000 Series Aluminium
- 316 Stainless Steel
- Viton
- PEEK
- Polyacetal
- Materials typical to a Brushless Motor

#### Performance Data

- Weight 1000g
- Size 132 x 54 x 53mm
- Operating Temp
   -20 to 100 deg c
- Smooth Pulseless Flow
- IP Rating Standard pumps
  IP44
- Noise Levels

  Measured at a distance of 1m with a 50dB ambient noise level
- Viscosity up to 5000 cSt
- MTBF Stock Pumps 10,000hrs
- Max recommended opperating pressures
  - MGD3000P 10.0 Bar (145psi)
  - MGD3000S 8.0 Bar (116psi)
  - MGD3000F 6.0 Bar (87psi)
- Max operating power draw 140watts

