



V030 Brushless Micropump



TCS MICROPUMPS: V030 (all models)

(Patents Pending, Quality Assured ISO 9001, RoHS compliant, IP21 protection rating)

INTRODUCTION

The TCS V030 Micropump is a high-quality miniature pump for air. 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. The direction of flow is reversible giving both a high pressure and vacuum capability

ELECTRICAL CONNECTION

The V030 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>

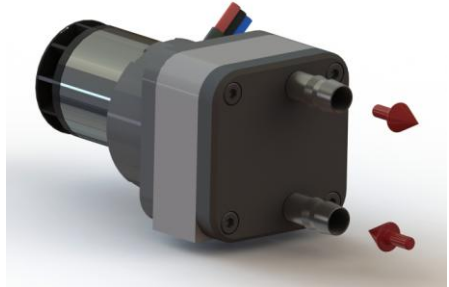
In all installations the flow from the pump can be reversed by swapping the connection of the red and yellow wires to the pump.

Materials

Housing	Nylon 66
Tubing Connectors	Stainless Steel 316
Vanes	PEEK/Graphite
Volute	Nickel Coated Stainless Steel
Rotor	Nickel Coated Aluminium

TUBING & CONNECTORS
(Standard flow direction shown)

TCS-606: Semi-rigid tubing 8.0mm 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)



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

Notes on Operation

IP21 Protection Rating

Micropump life is increased at lower operating voltage/speed/pressure.

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.

Peak Performance

Flow	-	50 Lpm
Pressure	-	500 mBar
Power	-	110Watts

Maximum Sustained Performance

Flow	-	30 Lpm
Pressure	-	350 mBar
Power	-	70Watts

CAUTION

Do not exceed the maximum operating flow or pressure for your pump
Exceeding these limits may lead to excessive heat build up and will cause damage to the Micropump.