

TCS D220BL MICRO PUMP - PMP-0013

INTRODUCTION

The TCS D220BL micro pumps are high-quality self-priming miniature pumps for liquids and gases. They are highly efficient, small and lightweight. The solid construction and wide temperature tolerance, enable them to perform reliably even in hostile environments. Your micro pump can be quickly and easily installed into the smallest spaces, in a vast range of laboratory, prototype and production equipment.

ELECTRICAL CONNECTION

CAUTION: REVERSED OR INCORRECT CONNECTION WILL PERMANENTLY DAMAGE THE ELECTRONICS IN YOUR PUMP!

Voltage: 3.0 to 6.0 Volts DC (Maximum 0.5Amps)

The simplest connection is Red, Green and Grey together to +ve (Positive) supply, Black to –ve (Negative) of supply

Wire Colour	Description	Connection	Status
Black	GRD The negative connection	-Ve	Required
Grey	VM Motor Power Supply	+Ve 3.0~6.0	Required
Red	Vcc Onboard Controller Supply Circuit	+Ve 3.0~6.0	Required
Green	CW/CCW Motor Rotation	+Ve 3.0~6.0	Required
Yellow	RPM Signal Wire	GND Vcc 4 pulse / revolution square wave signal	Optional

Your micro pump can be connected to batteries or a DC power source of up to 6VDC.

Pumping rate can be adjusted by varying input voltages between 3.0V and 6.0V DC. Further fine tuning can be made by restricting the outlet of your pump using a fixed jet restriction or flexible tubing and an adjustable clamp. The pump is quite happy to run even with the outlet completely blocked with gases but the **flow must NOT be blocked when pumping fluids** as pressure inside the pump will increase and damage may occur.

Materials

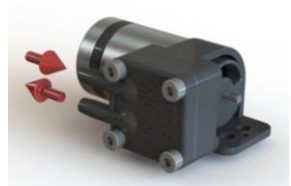
Housing	Glass Filled Nylon
Tubing Connectors	Glass Filled Nylon
Seals	'Silicon, Silicon Nitrile', 'EPDM, EPDM' or Viton, Viton

TUBING

D200 series: 2.4mm (3/32") bore flexible tubing

Notes on Operation

All D220BL pumps are self-priming by design. Simply connect the pump into your flow circuit, noting the flow direction shown below, and begin pumping.



Performance	Input Voltage (v)	Power Usage (w)	Max Pressure (psi)	Max Free Flow (mlpm)
AIR	3.0 - 6.0	0.1 - 0.6	11	450
WATER	3.0 - 6.0	0.6 - 1.8	8	90

Patents Pending, Quality Assured ISO 9001, RoHS compliant, IP45 and IP67 protection rating

