



D200 Brushless Micropump Range



TCS MICROPUMPS: D220BLX and D250BLX

(Patents Pending, Quality Assured ISO 9001, RoHS compliant, IP41 protection rating)

INTRODUCTION

The TCS D series Micropumps are high-quality self priming miniature pumps for 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 Micropump 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 Micropump can be connected to batteries, a DC power source of up to 6V or a TCS power supply TCS-600 (see accessories page on website).

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.



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Materials

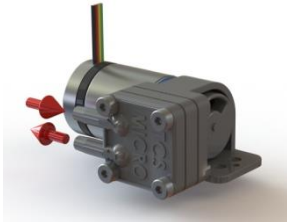
Housing	stainless steel (D250) or Glass Filled Nylon (D220)
Tubing Connectors	Stainless Steel 316 (D250) or Glass Filled Nylon (D220)
Seals	'Viton, Viton', 'EPDM, EPDM' or 'Silicon, Nitrile'

TUBING

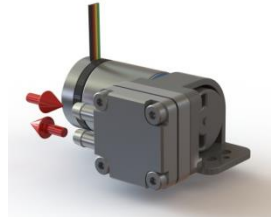
D200 series: 2.4mm (3/32") bore flexible tubing

Notes on Operation

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



D220BLX



D250BLX

Performance	Input Voltage	Power Usage	Max Pressure	Max Free Flow
	(v)	(w)	(psi)	(mlpm)
D220BL - AIR	3.0 - 6.0	0.1 - 0.6	11	450
D250BL - AIR	3.0 - 6.0	0.1 - 0.6	12	620