

501VDL/RL variable speed brushless DC pump

500 series

Watson-Marlow Pumps

FEATURES

- High quality pump combined with a brushless DC motor for precise speed regulation and low electrical and audible noise
- 24V brushless DC gear motor with built in controller
- The built in controller allows for speed control, stop/start, direction and frequency tacho output
- High quality pumphead with a spring loaded rotor assembly for optimal tube life and accurate flows
- Flow rates up to 3500 ml/min (55.48 USGPH) with 8.0mm (0.32in) bore tubing



Watson-Marlow...Innovation in Full Flow

PERFORMANCE

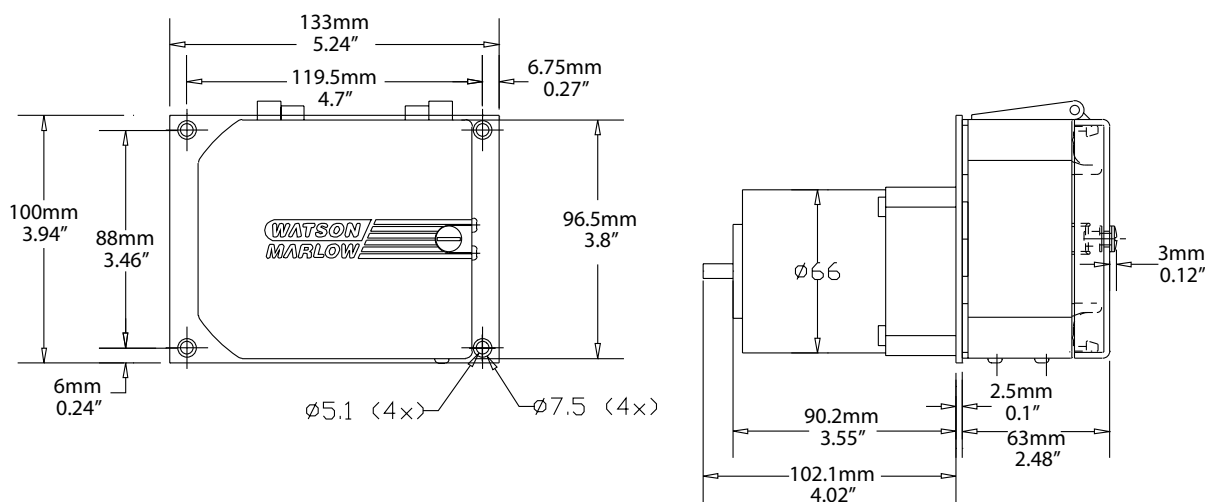
Flow rates 1.6mm wall tubing

Tube bore (mm)	Speed (rpm)	
	100	350
0.5	4.00	14.0
0.8	12.0	42.0
1.6	43.0	151
3.2	186	651
4.8	405	1418
6.4	635	2223
8.0	1000	3500

Motor/controller connections

Lead no.	Lead color	Function	Descriptions
1	brown	FW/RV	Direction control input: 'High' CW, 'Low' CC (shaft side)
2	white	Vin	Input voltage (set-point) for speed loop Resulting speed approx. 1000 rpm/V Vin<4V: motor at full speed, speed loop off (open loop)
3	green	FG	Frequency generator output, 36 ppr: Rout=4kOhm (approx.)
4	black	GND	Motor return, ground (0V)
5	red	Vp	Motor supply voltage +24V (min 14V - Max 30V)
6	bare	shield	Shield for cable and connection to motor housing

DIMENSIONS



TECHNICAL SPECIFICATION

501VDL/RL	
Motor type	12V or 24V direct current
Motor torque output	100rpm 7.3 kgcm 350rpm 21.0 kgcm
Motor consumption	35VA
Weight	3.2kg (7lb 1oz)

ORDER INFORMATION

Description	Speed (rpm) 50/60Hz		
	Supply	Speed (rpm)	Part code
501VDL/RL	24VDL	100	040.NP10.RLO
	24VDL	350	040.NU10.RLO

All flow rates shown were obtained pumping water at 20C (68F) with zero suction and delivery heads. Watson-Marlow, Bioprene and Marprene are trademarks of Watson-Marlow Limited. Disclaimer: The information contained in this document is believed to be correct but Watson-Marlow Limited accepts no liability for any errors it contains, and reserves the right to alter specifications without notice. LoadSure is a trademark of Watson-Marlow Limited. © STA-PURE PFL and © STA-PURE PCS are registered trademarks of W.L Gore & Associates Inc. Please state the product code when ordering pumps and tubing.

**WATSON
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Pumps

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