

114FDB drive pump

114 series Watson-Marlow Pumps

FEATURES AND BENEFITS

- Small size, compact and robust design
- Trouble-free continuous tube loading in seconds
- Reliable performance without any operator adjustments
- Automatic tube stretch for high accuracy and repetitive flow
- Spring-loaded operation for good pressure control
- Pumphead accepts seven bore sizes of tubing for flow ranging from 0.5 ml/min to 340 ml/min
- Very wide voltage controlled flow range
- Suitable for intermittent use applications
- Cost saving drive option for large volume applications
- Motor life up to 1500 hrs



Watson-Marlow...Innovation in Full Flow

PERFORMANCE

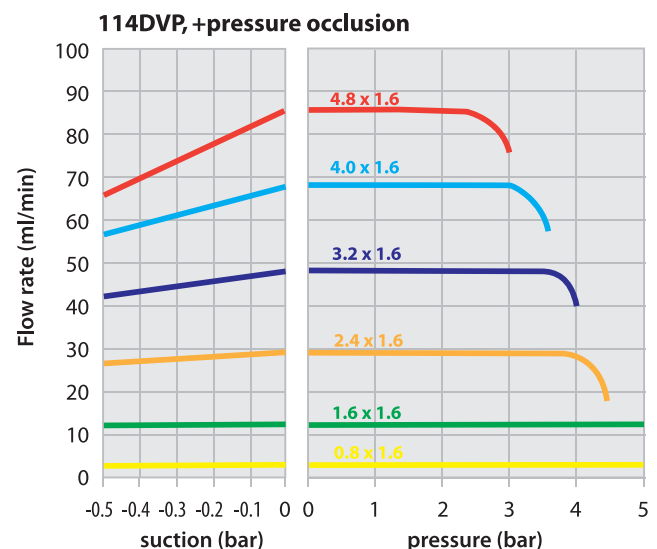
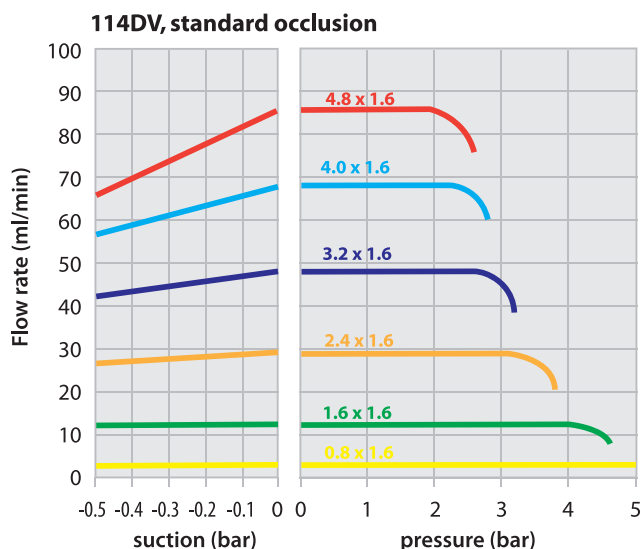
Flow rates (ml/min) Tubing 1.6mm wall

Tube bore (mm)	(ml/rev)	ml/min. Voltage control range - Min. and Max.			
		U=6V 20rpm	U=24V 86rpm	U=6V 80rpm	U=24V 400rpm
0.5	0.02	0.5	2	1.8	9
0.8	0.04	1	3.7	3.4	17
1.6	0.14	3	12	11	56
2.4	0.29	5.8	25	23	116
3.2	0.47	9.5	41	38	190
4.0	0.67	14	58	54	270
4.8	0.85	17	73	68	340
		010.5LN0.x0A		010.5LV0.x0A	

Custom options
Drives
Optional 12V motor available
Alternative speeds available
Pumpheads
No visible rotation - covered holes
Logic off switch and rotation sensor
Custom colours

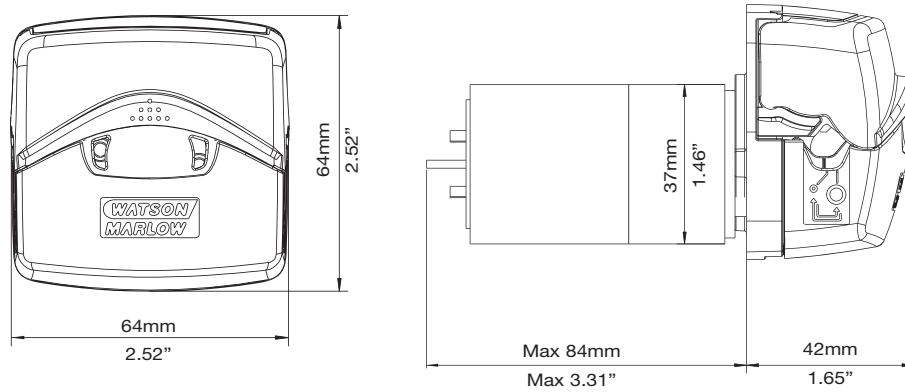
If you do not find exactly what you are looking for in this datasheet, we will make you a custom solution.

Pressure and flow performance



Flows obtained pumping water at 100rpm CCW-rotation

DIMENSIONS



TECHNICAL SPECIFICATION

Pump type	Single channel peristaltic pump
Tubing	1.6mm wall, continuous tubing
Recommended use	Continuous or intermittent applications
Operation	CW and CCW
Approximate motor life	1500hours
Supply voltage	6-24V
Power consumption	< 15W
Noise	< 70 dBA
Speed control	PWM (recommend; 15±5kHz) or voltage control
Operating temperature	Motor housing temp max. 70C (158F) Ambient temp. approx +5 to +40 at low load, +5 to +25C high load Please consider the tubing temperature range. Refer to www.wmpg.com
Weight	0.4kg (0lb 14.1oz)
114DV standard pumphead	Optimised for tube life
114DVP +pressure pumphead	Optimised for pressure performance

MATERIALS OF CONSTRUCTION

Component	Material
Housing	IXEF PARA, Grilamid PA12
Rotor	IXEF PARA
Rollers	PTFE filled PBT
Bearings	Stainless steel ball bearings
Shafts	Stainless steel
Springs	Stainless steel
Adapter plate	IXEF PARA

ORDER INFORMATION

Product codes				
Description	Supply	Nominal max. speed (rpm)	with 114DV	with 114DVP
114FDB drive	24VDC	86	010.5LN0.00A	010.5LN0.P0A
	24VDC	400	010.5LV0.00A	010.5LV0.P0A

Tube ordering codes for 114DV and 114DVP pumpheads					
Bore/wall	Pumpsil	Marpene	Bioprene	STA-PURE PFL	PVC*
0.5/1.6mm	913.A005.016	902.0005.016	933.0005.016		
0.8/1.6mm	913.A008.016	902.0008.016	933.0008.016		
1.6/1.6mm	913.A016.016	902.0016.016	933.0016.016	965.0016.016	E3603.016.16
2.4/1.6mm	913.A024.016	902.0024.016	933.0024.016		
3.2/1.6mm	913.A032.016	902.0032.016	933.0032.016	965.0032.016	E3603.032.16
4.0/1.6mm			933.0040.016		E3603.040.16
4.8/1.6mm	913.A048.016	902.0048.016	933.0048.016	965.0048.016	E3603.048.16
Bore/wall	Neoprene*	STA-PURE PCS			
0.5/1.6mm					
0.8/1.6mm	920.0008.016				
1.6/1.6mm	920.0016.016	960.0016.016			
2.4/1.6mm					
3.2/1.6mm	920.0032.016	960.0032.016			
4.0/1.6mm					
4.8/1.6mm	920.0048.016	960.0048.016			

*recommended for 114DVP +pressure pumphead only

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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