

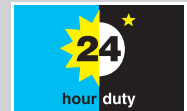
101F/R manual control and 101U/R auto/manual control pumps

100 series

Watson-Marlow Bredel

COMMON FEATURES AND BENEFITS

- Flow rates from up to 32.6ml/min from 101F/R and up to 53.0ml/min from 101U/R
- Fixed speed, manual control 101F/R and variable speed, manual/auto control 101U/R
- Single channel, low-flow pumps for use with platinum-cured silicone tubing
- Rapid and simple tube loading 102R pumphead accepts five tube bore sizes
- IP31 ingress protection



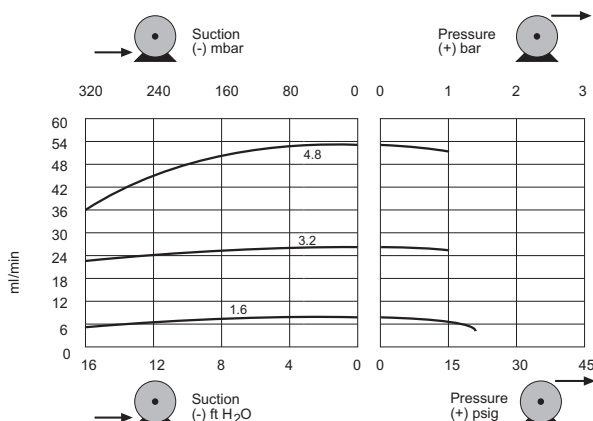
Watson-Marlow Bredel ... Value for life

FUNCTIONALITY

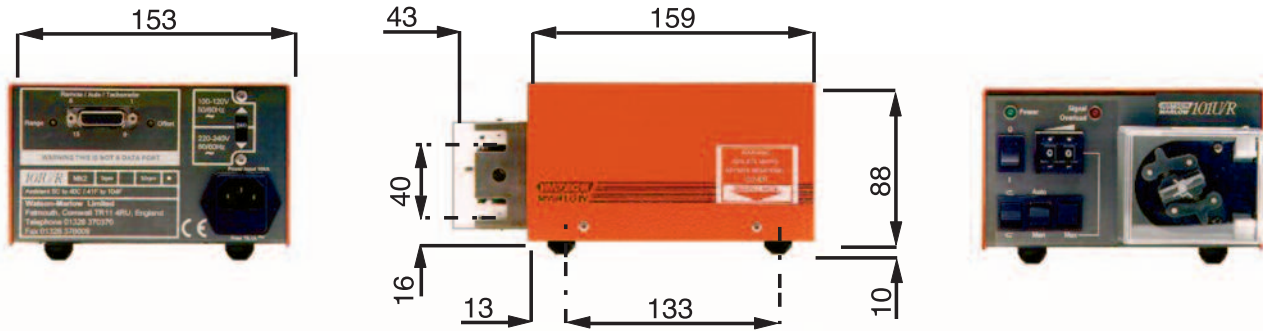
Pump drives	101F/R	101U/R
Keypad/remote selection for auto/manual		•
Manual control		
Switching for power, direction and max priming		•
0.06-2rpm 33:1 speed control		•
1.0-32rpm 32:1 speed control		•
Two maximum speeds 4rpm or 20rpm	•	
Remote control		
Run/stop and direction change (via contact closure or 5V TTL)		•
0 to -5V, 0 to +5V dc tachometer output		•
Analogue speed control		
Inputs up to 30V or 32mA		•

PERFORMANCE

	Speed rpm	Tube bore and flow rates (ml/min)				
		0.5mm	0.8mm	1.6mm	3.2mm	4.8mm
101F/R	4	0.087	0.20	0.87	3.17	6.35
101F/R	20	0.420	0.98	4.36	16.0	32.6
101U/R	0.06 - 2	0.001 - 0.04	0.003 - 0.10	0.13 - 0.44	0.049 - 1.62	0.098 - 3.25
101U/R	1.0 - 32	0.021 - 0.69	0.048 - 1.61	0.210 - 7.00	0.780 - 26.0	1.590 - 53.0



DRAWINGS



All dimensions in mm

SPECIFICATION

101F/R and 101U/R	
Weight	1.7kg - 101F/R, 2.2kg - 101U/R
Working temperature	5C to 40C (40F to 104F)
Standards	CE, BS EN50082-1, BS EN61010-1, BS EN60529(IP21)
Power supply	
101U/R	1ph, 100-120V, 200-240V, 50/60Hz, 15VA
101F/R 4rpm	1ph, 200-250V, 50Hz, 25VA
101F/R 20rpm	1ph, 200-220V, 50Hz, 25VA
101F/R 20rpm	1ph, 230-250V, 50Hz, 25VA

MATERIALS OF CONSTRUCTION

Component	Material
Drive	Powder coated cover painted steel chassis
Track	Acetal copolymer Kematal or PVDF
Rotor	IXEF (Polyarylamide)
Tube clamps	Acetal copolymer Kematal
Rollers	MoS2 filled Nylon 6 (Nylatron)
Guard	Polycarbonate
Spindles, guide pins	Stainless steel

ORDER INFORMATION

Product codes	
Description	Partcode
101F/R 4rpm 200-250V pump	010.0211.00U
101F/R 20rpm 200-220V pump	010.0511.00U
101F/R 20rpm 230-250V pump	010.0521.00U
101U/R 0.06-2rpm pump	010.4002.00U
101U/R 1.0-32rpm pump	010.4202.00U

Tube ordering codes	
Bore/wall	Platinum Silicone
0.5/1.6mm	913.A008.016
0.8/1.6mm	913.A008.016
1.6/1.6mm	913.A008.016
3.2/1.6mm	913.A008.016
4.8/1.6mm	913.A008.016

All flow rates shown were obtained pumping water at 20C (68F) with zero suction and delivery heads. Watson-Marlow, Loadsure, 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. © CHEM-SURE and © STA-PURE is a registered trademark of W.L Gore & Associates Inc. Please state the product code when ordering pumps and tubing.



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