

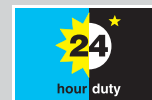
# 120S/D1 and 120U/D1 cased pumps fitted with 400D1 pumphead

# 100 series

Watson-Marlow Pumps Group

## FEATURES AND BENEFITS

- Flow rates 0.001 to 108 ml/min at 2bar (30psi)
- Compact footprint requiring minimal benchtop space
- Superior speed control up to 10,000:1,  $\pm 1\%$  set speed accuracy
- 400DM2 is a two-channel pumphead and 400DM3 a three-channel pumphead both for double segment manifold tubing
- IP31 ingress protection for wipedown environments
- Maintenance-free brushless DC motor



*Watson-Marlow...Innovation in Full Flow*

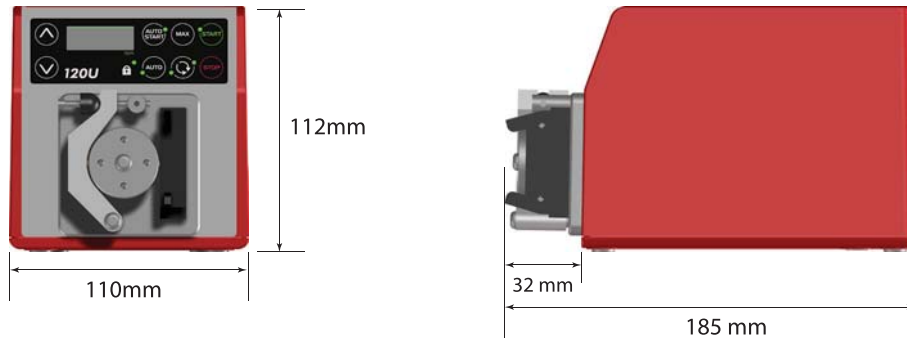
## TECHNICAL DATA

Functionality	120S	120U
<b>Manual control</b>		
1 to 200rpm (200:1)	•	
0.1 to 200rpm (2000:1)		•
Numerical speed display	•	•
Reversible direction	•	•
Max (prime)	•	•
Auto start	•	•
<b>Remote control</b>		
Run/stop, direction change, auto/man toggle, alarm		•
<b>Analogue control</b>		
0.01 to 200rpm (20,000:1)		•
Analogue speed input; 4-20mA, 0-10V		•
Tacho speed output; 0-5V		•
<b>Security</b>		
Keypad lock to protect set-up	•	•

## PERFORMANCE

Tube bore and flow rates 102S/D1 and 120U/D1 (ml/min)							
	Speed rpm	0.5mm	0.8mm	1.6mm	2.4mm	3.2mm	4.0mm
120S/D1	1 - 200rpm	0.01 - 2.2	0.03 - 5.8	0.11 - 23	0.24 - 49	0.41 - 81	0.59 - 120
120U/D1	0.1 - 200rpm	0.001 - 2.2	0.003 - 5.8	0.011 - 23	0.024 - 49	0.041 - 81	0.059 - 120

## DIMENSIONS



## TECHNICAL SPECIFICATION

120S, 120U	
Ingress rating	IP31 / NEMA 2
Enclosure	Wipedown
Suitability	Dry light-industrial environments
Humidity	Non-condensing 80% up to 31C, 88F, decreasing linearly to 50% at 40C, 104F
Temperature	5C to 40C (40F to 104F)
Pump weight	1.65kg (3lbs 9oz)
Control ratio	120S: 200:1, 120U: Manual 2000:1, Auto 20,000:1
Torque rating	0.4Nm continuous duty
Noise	<60dB(A) at 1m
Standard	CE, cETLus
Power supply	24VDC from mains transformer supplied (mains supply range 90~264VAC 47~63Hz)

## MATERIALS OF CONSTRUCTION

Component	Material
Keypad	Polyester
Drive casework	ABS plastic
Drive shaft	Stainless Steel
Pumphead track	Aluminium (anodised)
Rotor	Aluminium (anodised)
Rollers	Acetal
Spindles guide pins	Stainless steel

## ORDER INFORMATION

Pump and pumphead product codes			
Description	Partcode	Description	Partcode
120S/D1 manual speed pump	010.6131.010	400D1 pumphead	043.001D.D1C
120U/D1 manual and auto pump	010.6141.010		

Tubing 1.6mm wall thickness for 400D1						
	0.5mm	0.8mm	1.6mm	2.4mm	3.2mm	4.0mm ※ 1
Bioprene	933.0005.016	933.0008.016	933.0016.016	933.0024.016	933.0032.016	
Pumpsil (Silicone)	913.A005.016	913.A008.016	913.A016.016	913.A024.016	913.A032.016	
STA-PURE PCS			961.0016.016		961.0032.016	
Marpene	902.0005.016	902.0008.016	902.0016.016	902.0024.016	902.0032.016	902.0040.016
STA-PURE PFL			966.0016.016		966.0032.016	
Neoprene		920.0008.016	920.0016.016		920.0032.016	

※ 1 . 内径4.0mmのチューブは廃番になりました

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  
MARLOW  
Pumps**

wmpg.co.uk  
info@wmpg.co.uk  
+44 (0) 1326 370370