

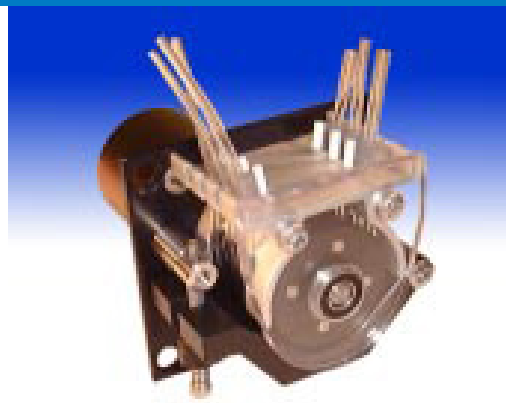
400F/DM3 compact instrument quality three channel pump

400 series

Watson-Marlow Pumps

FEATURES AND BENEFITS

- Spring loaded fully adjustable track for adaptability to various pressure conditions and maximising tube life
- Accepts standard three bridge colour coded auto-analysis tube elements available in 19 sizes
- Wide range of gear motors available
- Extremely compact design
- Flow rates up to 36 ml/min



Watson-Marlow...Innovation in Full Flow

The standard DC 5W motor is our most compact instrument quality motor. This motor features silent operation, long brush life and excellent speed regulation with our controllers (optional).

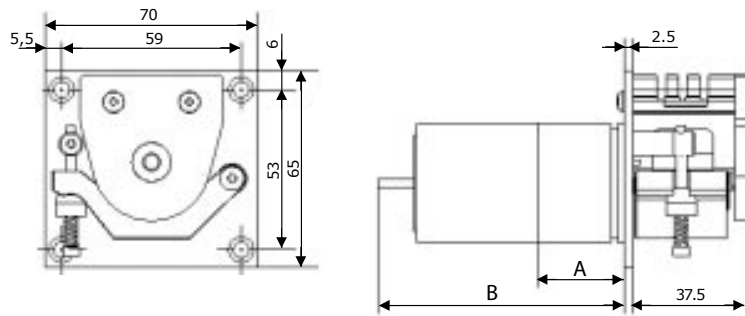
The economy DC 5W motor offers small size and high value for money. It is primarily intended for intermittent duty applications.

The brushless DC 5W motor is a 1 phase 2 core reluctance motor with a 4 pole ferrite magnet. Hall sensors and commutation electronics are integrated. No carbon brushes yields an extremely long life with no maintenance required. Speed is regulated by varying the 24 VDC supply.

PERFORMANCE

Tube bore and flow rates (ml/min)										
Speed rpm	0.13 mm	0.19 mm	0.25 mm	0.38 mm	0.50 mm	0.63 mm	0.76 mm	0.88 mm	1.02 mm	1.14 mm
12	0.012	0.024	0.048	0.10	0.17	0.26	0.37	0.52	0.66	0.84
15	0.015	0.030	0.06	0.12	0.21	0.33	0.47	0.65	0.83	1.1
20	0.020	0.040	0.08	0.16	0.28	0.44	0.62	0.86	1.1	1.4
25	0.025	0.050	0.10	0.20	0.35	0.55	0.78	1.1	1.4	1.8
40	0.040	0.08	0.16	0.32	0.56	0.88	1.2	1.7	2.2	2.8
50	0.050	0.10	0.20	0.40	0.70	1.1	1.6	2.2	2.8	3.5
75	0.08	0.15	0.30	0.60	1.1	1.7	2.3	3.2	4.1	5.3
100	0.10	0.20	0.40	0.80	1.4	2.2	3.1	4.3	5.5	7.0
Speed rpm	1.29 mm	1.42 mm	1.52 mm	1.65 mm	1.85 mm	2.05 mm	2.29 mm	2.54 mm	2.79 mm	
12	1.07	1.32	1.44	1.68	2.2	2.5	3.1	3.7	4.3	
15	1.34	1.65	1.80	2.1	2.7	3.2	3.9	4.7	5.4	
20	1.78	2.2	2.4	2.8	3.6	4.2	5.2	6.2	7.2	
25	2.2	2.8	3.0	3.5	4.5	5.3	6.5	7.8	9.0	
40	3.6	4.4	4.8	5.6	7.2	8.4	10	12	14	
50	4.5	5.5	6.0	7.0	9.0	11	13	16	18	
75	6.7	8.3	9.0	11	14	16	20	23	27	
100	8.9	11	12	14	18	21	26	31	36	

DIMENSIONS



Motor type	Standard DC 5W	Economy DC 5W	Brushless DC 5W
Dimension A	L=26.5mm X Ø39.6mm	L=26.5mm X Ø39.6mm	L=26.5mm X Ø39.6mm
Dimension B	L=87.3mm* X Ø39.6mm	L=81.0mm* X Ø39.6mm	L=77.0mm* X Ø39.6mm

*=maximum length behind mounting plate

MATERIALS OF CONSTRUCTION

Component	Material
Rotor	Acetal (Black)
Rollers	Acetal (Black)
Track	Acetal (Black)
Tube holder	Aluminium
Shafts	Acid resistant stainless steel
Mounting panel	Black anodised aluminium
Springs	Acid resistant stainless steel
Screws	Acid resistant stainless steel

ORDER INFORMATION

Motor type	Voltage	Speed rpm	Product code
Standard DC 5W	12-15VDC	100rpm	040.DP1D.M3M
Standard DC 5W	24-30VDC	100rpm	040.EP1D.M3M
Standard DC 5W	12-15VDC	40rpm	040.DH1D.M3M
Standard DC 5W	24-30VDC	40rpm	040.EH1D.M3M
Standard DC 5W	12-15VDC	12rpm	040.D81D.M3M
Standard DC 5W	24-30VDC	12rpm	040.E81D.M3M
Economy DC 5W	12VDC	75rpm	040.AN1D.M3M
Economy DC 5W	24VDC	75rpm	040.BN1D.M3M
Economy DC 5W	12VDC	25rpm	040.AC1D.M3M
Economy DC 5W	24VDC	25rpm	040.BC1D.M3M
Brushless DC 5W	24VDC	50rpm	040.FK1D.M3M
Brushless DC 5W	24VDC	15rpm	040.F91D.M3M

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.

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