

400F/N2 two channel ultra-compact 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 two bridge colour coded auto-analysis tube elements available in 19 sizes
- Wide range of gear motors available
- Extremely precise in flow control in a flexible design
- Flow rates up to 60 ml/min



Watson-Marlow...Innovation in Full Flow

The standard DC 30W motor is our most powerful instrument quality motor. This motor features low electrical and audible noise, long brush life and excellent speed regulation with our controllers (optional).

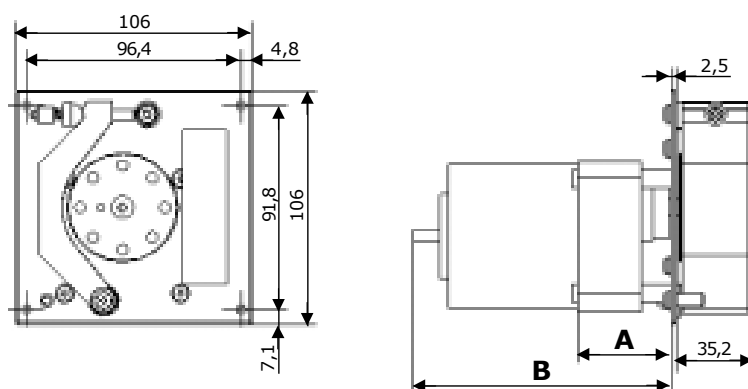
The standard DC 5W motor is our most compact instrument quality motor. This motor features low electrical and audible noise, long brush life and excellent speed regulation with our controllers (optional).

The brushless DC 35W motor is powerful with built in controller. No carbon brushes yields an extremely long life with no maintenance required.

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 | 0.017 | 0.037 | 0.066 | 0.15 | 0.26 | 0.41 | 0.58 | 0.80 | 1.0 | 1.3 |
| 25 | 0.036 | 0.077 | 0.14 | 0.31 | 0.55 | 0.85 | 1.2 | 1.7 | 2.2 | 2.7 |
| 30 | 0.043 | 0.092 | 0.16 | 0.37 | 0.66 | 1.0 | 1.5 | 2.0 | 2.6 | 3.3 |
| 60 | 0.086 | 0.18 | 0.33 | 0.74 | 1.3 | 2.0 | 2.9 | 4.0 | 5.2 | 6.5 |
| 100 | 0.14 | 0.31 | 0.55 | 1.2 | 2.2 | 3.4 | 4.9 | 6.6 | 8.6 | 11 |
| 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 | 1.7 | 2.0 | 2.3 | 2.7 | 3.3 | 4.0 | 4.9 | 6.0 | 7.0 | |
| 25 | 3.5 | 4.2 | 4.8 | 5.6 | 6.9 | 8.4 | 10 | 12 | 15 | |
| 30 | 4.2 | 5.0 | 5.7 | 6.7 | 8.3 | 10 | 12 | 15 | 18 | |
| 60 | 8.3 | 10 | 11 | 13 | 17 | 20 | 25 | 30 | 35 | |
| 100 | 14 | 17 | 19 | 22 | 28 | 34 | 41 | 50 | 59 | |

DIMENSIONS



| Motor type | Standard DC 30W | Standard DC 5W | Brushless DC 35W |
|-------------|----------------------|---------------------|----------------------|
| Dimension A | L=41.3mm X Ø68.0mm | L=41.3mm X Ø68.0mm | L=41.3mm X Ø68.0mm |
| Dimension B | L=115.2mm* X Ø68.0mm | L=93.4mm* X Ø68.0mm | L=103.4mm* X Ø68.0mm |

*=maximum length behind mounting plate

MATERIALS OF CONSTRUCTION

| Component | Material |
|-----------------|--------------------------------|
| Rotor | Aluminium |
| Rollers | Acid resistant stainless steel |
| Roller bearings | Carbon steel |
| Track | Aluminium |
| Tube holder | Acetal (Black) |
| Shafts | Acid resistant stainless steel |
| Mounting panel | Anodised aluminium |
| Springs | Acid resistant stainless steel |
| Screws | Acid resistant stainless steel |

ORDER INFORMATION

| Motor type | Voltage | Speed rpm | Product code |
|------------------|----------|-----------|--------------|
| Standard DC 30W | 12VDC | 100rpm | 040.MP1G.M4S |
| Standard DC 30W | 24-30VDC | 100rpm | 040.LP1G.M4S |
| Standard DC 5W | 12-15VDC | 60rpm | 040.CM1G.M4S |
| Standard DC 5W | 24-30VDC | 60rpm | 040.EM1G.M4S |
| Standard DC 5W | 12-15VDC | 25rpm | 040.CC1G.M4S |
| Standard DC 5W | 24-30VDC | 25rpm | 040.EC1G.M4S |
| Standard DC 5W | 12-15VDC | 12rpm | 040.C81G.M4S |
| Standard DC 5W | 24-30VDC | 12rpm | 040.E81G.M4S |
| Brushless DC 35W | 24VDC | 100rpm | 040.NP1G.M4S |
| Brushless DC 35W | 24VDC | 30rpm | 040.NE1G.M4S |

All flow rates shown were obtained pumping water at 20°C (68°F) 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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