

400F/DM2-DM3 two or three channel peristaltic pumps for manifold tubing



400F/DM2

The 400F/DM is our standard instrument-quality peristaltic pump for low flow rates. The pumps have a spring-loaded track, which gives superior life and flow-accuracy. The tubing occlusion can be adjusted to produce higher pressures. The pump is available with four standard gearmotors. Each one is extremely small in size and has low power requirements. The pump accepts standard manifold tube elements, with three color-coded stops. The tubing is available in 20 bore sizes, allowing the user to precisely match the pump to the required flow. See page 21 for additional options.

Ordering information

| Standard DC | 12rpm | 40rpm | 100rpm |
|---------------------------------|--------------|--------------|--------------|
| 400FDC/DM2 12V Two Channel | 040.D81D.M2M | 040.DH1D.M2M | 040.DP1D.M2M |
| 400FDC/DM2 24V Two Channel | 040.E81D.M2M | 040.EH1D.M2M | 040.EP1D.M2M |
| 400FDC/DM3 12V Three Channel | 040.D81D.M3M | 040.DH1D.M3M | 040.DP1D.M3M |
| 400FDC/DM3 24V Three Channel | 040.E81D.M3M | 040.EH1D.M3M | 040.EP1D.M3M |
| Economy DC | 25rpm | 75rpm | |
| 400FD/DM2 12V Two Channel | 040.AC1D.M2M | 040.AN1D.M2M | |
| 400FD/DM2 24V Two Channel | 040.BC1D.M2M | 040.BN1D.M2M | |
| 400FD/DM3 12V Three Channel | 040.AC1D.M3M | 040.AN1D.M3M | |
| 400FD/DM3 24V Three Channel | 040.BC1D.M3M | 040.BN1D.M3M | |
| Brushless DC | 15rpm | 50rpm | |
| 400FDL/DM2 24V Two Channel | 040.FK1D.M2M | 040.F91D.M2M | |
| 400FDL/DM3 24V Three Channel | 040.FK1D.M3M | 040.F91D.M3M | |
| Synchronous AC 110V | 5rpm | 12rpm | 25rpm |
| 400FS/DM2 110VAC 60hz Two Chan. | 040.H41D.M2M | 040.H81D.M2M | 040.HC1D.M2M |
| Synchronous AC 220V | 4rpm | 10rpm | 20rpm |
| 400FS/DM2 220VAC 50hz Two Chan. | 040.J31D.M2M | 040.J71D.M2M | 040.JA1D.M2M |

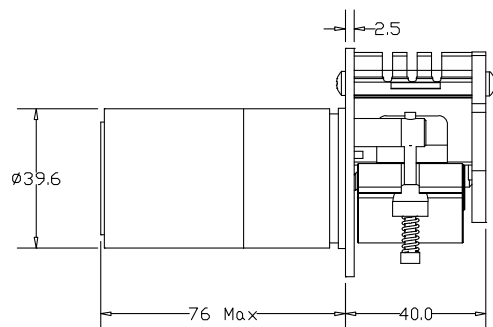
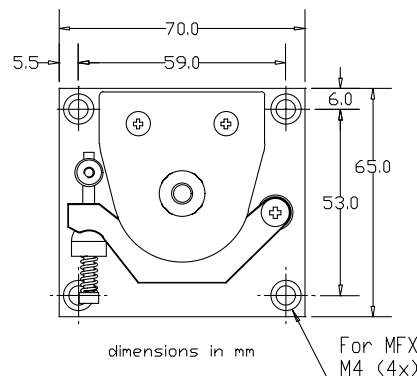
See motor descriptions on page 46.

Materials of construction

| | |
|------------------------------|--------------------------------|
| Rotor Track | Black Acetal (POM) |
| Rollers | Black Acetal (POM), |
| Mounting plate, tube holder, | Anodized aluminum |
| Screws, springs, shafts | Acid resistant stainless steel |

Specifications

| | |
|----------------------------|--|
| Maximum continuous speed | 100 rpm |
| Maximum intermittent speed | 200 rpm |
| Weight of complete pump | 240-420 g |
| Tube type | Three-stop auto-analysis tube elements |





400F/DM3

Flow rates

| Color Bore | Orange/black 0.13mm | Orange/Red 0.19mm | Orange/Blue 0.25mm | Orange/Green 0.38mm | Orange/yellow 0.50mm |
|--------------------|-------------------------|-------------------------|-------------------------|------------------------|-------------------------|
| Flow ml/revolution | <i>0.001</i> | <i>0.002</i> | <i>0.004</i> | <i>0.008</i> | <i>0.014</i> |
| 4 | <i>0.004</i> | <i>0.008</i> | <i>0.016</i> | <i>0.03</i> | <i>0.06</i> |
| 5 | <i>0.005</i> | <i>0.010</i> | <i>0.020</i> | <i>0.04</i> | <i>0.07</i> |
| 10 | <i>0.010</i> | <i>0.020</i> | <i>0.040</i> | <i>0.08</i> | <i>0.14</i> |
| 12 | <i>0.012</i> | <i>0.024</i> | <i>0.048</i> | <i>0.10</i> | <i>0.17</i> |
| 15 | <i>0.015</i> | <i>0.030</i> | <i>0.060</i> | <i>0.12</i> | <i>0.21</i> |
| 20 | <i>0.020</i> | <i>0.040</i> | <i>0.080</i> | <i>0.16</i> | <i>0.28</i> |
| 25 | <i>0.025</i> | <i>0.050</i> | <i>0.100</i> | <i>0.20</i> | <i>0.35</i> |
| 40 | <i>0.040</i> | <i>0.080</i> | <i>0.160</i> | <i>0.32</i> | <i>0.56</i> |
| 50 | <i>0.050</i> | <i>0.100</i> | <i>0.200</i> | <i>0.40</i> | <i>0.70</i> |
| 75 | <i>0.075</i> | <i>0.150</i> | <i>0.300</i> | <i>0.60</i> | <i>1.1</i> |
| 100 | <i>0.100</i> | <i>0.200</i> | <i>0.400</i> | <i>0.80</i> | <i>1.4</i> |
| Color Bore | Orange/White 0.63mm | Black/Black 0.76mm | Orange/Orange 0.88mm | White/White 1.02mm | Red/Red 1.14mm |
| Flow ml/revolution | <i>0.022</i> | <i>0.031</i> | <i>0.043</i> | <i>0.055</i> | <i>0.070</i> |
| 4 | <i>0.09</i> | <i>0.12</i> | <i>0.17</i> | <i>0.22</i> | <i>0.28</i> |
| 5 | <i>0.11</i> | <i>0.16</i> | <i>0.22</i> | <i>0.28</i> | <i>0.35</i> |
| 10 | <i>0.22</i> | <i>0.31</i> | <i>0.43</i> | <i>0.55</i> | <i>0.70</i> |
| 12 | <i>0.26</i> | <i>0.37</i> | <i>0.52</i> | <i>0.66</i> | <i>0.84</i> |
| 15 | <i>0.33</i> | <i>0.47</i> | <i>0.65</i> | <i>0.83</i> | <i>1.05</i> |
| 20 | <i>0.44</i> | <i>0.62</i> | <i>0.86</i> | <i>1.10</i> | <i>1.40</i> |
| 25 | <i>0.55</i> | <i>0.78</i> | <i>1.1</i> | <i>1.4</i> | <i>1.8</i> |
| 40 | <i>0.88</i> | <i>1.2</i> | <i>1.7</i> | <i>2.2</i> | <i>2.8</i> |
| 50 | <i>1.1</i> | <i>1.6</i> | <i>2.2</i> | <i>2.8</i> | <i>3.5</i> |
| 75 | <i>1.7</i> | <i>2.3</i> | <i>3.2</i> | <i>4.1</i> | <i>5.3</i> |
| 100 | <i>2.2</i> | <i>3.1</i> | <i>4.3</i> | <i>5.5</i> | <i>7.0</i> |
| Color Bore | Grey/Grey 1.29mm | Yellow/Yellow 1.42mm | Yellow/Blue 1.52mm | Blue/Blue 1.65mm | Green/Green 1.85mm |
| Flow ml/revolution | <i>0.089</i> | <i>0.11</i> | <i>0.12</i> | <i>0.14</i> | <i>0.18</i> |
| 4 | <i>0.36</i> | <i>0.44</i> | <i>0.48</i> | <i>0.56</i> | <i>0.72</i> |
| 5 | <i>0.45</i> | <i>0.55</i> | <i>0.60</i> | <i>0.70</i> | <i>0.90</i> |
| 10 | <i>0.89</i> | <i>1.1</i> | <i>1.2</i> | <i>1.4</i> | <i>1.8</i> |
| 12 | <i>1.1</i> | <i>1.3</i> | <i>1.4</i> | <i>1.7</i> | <i>2.2</i> |
| 15 | <i>1.3</i> | <i>1.7</i> | <i>1.8</i> | <i>2.1</i> | <i>2.7</i> |
| 20 | <i>1.8</i> | <i>2.2</i> | <i>2.4</i> | <i>2.8</i> | <i>3.6</i> |
| 25 | <i>2.2</i> | <i>2.8</i> | <i>3.0</i> | <i>3.5</i> | <i>4.5</i> |
| 40 | <i>3.6</i> | <i>4.4</i> | <i>4.8</i> | <i>5.6</i> | <i>7.2</i> |
| 50 | <i>4.5</i> | <i>5.5</i> | <i>6.0</i> | <i>7.0</i> | <i>9.0</i> |
| 75 | <i>6.7</i> | <i>8.3</i> | <i>9.0</i> | <i>10.5</i> | <i>13.5</i> |
| 100 | <i>8.9</i> | <i>11.0</i> | <i>12.0</i> | <i>14.0</i> | <i>18.0</i> |
| Color Bore | Purple/Purple 2.05mm | Purple/Black 2.29mm | Purple/Orange 2.54mm | Purple/White 2.79mm | |
| Flow ml/revolution | <i>0.21</i> | <i>0.26</i> | <i>0.31</i> | <i>0.36</i> | |
| 4 | <i>0.84</i> | <i>1.04</i> | <i>1.24</i> | <i>1.44</i> | |
| 5 | <i>1.1</i> | <i>1.3</i> | <i>1.6</i> | <i>1.8</i> | |
| 10 | <i>2.1</i> | <i>2.6</i> | <i>3.1</i> | <i>3.6</i> | |
| 12 | <i>2.5</i> | <i>3.1</i> | <i>3.7</i> | <i>4.3</i> | |
| 15 | <i>3.2</i> | <i>3.9</i> | <i>4.7</i> | <i>5.4</i> | |
| 20 | <i>4.2</i> | <i>5.2</i> | <i>6.2</i> | <i>7.2</i> | |
| 25 | <i>5.3</i> | <i>6.5</i> | <i>7.8</i> | <i>9.0</i> | |
| 40 | <i>8.4</i> | <i>10.4</i> | <i>12.4</i> | <i>14.4</i> | |
| 50 | <i>10.5</i> | <i>13.0</i> | <i>15.5</i> | <i>18.0</i> | |
| 75 | <i>15.8</i> | <i>19.5</i> | <i>23.3</i> | <i>27.0</i> | |
| 100 | <i>21.0</i> | <i>26.0</i> | <i>31.0</i> | <i>36.0</i> | |

For tube selections, see Table F on inside back cover.