

400F/N economy 2 channel peristaltic pump



The 400F/N pump has premium features in an economical price. The pump shaft is supported by ball bearings which insures a long gearmotor life. The pump uses tube elements with barbed fittings for easy tube loading, and connection to transfer tubes. The tube is completely enclosed in the pumping chamber. The pump is available with four standard gearmotors. Each one is extremely small in size and has low power requirements. The pump accepts tube elements with a 1.0 mm wall thickness. The tubing is available in 4 bore sizes, allowing the user to precisely match the pump to the required flow. See page 23 for additional options.

Flow capacity

	1.05mm WT Tubing Elements			
	0.5mm	1.0mm	2.0mm	3.0mm
Bore mm	0.5mm	1.0mm	2.0mm	3.0mm
Bore "	1/50"			
Flow rate ml/revolution	0.013	0.05	0.18	0.33
Max continuous flow ml/min	2.6	10	36	66
Max intermittent flow ml/min	5.2	20	72	132

Materials of construction

Rotor, rollers, track, tube holder	Acetal (POM)
Mounting plate	Anodized aluminum
Screws, shafts	Acid resistant stainless steel

Specifications

Maximum continuous speed	200 rpm
Maximum intermittent speed	400 rpm
Weight of complete pump	245-425 g
Tube type	Tube elements with fittings

Performance against pressure

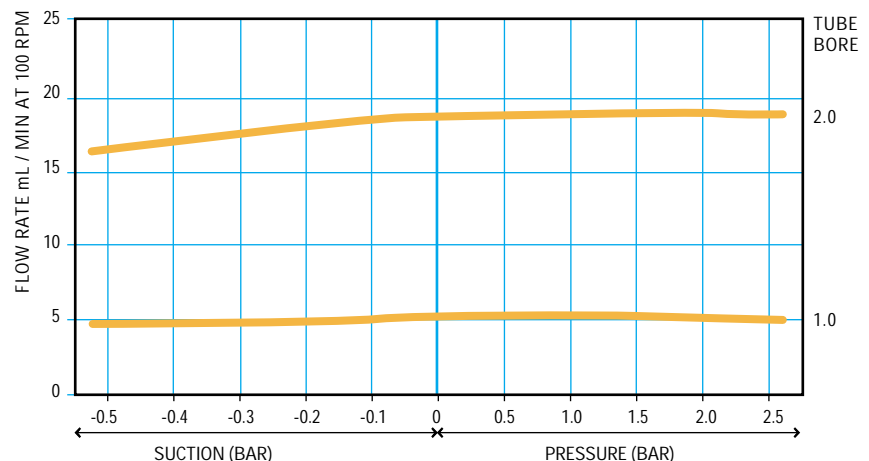
The N pumphead is designed to perform best against back pressures up to 2 bar. The diagram shows pumphead performance at 2 bar.

Conversion Factors:

Suction pressure in Bar x 747.7 = mm Hg

Suction pressure in Bar x 33.5 = Ft H₂O

Back pressure in Bar x 14.5 = psi



Ordering information

Standard DC	12rpm	40rpm	100rpm	200rpm
400FDC/N 12V	<i>040.D81N.N2C</i>	<i>040.DH1N.N2C</i>	<i>040.DP1N.N2C</i>	<i>040.DS1N.N2C</i>
400FDC/N 24V	<i>040.E81N.N2C</i>	<i>040.EH1N.N2C</i>	<i>040.EP1N.N2C</i>	<i>040.ES1N.N2C</i>
Economy DC	25rpm	75rpm	200rpm	
400FD/N 12V	<i>040.AC1N.N2C</i>	<i>040.AN1N.N2C</i>	<i>040.AS1N.N2C</i>	
400FD/N 24V	<i>040.BC1N.N2C</i>	<i>040.BN1N.N2C</i>	<i>040.BS1N.N2C</i>	
Brushless DC	15rpm	50rpm	130rpm	250rpm
400FDL/N 12V	<i>040.F91N.N2C</i>	<i>040.FK1N.N2C</i>	<i>040.FQ1N.N2C</i>	<i>040.FT1N.N2C</i>
Synchronous AC	5rpm		12rpm	25rpm
400FS/N 115 VAC 60Hz	<i>040.H41N.N2C</i>		<i>040.H81N.N2C</i>	<i>040.HC1N.N2C</i>
Synchronous AC	4rpm		10rpm	20rpm
400FS/N 230 VAC 50Hz	<i>040.J31N.N2C</i>		<i>040.J71N.N2C</i>	<i>040.JA1N.N2C</i>

See motor descriptions on page 46.

Flow rates

Bore mm Bore "	Per channel 1.05mm WT Tubing			
	0.5mm 1/50"	1.0mm	2.0mm	3.0mm ¹
Standard DC 12rpm	<i>0.16</i>	<i>0.6</i>	<i>2.2</i>	<i>4.0</i>
Standard DC 40rpm	<i>0.52</i>	<i>2.0</i>	<i>7.2</i>	<i>13.2</i>
Standard DC 100rpm	<i>1.3</i>	<i>5.0</i>	<i>18.0</i>	<i>33.0</i>
Standard DC 200rpm	<i>2.6</i>	<i>10.0</i>	<i>36.0</i>	<i>66.0</i>
Economy DC 25rpm	<i>0.33</i>	<i>1.3</i>	<i>4.5</i>	<i>8.3</i>
Economy DC 75rpm	<i>1.0</i>	<i>3.8</i>	<i>13.5</i>	<i>24.8</i>
Economy DC 200rpm	<i>2.6</i>	<i>10.0</i>	<i>36.0</i>	<i>66.0</i>
Brushless DC 15rpm	<i>0.20</i>	<i>0.75</i>	<i>2.7</i>	<i>5.0</i>
Brushless DC 50rpm	<i>0.65</i>	<i>2.5</i>	<i>9.0</i>	<i>16.5</i>
Brushless DC 130rpm	<i>1.7</i>	<i>6.5</i>	<i>23.4</i>	<i>42.9</i>
Brushless DC 250rpm	<i>3.3</i>	<i>12.5</i>	<i>45.0</i>	<i>82.5</i>
Synchronous AC 5rpm	<i>0.07</i>	<i>0.25</i>	<i>0.90</i>	<i>1.7</i>
Synchronous AC 12rpm	<i>0.16</i>	<i>0.6</i>	<i>2.2</i>	<i>4.0</i>
Synchronous AC 25rpm	<i>0.33</i>	<i>1.3</i>	<i>4.5</i>	<i>8.3</i>
Synchronous AC 4rpm	<i>0.05</i>	<i>0.20</i>	<i>0.72</i>	<i>1.3</i>
Synchronous AC 10rpm	<i>0.13</i>	<i>0.5</i>	<i>1.8</i>	<i>3.3</i>
Synchronous AC 20rpm	<i>0.26</i>	<i>1.0</i>	<i>3.6</i>	<i>6.6</i>

¹ rated for silicone tube only

For tube selections, see Table C on page 48.

