

Selecting Tubing and Connectors for Minipuls 3 Pump

Select the peristaltic tubing diameter that gives the desired flow rate by reference to the tables. For example, if you have a standard pump head and your maximum flow rate is 5 mL/min, you should select a tubing material appropriate to your application and a tubing size where the maximum flow rate specified in the table is greater than 5 mL/min.

Maximum Flow Rates for Standard Pump Head

Material	Internal diameter (mm)	Reference tubing (calibrated tubing)	Color coding	Extension tubing	Connectors	Flow rate (mL/min)			
						5 rpm	15 rpm	30 rpm	48 rpm
PVC	0.25	F117932	orange/blue	F117952	Metal Sleeve F117985	0.044	0.132	0.259	0.407
	0.38	F117933	orange/green	F117953	Metal Sleeve F117985	0.073	0.219	0.436	0.695
	0.51	F117934	orange/yellow	F117954	Metal Sleeve F117985	0.152	0.450	0.894	1.42
	0.76	F117936	black/black	F117956	Metal Sleeve F117986	0.225	0.669	1.34	2.14
	1.02	F117938	white/white	F117958	Metal Sleeve F117986	0.433	1.29	2.56	4.07
	1.30	F117940	grey/grey	F117960	Plastic connector F1179941	0.651	1.96	3.88	6.15
	1.52	F117942	yellow blue	F117962	Plastic connector F1179941	0.965	2.89	5.73	9.11
	1.65	F117943	blue/blue	F117963	Plastic connector F1179941	1.10	3.28	6.55	10.5
	2.06	F117945	purple/purple	F117965	Plastic connector F1179941	1.57	4.76	9.48	15.7
	2.29	F117946	purple/black	F117966	Plastic connector F1179941	2.04	6.53	12.4	19.7
	2.79	F117948	purple/white	F117968	Plastic connector F1179951	2.41	7.67	14.6	23.2
	3.16	F117949	black/white	F117969	Plastic connector F1179951	3.20	10.1	18.7	29.0
ISOVERSINIC	0.5	F1817741	n/a	F117740	Metal Sleeve F117986	0.189	0.558	1.11	1.76
	1.0	F1817743	n/a	F117742	Metal Sleeve F117986	0.434	1.28	2.49	3.99
	2.0	F1817745	n/a	F117744	Plastic connector F1179941	1.36	4.05	7.97	12.6
	3.0	F117747	n/a	F117746	Plastic connector F1179951	2.91	8.57	17.4	27.3
	4	F117749	n/a	F117748	-	3.61	10.6	21.2	33.0
SILICONE	0.6	F1825111	orange/white	F1825131	Metal Sleeve F117986	0.164	0.490	0.985	1.54
	1.0	F1825112	white/white	F1825132	Metal Sleeve F117986	0.437	1.29	2.58	4.14
	2.0	F1825113	pink/pink	F1825133	Plastic connector F1179951	1.50	4.56	9.23	14.7
	2.8	F1825114	pink/white	F117975	Plastic connector F1179951	2.47	7.91	14.7	22.8
PHARMED	0.5	F1825101	orange/yellow	F1825121	Metal Sleeve F117986	0.149	0.448	0.911	1.42
	1.0	F1825102	black/black	F1825122	Metal Sleeve F117986	0.499	1.51	2.99	4.80
	2.0	F1825103	pink/pink	F1825123	Plastic connector F1179941	1.53	4.58	9.43	15.0

Approximate values determined with water (grade 3 ISO 9636) at 21.5°C, no differential pressure.

Maximum Flow Rate for High-Flow Pump Head

Material	Internal diameter (mm)	Reference tubing (calibrated tubing)	Flow rate (mL/min)			
			5 rpm	15 rpm	30 rpm	48 rpm
PVC	2.06	F117965	2.60	7.38	15.1	24.1
	2.29	F117966	3.09	9.00	18.4	29.3
	2.79	F117968	4.41	12.3	25.6	40.7
	3.16	F117969	5.63	15.1	30.6	49.2
	4.0	F117970	10.4	20.6	45.9	75.0
	5.0	F117980	16.5	41.7	71.7	113
	6.0	F117981	17.7	52.6	102	163
	8.0	F117982	23.9	69.5	135	213
ISOVERSINIC	2.0	F117744	2.31	6.43	13.9	22.8
	3.0	F117746	5.17	15.1	30.2	47.9
	4.0	F117748	11.0	30.7	53.9	85.7
	6.0	F117750	21.7	62.9	111	181
SILICONE	2.0	F1825133	2.40	7.06	15.1	24.6
	3.0	F117975	4.99	14.0	28.2	44.1
	4.0	F117976	7.69	23.1	44.6	70.8
	5.0	F117977	11.3	38.5	71.7	115
	6.0	F117978	16.8	47.0	94.2	150
	7.0	F117979	23.7	69.8	136	220
PHARMED	2.0	F1825123	2.85	7.96	16.4	25.6
	3.2	F1825124	5.66	16.8	34.0	52.6
	6.4	F1825125	18.8	55.0	108	171

Approximate values determined with water (grade 3 ISO 9636) at 21.5°C, no differential pressure.