



NE-1010 Single Syringe Pump Maximum and Minimum Flow Rates

Mfgr.	Syringe (cc)	ID (mm)	Max Rate (ml/hr)	Min Rate (µl/hr)	Max Rate (mL/min)
B-D	1	4.699	191.1	1.459	3.185
	3	8.585	637.9	4.868	10.63
	5	11.99	1244	9.495	20.74
	10	14.43	1802	13.76	30.04
	20	19.05	3141	23.97	52.35
	30	21.59	4035	30.79	67.25
	60	26.59	6120	46.7	102
HSW Norm-Ject	1	4.69	190.4	1.453	3.173
	3	9.65	806.1	6.151	13.43
	5	12.45	1341	10.24	22.36
	10	15.9	2188	16.7	36.47
	20	20.05	3479	26.55	57.99
	30	22.9	4539	34.64	75.65
Monoject	1	5.74	285.2	2.176	4.753
	3	8.941	692	5.28	11.53
	6	12.7	1396	10.66	23.26
	12	15.72	2139	16.33	35.65
	20	20.12	3504	26.74	58.4
	35	23.52	4788	36.54	79.81
	60	26.64	6143	46.88	102.3
Terumo	1	4.7	191.2	1.459	3.187
	3	8.95	693.4	5.291	11.55
	5	13	1462	11.17	24.38
	10	15.8	2160	16.49	36.01
	20	20.15	3514	26.82	58.57
	30	23.1	4619	35.25	76.98
	60	29.7	7635	58.26	127.2
Poulten & Graf (Glass)	1	6.7	388.5	2.965	6.476
	2	8.91	687.2	5.244	11.45
	3	9.06	710.5	5.422	11.84
	5	11.75	1195	9.119	19.91
	10	14.67	1862	14.22	31.04
	20	19.62	3332	25.43	55.53
	30	22.69	4456	34.01	74.27
	50	26.96	6291	48.01	104.8
100	34.21	9999	77.3	168.8	

	Syringe (µl)	ID (mm)	Max Rate (µl/hr)	Min Rate (µl/hr)	SGE Syringe (mL)	ID (mm)	Max Rate (ml/hr)	Min Rate (µl/hr)
SGE (Glass - Gas Tight)	5	0.343	1081	0.008	.25	2.303	45.91	0.351
	10	0.485	2036	0.016	.5	3.257	91.82	0.701
	25	0.728	4587	0.036	1	4.606	183.6	1.402
	50	1.03	9183	0.071	2.5	7.284	459.2	3.505
	100	1.457	9999	0.141	5	10.3	918.3	7.007
Hamilton Micro-litre (Glass)	0.5	0.103	91.83	0.001	10	14.57	1837	14.03
	1	0.146	184.5	0.002	25	23.03	4591	35.03
	2	0.206	367.3	0.003	50	27.5	6546	49.95
	5	0.326	919.9	0.008	100	34.99	9999	80.86

Specifications

Mechanical & Electrical

Syringe sizes:	Up to 60 cc
Number of syringes:	1
Motor type:	Step motor
Motor steps per revolution:	200
Motor to drive screw ratio:	15/28
Drive screw pitch:	20 revolutions/”
DC connector:	2.5 mm, center positive
Voltage at DC connector:	12V DC at full load
Amperage:	1000 mA at full load
Power supply type:	Unregulated linear external wall adapter, country and power source specific
Power supply output rating:	12V DC @ 1000 mA
Dimensions:	8 3/4” x 5 3/4” x 4 1/2” High (22.86 cm x 14.605 cm x 11.43 cm)
Weight:	3.8 lbs. (1.63 kg)
Allen Wrench	3/32 Hex

Operational

Maximum speed:	18.36964 cm/min
Minimum speed:	0.008409 cm/hr
Maximum pumping rate:	6120 mL/hr with a B-D 60 cc syringe
Minimum pumping rate:	1.459 µL/hr with a B-D 1 cc syringe
Maximum force:	100 lbs. at minimum speed, 18 lbs. at maximum speed
Number of Program Phases:	41
RS-232 pump network:	100 pumps maximum
RS-232 selectable baud rates:	300, 1200, 2400, 9600, 19200
Syringe inside diameter range:	0.100 to 50.00 mm