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Harvard Apparatus Peristaltic Pump 44 Performance Specifications

Pump 44 Specifications

Type Single Syringe Infusion/Withdrawal Size Syringe Infusion/Withdrawal 257 x 289 x 152 mm (10.1 x 11.4 x 6 in)

Weight 7.25 kg (16 lb)

Power 115/230 VAC, 50/60 Hz via selector switch, 65 W

Fuse 3AG 1/2 AMP 250 V SLO-BLO

Leakage to Ground Typically $< 10 \mu A$ Ground Resistance Typically < 0.05

Voltage Operating Range 95 to 130 VAC, 220 to 260 VAC

Drive Motor 1.8° stepper

Motor Drive Circuitry Microprocessor controlled from 1/2 to 1/32 microstepping

Timing Belt Drive 2:

Lead Screw Pitch 24 threads/in

Motor Steps per One-

Revolution of Lead Screw From 800 to 12,800 dependent on rate

Step Rate:

Minimum 27.3 sec/step
Maximum 416.7 μ sec/step

Minimum Pusher-

Advance/Step 0.082 μ m

Pusher Travel Rate:

Minimum 0.18 μ m/min 190.676 mm/min

Dynamic Speed Range 1,059,311 to 1

Maximum Force 193 lb

Maximum Pressure 1500 psi with an 8 ml stainless steel syringe

 $\begin{array}{ll} Accuracy & \pm 1\% \\ Reproducibility & \pm 0.1\% \end{array}$

Calibration Enter syringe dia. from table, any size, any make up to 50 mm dia.

Syringe Size:

 $\begin{array}{ll} \mbox{Minimum} & 0.5 \; \mu \; l \\ \mbox{Maximum} & 140 \; ml \end{array}$

Flow Rate Range:

 $\begin{array}{ll} \mbox{Minimum} & 0.0001 \ \mu \ l/hr \ (0.5 \ \mu \ l \ syringe) \\ \mbox{Maximum} & 220.82 \ ml/min \ (140 \ ml \ syringe) \end{array}$

Display 20 character alphanumeric vacuum fluorescent; 5 LED indicators

RS-232 Interface Multiplexed dual bidirectional ports

Non-Volatile Memory Storage of all settings



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