

**Continuous Cycle Syringe Pump.** The KDS210C can hold up to four syringes and can cycle continuously back and forth in a push-pull action. As two syringes are infusing, two syringes are withdrawing at the same rate. At the end of the set volume the direction is automatically reversed and the next cycle begins. With the use of 3-way valves the pump can empty and refill syringes for a continuous dispense.

## **Features**

- Holds four syringes, 10  $\mu$ l to 60 ml each, With larger syringes the full volume may not be useable. [60 ml syr 40 ml useable, 30 ml syr full]
- Backlit LCD display
- Knob locks/unlocks drive block for effortless, drag-free adjustment
- Simple menu-driven setup:
  - o select syringe size from displayed table
  - o dispense volume
  - o dispense flow rate
- Continuous dispense volume display
- Preset volume control and automatic shut-off
- Settings can be reviewed or changed during operation
- Stall detection
- Choice of unit selection
- Last settings stored in permanent memory
- Built-in RS232C interface for computer "daisy chaining" up to 100 pumps
- TTL interface for foot switch, timer, relay control, outputs for run indicator, valve control.

Specifications		Flow Rates		
Pump Type:	Infusion / Withdrawal	Syringe	Minimum	Maximum
		10 ml	0.001 <b>mi/</b> h	22.98 ml/min
Max. No. of Syringes	• Four	25 ml	0.001 <b>mi /</b> h	0.884 <b>m/</b> min
		50 ml	0.001 <b>mi/</b> h	105.8 <b>mi/</b> min
Syringe Size	• 10 µl to 30 ml	100 ml	0.001 <b>mi /</b> h	212.6 <b>m/</b> min
		250 ml	0.001 <b>mi/</b> h	527.6 <b>m/</b> min
Dimensions	• 11 x 9 x 5.5 in.	500 ml	0.001 <b>mi /</b> h	1.06 ml/min
	• 28 x 23 x 1414 cm	1 ml	0.001 <b>m/</b> h	2.203 ml/min
		3 ml	0.001 <b>mi /</b> h	7.36 ml/min
Weight	• 9 lb (4 kg)	5 ml	0.001 <b>m/</b> h	14.33 ml/min
		10 ml	0.001 <b>mi /</b> h	20.91 ml/min
Linear Force	• 40 lb (18 kg)	20 ml	0.001 <b>m/</b> h	36.19 ml/min
		30 ml	0.001 <b>mi /</b> h	46.49 ml/min
Advance Per Microstep	• 0.165 micron (1/16 step)			
Max Step Rate (1/2 Step)	• 1600/sec			
Min Step Rate	• 1 step / 30 sec.			
Accuracy	• ± <1%			
Reproducability	• ± 0.1%			
Audible Alarm	(Optional) **			