

# KDS120



## Push-Pull Syringe Pump

**This pump provides simultaneous infusion and withdrawal at the same rate with opposing syringes on the same drive screw.**

### *Features*

- Holds two syringes 10  $\mu$ l to 10 ml each
- Simple menu-driven setup:
  - select syringe size from displayed table
  - set dispense volume
  - set dispense flow rate
- Easy to read bright, backlight display
- Dispense volume displayed and has automatic shutoff at completion
- Volume and flow rate units ( $\mu$ l/hr or ml/hr) are selected automatically based on syringe size
- Last settings stored in permanent memory
- Button release of drive nut for easy syringe installation
- Choice of run / stop after a power interruption

## Specifications

Pump Type:	<ul style="list-style-type: none"> <li>Infusion</li> </ul>
Max. No. of Syringes	<ul style="list-style-type: none"> <li>One</li> </ul>
Syringe Size	<ul style="list-style-type: none"> <li>10 <math>\mu</math>l to 10 ml</li> </ul>
Dimensions	<ul style="list-style-type: none"> <li>9 x 6 x 5 in.</li> <li>23 x 15 x 14 cm</li> </ul>
Weight	<ul style="list-style-type: none"> <li>4.5 lb (2 kg)</li> </ul>
Linear Force	<ul style="list-style-type: none"> <li>20 lb (9 kg) min.</li> </ul>
Advance Per Microstep	<ul style="list-style-type: none"> <li>0.529 micron (1/2 step)</li> </ul>
Max Step Rate (1/2 Step)	<ul style="list-style-type: none"> <li>400 steps/sec</li> </ul>
Min Step Rate	<ul style="list-style-type: none"> <li>1 step / 3 sec.</li> </ul>
Accuracy	<ul style="list-style-type: none"> <li><math>\pm &lt; 1\%</math></li> </ul>
Reproducibility	<ul style="list-style-type: none"> <li><math>\pm 0.1\%</math></li> </ul>
Audible Alarm	<ul style="list-style-type: none"> <li>(Optional) **</li> </ul>

## Flow Rates

Syringe	Minimum	Maximum
10 ml	0.1 ml/h	126 ml/h
25 ml	0.001 ml /h	0.884 ml/h
50 ml	0.2 ml/h	625 ml/h
100 ml	1.0 ml /h	1274 ml/h
250 ml	2.0 ml/h	3164 ml/h
500 ml	3.0 ml /h	6359 ml/h
1 ml	0.01 ml/h	13.2 ml/h
2.5 ml	0.02 ml/h	31.7 ml/h
3 ml	0.03 ml/h	44.9 ml/h
5 ml	0.03 ml/h	87.0 ml/h
10 ml	0.1 ml/h	125 ml/h