



## INFUSION PUMPS

*by KDS*

Cat. No.5000

**SO ADVANCED THEY'RE SIMPLE !!**

### General

Ugo Basile presents an entirely new generation of micro-processor-controlled syringe pumps. They are designed specifically for applications requiring high metering precision at low, pulse-free flow rates.

KDS pumps, manufactured by KD Scientific Inc., U.S.A., provide a unique combination of sophisticated features and advanced microstepping motor-drive technology. The result? KDS pumps routinely perform many of the tasks that other pumps make you do manually. So you have more time for what's really important: your research.

KDS pumps are engineered by the designer of the best-selling laboratory syringe pump, to ensure you of years of unsurpassed accuracy and reliability. In addition, you'll find they are extremely simple to set-up and use. And surprisingly affordable.



### Setup is as easy as:

- Select syringe from displayed table
- Enter volume to be dispensed
- Enter flow rate, then press "start" but-ton. It's that fast...and that simple!

**Ugo Basile: more than 10,000 citations**

## Common to all models

- A simple menu-driven set-up without printed look-up tables **performs rate and volume control and auto-matic shut-off**. Just set the volume you want dispensed. Volume is tracked continuously on the LC display. Then, when the preset volume has been dispensed, the pump shuts off automatically.
- **An alphanumeric display helps eliminate reading errors**. Their easy-to-read display provides real-time readings using both parameters and values for clearer, mistake-free readings.
- **You can control KDS pumps in many different ways**. Built-in TTL and RS-232C interfaces permit easy external control.

## Operation

1. Find the syringe you use from the displayed table. Enter its code number.
2. Enter the volume to be dispensed
3. Enter the flow rate, then press the "start" button. It's that fast... and simple! Your settings are permanently stored in memory – there's no need to re-enter them each day

## Ordering Information

Cat. No.	Mode	N. of Syringes	Dim. cm	Weight Kg.
KDS 100	Infusion	1	23x15.3x14	2.00
KDS 101	Infusion	2	23x15x14	2.00
KDS 120	Push/pull	1+1	23x15x14	2.00
KDS 200	Infusion	2	28x23x14	4.00
KDS 210	Infusion/ Withdrawal	2	28x23x14	4.00
KDS 220	Infusion	Multiple	28x30.5x14	4.25
KDS 230	Infusion/ Withdrawal	Multiple	28x30.5x14	4.25
KDS 250	Infusion	4 (different size)	28x23x15.3	4.00
KDS 260	Push/pull	2+2	28x23x14	4.25
KDS 310	Nano Pump	1	2 items	2.00

## Flow Rates

### Models KDS 100 & KDS 120

Syringe	Minimum	Maximum
10 µl	0.1 µl/h	126.5 µl/h
25 µl	0.1 µl/h	318,8 µl/h
50 µl	0.2 µl/h	625 µl/h

100 µ	1.0 µl/h	1274 µl/h
250 µ	2.0 µl/h	3164 µl/h
500 µ	3.0 µl/h	6359 µl/h
1ml	0.01 ml/h	13,2 ml/h
2,5 ml	0.02 ml/h	31,7 ml/h
3 ml	0.02 ml/h	44.9 ml/h
5 ml	0.03 ml/h	87.0 ml/h
10 ml	0.1 ml/h	125.0 ml/h
20 ml	0.1 ml/h	219.0 ml/h
30 ml	0.1 ml/h	282.0 ml/h
60 ml	0.2 ml/h	426.0 ml/h

### Model KDS 101

Syringe	Minimum	Maximum
10 µl	0.001 µl/min	0.350 µl/min
25 µl	0.001 µl/min	0.884 µl/min
50 µl	0.001 µl/min	1.759 µl/min
100 µl	0.001 µl/min	3.526 µl/min
250 µl	0.01 µl/min	8.78 µl/min
500 µl	0.01 µl/min	17.65 µl/min
1 ml	0.1 µl/min	35.2 µl/min
3 ml	0.1 µl/min	122.5 µl/min
5 ml	0.1 µl/min	176.2 µl/min
10 ml	0.001 µl/min	0.351 µl/min
20 ml	0.001 µl/min	0.602 µl/min
30 ml	0.001 µl/min	0.773 µl/min
60 ml	0.001 µl/min	1.175 µl/min

### Models KDS 200/220, KDS 210/230, KDS 250/260

Syringe	Minimum	Maximum
10 µl	0.001 µl/h	21.1 µl/min
25 µl	0.003 µl/h	53.15 µl/min
50 µl	0.005 µl/h	105.8 µl/min
100 µl	0.009 µl/h	212.6 µl/min
250 µl	0.021 µl/h	527.6 µl/min
500 µl	0.042 µl/h	1060 µl/min
1 ml	0.083 µl/h	2119 µl/min
3 ml	0.288 µl/h	7360 µl/min
5 ml	0.414 µl/h	634 ml/h
10 ml	0.828 µl/h	1270 ml/h
20 ml	1.414 µl/h	2171 ml/h
30 ml	1.817 µl/h	2789 ml/h
60 ml	2.757 µl/h	4234 ml/h
140 ml	5.746 µl/h	8834 ml/h