

## Benefits

- Entry level Legato model
- Accurate flow delivery
- High precision fluid dosing
- Use any manufacturer syringe
- Constant and variable flow rates
- User selectable volume delivery

## Features

- Holds one or two syringes from 0.5  $\mu$ l to 10 ml
- High resolution color touch screen
- Unparalleled ease of use
- Password lock
- LED light on front panel
- Full metal chassis
- Built in syringe table
- Up to 30 lbs (13.6 kg) linear force
- Built in RS-485 interface
- USB port
- Footswitch Interface
- Protection with spill dam
- CE, UL, CSA, CB Scheme, EU RoHS

## Applications

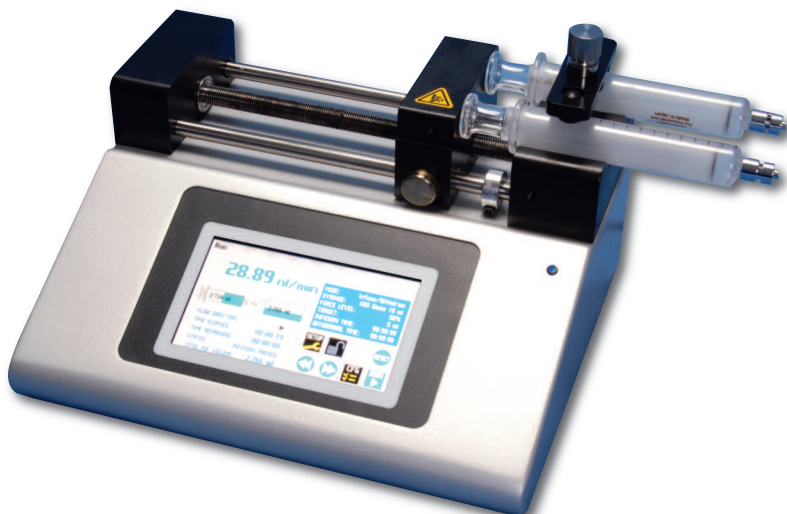
- Microfluidics
- Drug Discovery
- Nanofluidics
- Flow Cytometry
- Mass Spec Calibrant
- Organic Synthesis
- Surface Plasma Resonance

## Markets

- Pharmaceutical
- Biotech
- Chemical
- Neuroscience
- Research and Development
- Government
- Petrochemical
- Food and Beverage

# KDS Legato™ 101

## Infuse Only Syringe Pump



## The NEW Legato 101 nanoliter syringe pump is ideal for organic synthesis and other applications with small volumes under 10ml

The KDS Legato 101 infuse only dual syringe is ideal for applications where dual syringes are required with small volumes under 10ml. The Legato 101 has a wide flow rate range from 1.26 pl/min to 25.99 ml/min depending on syringe size. The large touch screen color display allows the user to see all of the pumps operating parameters to ensure proper operation during the experiments. Syringe size and flow rate are easily displayed as well as the volume delivered and the elapsed time. Set up is easy using the icon driven software.

The Legato 101 is an infuse only dual syringe pump. It accommodates two syringes from 0.5  $\mu$ l to 10 ml. The run screen has all of the pump parameters, as well as, the pumps running conditions. The basic pump offers the same easy to use touch screen configuration and "run" screen as the more advanced Legato 200. An led light on the front panel makes it easy to see if the pump is running. Syringe size and flow rates are easily displayed as well as the volume delivered and the elapsed time. Any type of syringe can be used in the unit including glass, plastic and stainless steel. The pumps are versatile and can be connected through

the RS485 interface. Advanced micro stepping techniques are employed to further reduce the step angle to eliminate flow pulsation. The accuracy is  $\pm 0.5\%$ . A wide dynamic flow range from pico liters per minute to millimeters per minute can be programmed into the pump. Add the New Adagio software to maximize the use of the pumps functions and features. Adagio allows you to configure the pump through the software as well as operate one or multiple pumps. In addition the National Instruments labview drivers are available on their website.

KD Scientific pumps are acknowledged as the industry's highest values solution for delivering precise and smooth flow. KD Scientific is recognized worldwide for quality and reliability at an economical price and has the broadest line of syringe pumps to meet your specific application. KD Scientific is committed to delivering the highest level of customer satisfaction, as well as technical support for all their products.

**NOTE: KD Scientific syringe pumps are for laboratory use only.**

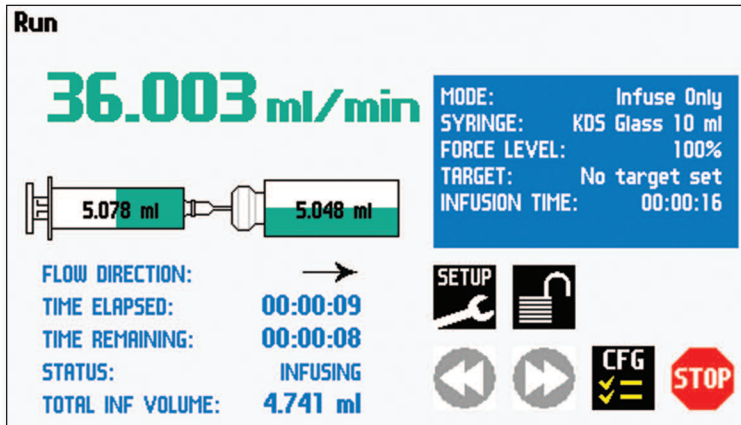
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## Intuitive Run Screen

Combining multiple parameters simultaneously with internationally recognizable icons allow the Legato™ Series to provide a new level of intuitive syringe pump operation.



## Flow Rates

Syringe	Diameter	Minimum	Maximum
0.5 µl	0.103 mm	1.260 µl/min	1.325 µl/min
1 µl	0.146 mm	2.520 µl/min	2.651 µl/min
2 µl	0.206 mm	5.100 µl/min	5.299 µl/min
5 µl	0.343 mm	14.100 µl/min	14.690 µl/min
10 µl	0.485 mm	28.260 µl/min	29.380 µl/min
25 µl	0.729 mm	63.900 µl/min	66.370 µl/min
50 µl	1.03 mm	127.600 µl/min	132.500 µl/min
100 µl	1.457 mm	255.20 µl/min	265.100 µl/min
250 µl	2.304 mm	638.300 nL/min	662.900 µl/min
500 µl	3.256 mm	1.275 nL/min	1.324 ml/min
1000 µl	4.608 mm	2.553 nL/min	2.652 ml/min
1 ml	4.699 mm	2.655 nL/min	2.757 ml/min
3 ml	8.585 mm	8.863 nL/min	9.204 ml/min
5 ml	11.989 mm	17.290 nL/min	17.950 ml/min
10 ml	14.427 mm	25.030 nL/min	25.990 ml/min



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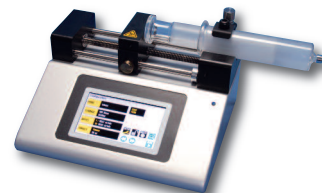
**Agence Sud :**  
 Hôtel d'Entreprises de La Croix Rouge - Lot A4  
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**www.dentalabo.fr**

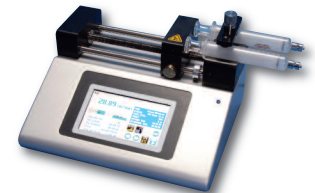
## Specifications

Model	KDS Legato 101
Syringe Size	0.5 µl to 10 ml
Power	100-240 VAC: 50/60 Hz, 50 W, 0.5 A fuse
Motor Drive Control	Microprocessor with 1/16 microstepping
Linear Force (Maximum)	13.6 kg (30 lbs) @ 100% Force Selection
Number of Microsteps per One Revolution of Lead Screw	15,360
Step rate (Minimum)	27.5 sec/µstep
Step rate (Maximum)	26 µsec/µstep
Drive Motor	0.9 degree Stepper Motor
Pusher Travel Rate - (Minimum)	0.15 µm/min
Pusher Travel Rate - (Maximum)	159 mm/min
Flow Rate (Minimum)	1.26 µl/min (0.5 µl syringe)
Flow Rate (Maximum)	25.99 ml/min (10 ml syringe)
Dimensions	22.6 x 19.05 x 15 cm (9 x 7.5 x 5 in)
Weight	2.66 kg (5.9 lbs)
Connectors	RS-232 - 9 Pin D-Sub Connector, RS485 - IEEE-1394 6 pos, USB - Type B

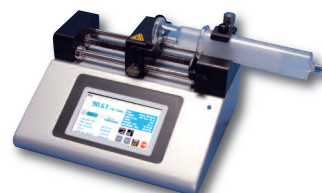
## KDS Legato™ 100 Family of Syringe Pumps



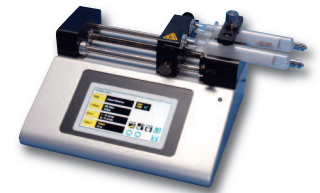
**Legato 100**  
Infuse Only  
Single Syringe



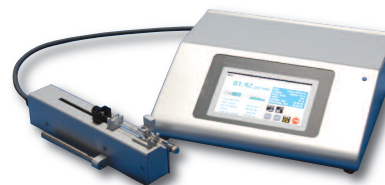
**Legato 101**  
Infuse Only  
Dual Syringe



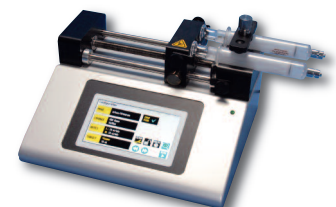
**Legato 110**  
Infuse/Withdraw  
Single Syringe



**Legato 111**  
Infuse/Withdraw  
Dual Syringe



**Legato 130**  
Infuse/Withdraw  
Remote Control Nanoliter



**Legato 180**  
Infuse/Withdraw  
Picoliter

*Recommended for microfluidic applications*