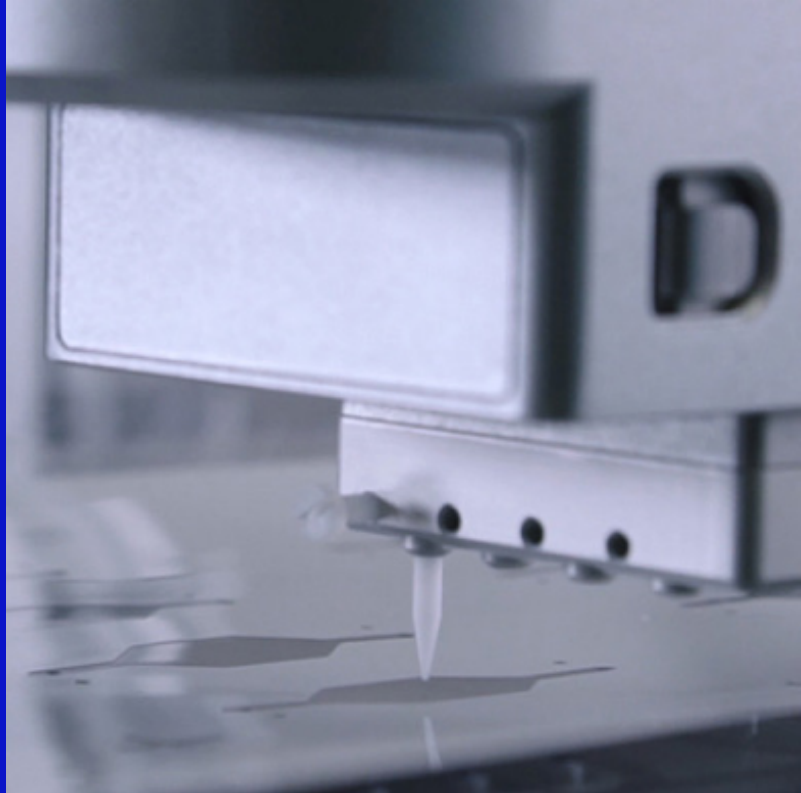


PRODUCT SHEET

Ginolis Kaste Nano

High-precision
dispensing



Features

The Ginolis Kaste Nano is designed for accurate and repeatable dispensing from nanoliter to microliter range volumes. The pump is available in two different models that are differentiated by volume size. The Kaste Nano can be configured with Ginolis Cecilia-L dispensing platform or integrated individually to customized platforms.

Flexible

The Kaste Nano can be integrated into automation platforms and is also available in an easy-to-use starter kit.

Intelligent

Integrated pressure sensor for a clog, leak and air in fluid line detection, pump pre-pressurizing, and automated monitoring of pressure stabilization during pre-dispensing.

Low Maintenance

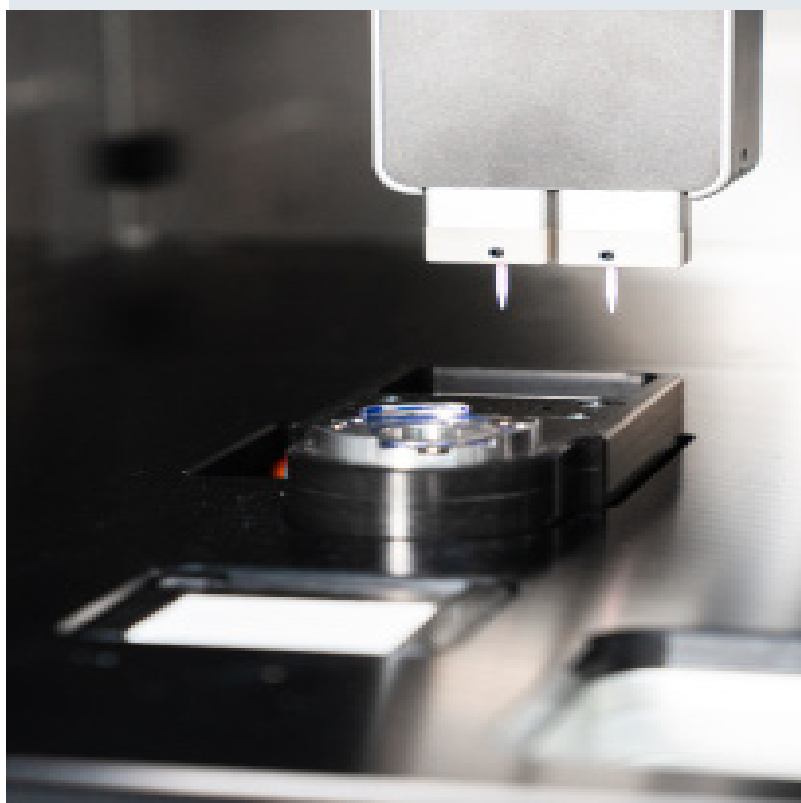
PMB bellows system has no friction parts, resulting in a pump with extremely long life and no need for replacement seals.

Dispensing technology

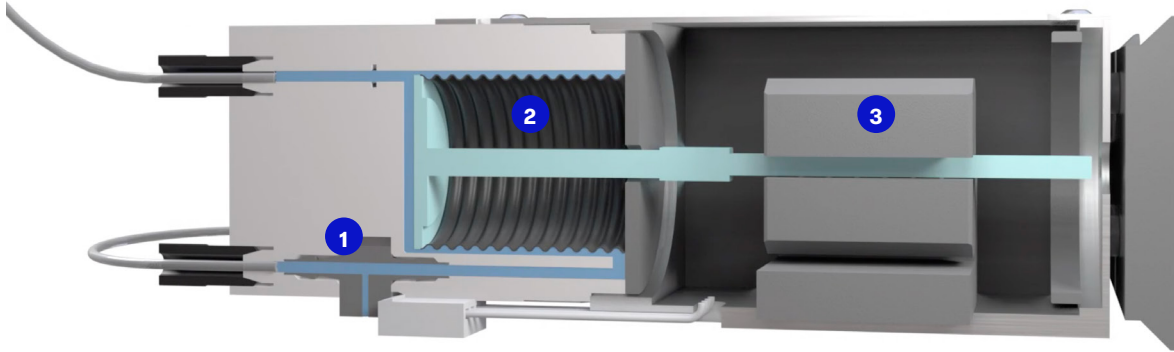
The principle behind the Ginolis Kaste Nano is a highly accurate piezo motor connected to a bellows that is contracted and expanded with the motor. In doing so, the bellows displace a volume in a closed chamber equal to the aspirated or dispensed volume.

The Kaste Nano has a solenoid dispensing valve and a ceramic tip to dispense volumes as low as one nanolitre. The dispensing pump displaces a volume of liquid defined by the operator, and the solenoid valve is opened for a short amount of time (100 s of microseconds) to release a drop. The pump can dispense up to 100 drops per second.

Volume range Kaste Nano I	1nL - 150 µL
Volume range Kaste Nano II	10nL - 1500 µL
Dimensions (mm)	H 127 W 44.5 D 148.5
Bellows material	Coated with Parylene
Bellows housing material	PEEK
Maximum dosing speed	100 dose/sec
Bellow stroke	4 mm
Kaste Nano ISe precision (depending on the conditions and the liquid)	<1% CV (>50 nL) <3% CV (@50 nL) <8% (@2,5 nL)
Interface	RS-232 and RS-485 Baud rate 9600 bps – 460kbps
Auxiliary	Digital input and output



Functional description



1. Pressure sensor
2. Bellows
3. Piezo motor



A highly accurate piezo motor is connected to a bellows contracted and expanded with the motor



The bellows displace a volume in a closed chamber equal to the aspirated or dispensed volume



A solenoid dispensing valve and a ceramic tip dispense volumes as low as one nanolitre



The dispensing pump displaces a volume of liquid defined in software



The solenoid valve is opened for a very short time to release a drop



The pump can dispense up to 100 drops per second