

# Ginolis PMBi Pump

For accurate and repeatable dispensing from nanoliter to microliter range volumes

## Flexible

The PMBi pump 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

MB 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 PMBi Pump 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.

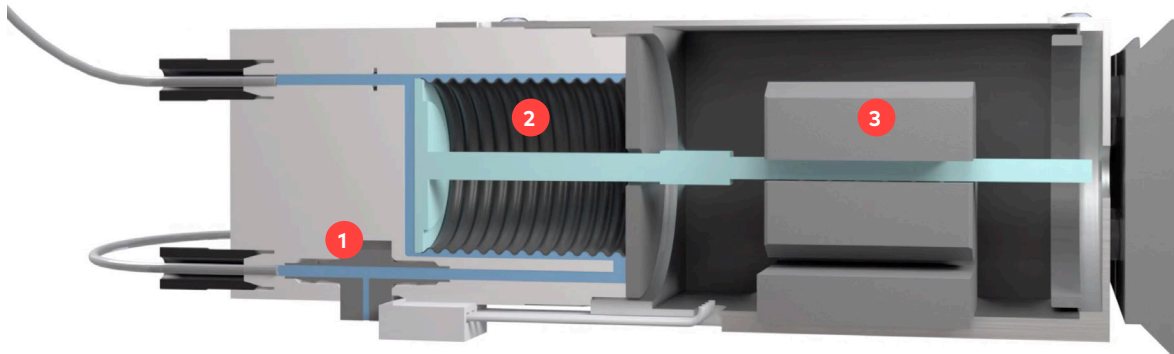
The PMBi pump has a solenoid dispensing valve and a ceramic tip to dispense volumes as low as one nanolitre. The dispensing pump displaces a volume of liquid defined by the operator, and the solenoid valve is opened for a short amount of time (100 s of microseconds) to release a drop. The pump can dispense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



## Specifications

Volume range PMBi 150Se	1nl - 150 µl
Volume range PMBi 1500Se	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
PMBi 150Se 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
Optional Interface	Ethernet

# PMBi Pump 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

CONTACT US  
Europe +358 10 315 3600  
US +1 844 446 6547  
sales@ginolis.com

JOIN THE  
BIO-CONVERGENCE  
REVOLUTION 