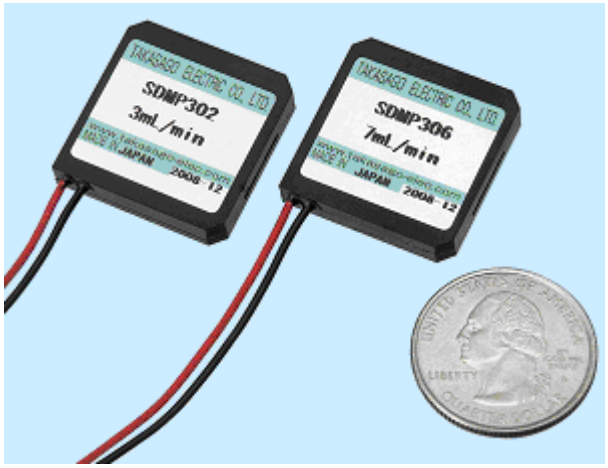
TAKASAGO FLUIDIC SYSTEMS

PIEZOELECTRIC MICRO PUMPS

SDMP302/306



Features

- Small-sized, lightweight and slim.
- Supply of microfluidic volumes is possible.
- No metal is used as wetted materials.
- Low noise and low power consumption.
- Flow rate is adjustable by changing drive voltage or drive frequency.
- Self-priming is possible.

Specifications

Model Number	SDMP302	SDMP306
Pump Type	Piezoelectric Diaphragm Pump	
Flow Rate	3 mL/min (Typical)	7 mL/min (Typical)
Pump Pressure	40 kPa (Typical)	45 kPa (Typical)
Drive Voltage	60 ~ 250 Vp-p	
Drive Frequency	10 ~ 60 Hz	
Suction Load Pressure	-1.0 kPa (Typical)	
Operating Temp.	5 ~ 50 °C	
Wetted Materials	COC (Cyclic Olefin Copolymer) EPDM (Ethylene Propylene Diene Monomer)	
External Dimensions	25 × 25 × 4.8 mm	
Weight	Approx. 6 g	
Input / Output Pipes	ϕ0.5-ϕ1.2–L2.5 mm	ϕ1.3-ϕ2.1–L3.5 mm

* The drive waveform specified above is a sine wave.
  When driven using our standard waveform, the flow rate and pump pressure will increase.
* The higher flow version, SDMP320, is also available.
  - Typical flow rate: 20 ml/min
  - External dimensions: 33 x 33 x 5.5 mm
  - Input / output pipes: φ1.8-φ2.8- L5.0 mm

Note: Details including specifications may change without notification.

Tygon® Tubing (accessory, sold separately)

Tygon® 2001 (for use with methanol, water and most general uses):
I.D. 0.79 mm (for SDMP302), I.D. 1.59 mm (for SDMP306)

* If the flow decreases with the above tubing, please use the larger size tubing.
* Tygon® is a trademark of Saint-Gobain Performance Plastics.

Notes

This product is designed for continuous liquid transfer applications.
Operation may become unstable if gas and liquid are alternately supplied.

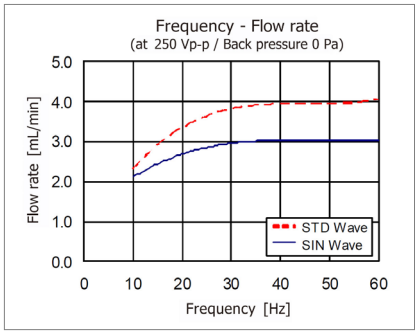
TFS (Takasago Fluidic Systems)
URL: https://www.takasago-fluidics.com/

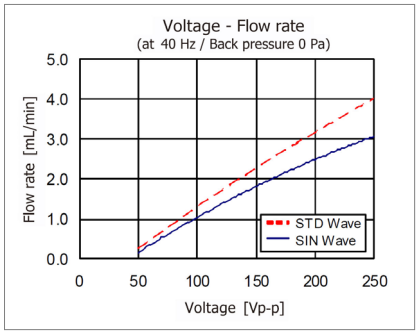
For inquiries, please use this QR code.

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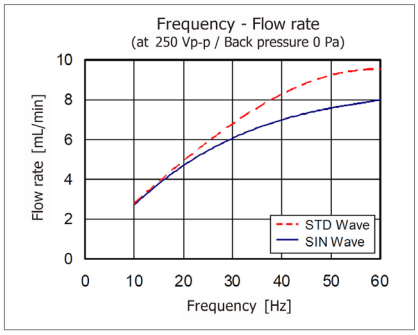
Flow Characteristics

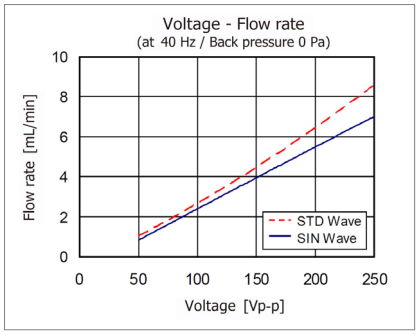
SDMP302





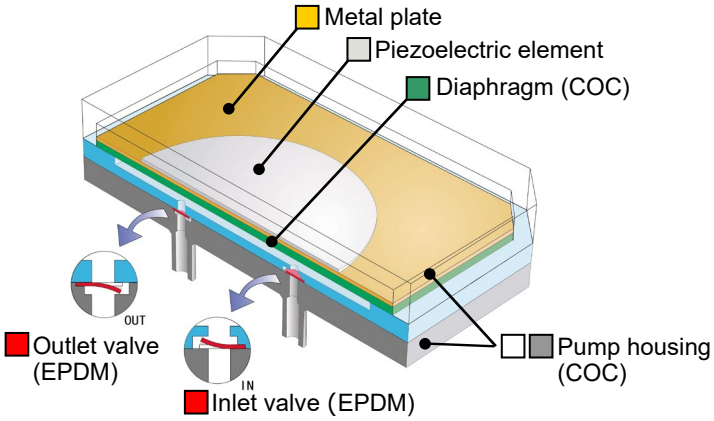
SDMP306





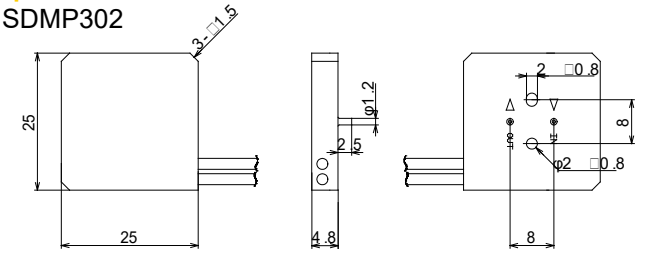
* This flow rate characteristic is a representative value and may vary depending on individual differences.

Internal Structure

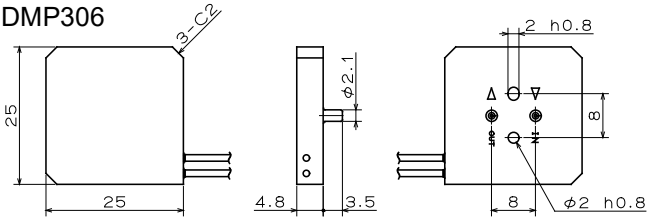


Appearance and Dimensions

SDMP302



SDMP306



Driver Board MPD-200A

This driver board is a thin, compact and lightweight, yet high-voltage circuit board, designed for the piezoelectric micro pumps. From a regular 5 VDC input voltage, it can easily generate the high voltage supply of approximately 250 Vp-p, 40 Hz necessary for driving the micro pumps.



Item	Specifications
Input Voltage	5 VDC ± 5 %
Output Frequency	1 ~ 60 Hz
Output Voltage	50 ~ 340 Vp-p
Number of Pumps Connectable	2 pieces (maximum)
External Dimensions, Weight	30 × 30 × 18 mm,approx.9 g

Controller MPC-200C

This is a compact and lightweight controller that can provide the high voltage power necessary for driving the micro pumps. It is user-friendly with a front panel digital display for configuring the output voltage and output frequency, and a memory function to store the latest setting used.



Item	Specifications
Input Voltage	5 VDC ± 5 %
Output Frequency	1 ~ 60 Hz
Output Voltage	60 ~ 300 Vp-p
Number of Pumps Connectable	2 pieces (maximum)
External Dimensions, Weight	80.6×31.4×90 mm 180 g
Attachment	AC adapter