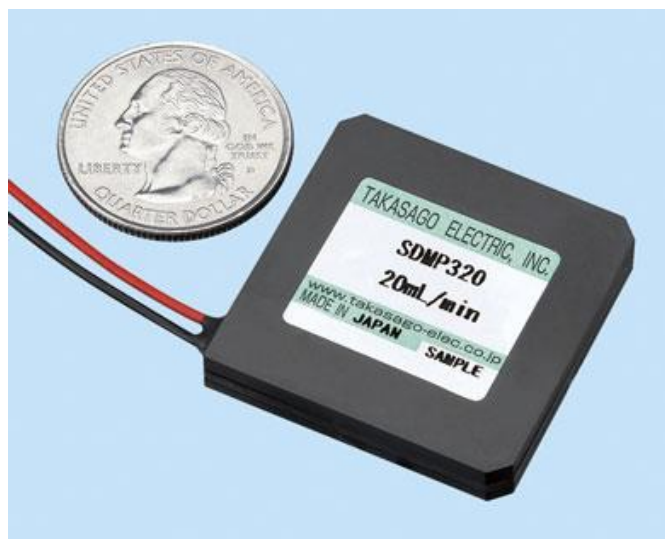


PIEZOELECTRIC MICRO PUMPS

SDMP320/330W



Features

- Small-sized, lightweight and slim.
- 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	SDMP320	SDMP330W <Under Development>
Pump Type	Piezoelectric Diaphragm Pump (Unimorph)	Piezoelectric Diaphragm Pump (Bimorph)
Typical Flow Rate	20 ml/min	30 ml/min
Typical Pump Pressure	35 kPa	-
Drive Voltage	60 ~ 250 Vp-p	
Drive Frequency	10 ~ 60 Hz	
Typical Suction Load Pressure	-1.0 kPa	
Operating Temp.	5 ~ 50 °C	
Wetted Materials	COC (Cyclic Olefin Copolymer) EPDM (Ethylene Propylene Diene Monomer)	
External Dimensions	33 × 33 × 5.5 mm	
Weight	Approx. 9 g	Approx. 12 g
Input / Output Pipes	φ1.8 – φ2.8 – L5.0 mm	

*1. The data above are based on sine wave drive. Flow rate and pump pressure are larger if driven by Takasago Standard wave.

*2. SDMP330W is under development and some of the specifications are not fixed.

*3. Smaller models (Typical flow rate: 3 or 7ml/min) are also available.

Note: Details including specifications may change without notification.

TAKASAGO ELECTRIC, INC.

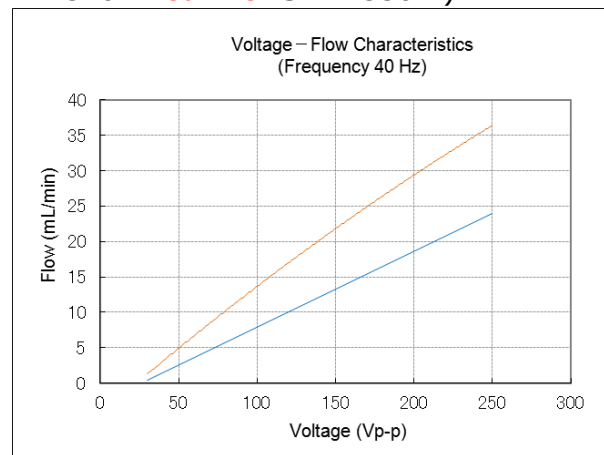
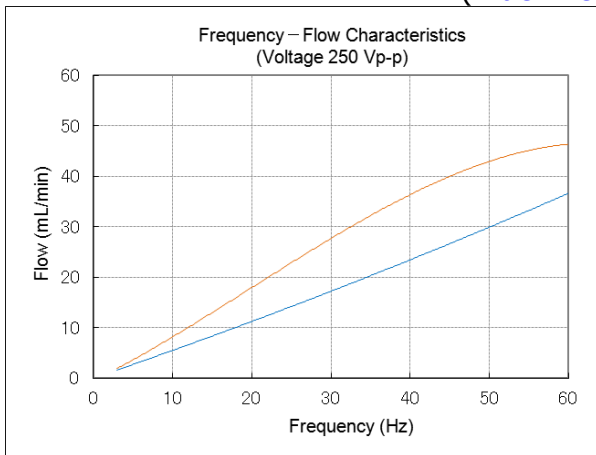
66 KAKITSUBATA, NARUMI-CHO, MIDORI-KU, NAGOYA, 458-8522 JAPAN

Tel +81-52-891-2301 Fax+81-52-891-7386

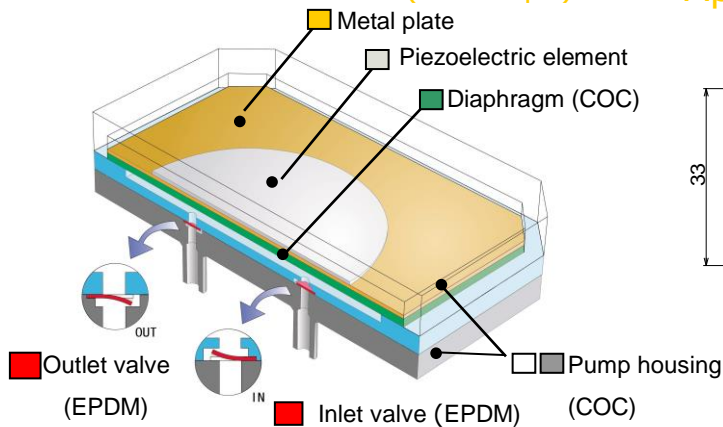
E-mail: info@takasago-elec.co.jp URL: <http://www.takasago-fluidics.com/>

Flow Characteristics

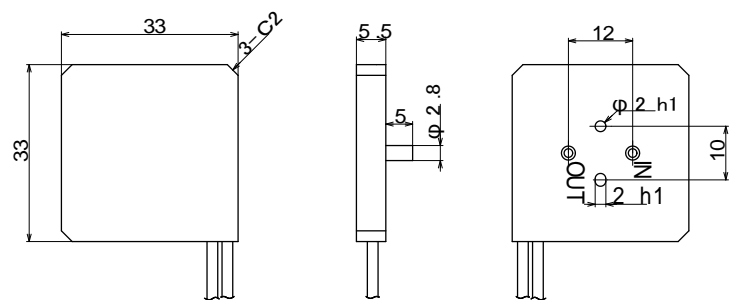
(Blue line: SDMP320 Red line: SDMP330W)



Internal Structure (Unimorph)



Appearance and Dimensions



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 \pm 5%
Output Frequency	1 ~ 60 Hz
Output Voltage	50 ~ 340 Vp-p
Number of Pumps Connectable	2 pieces (maximum)
External Dimensions, Weight	30 x 30 x 18 mm, approx. 9 g

Controller MPC-200A

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 \pm 5%
Output Frequency	1 ~ 60 Hz
Output Voltage	60 ~ 300 Vp-p
Number of Pumps Connectable	2 pieces (maximum)
External Dimensions, Weight	75 x 30 x 89 mm, approx. 140 g
Attachment	AC adapter