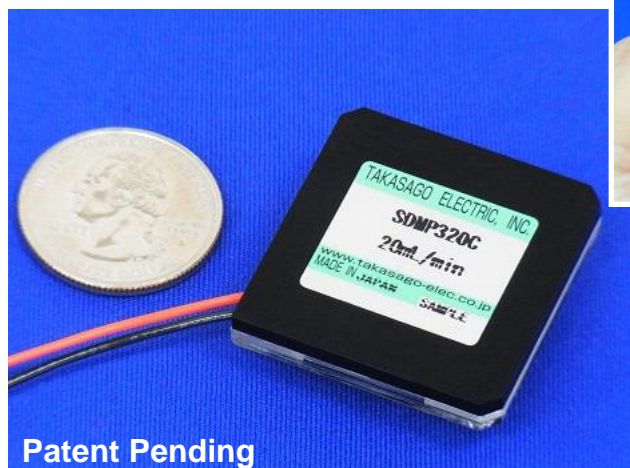


# Cartridge Type Piezo Pump

## SDMP320C



**Can be easily replaced for each fluid**

### Features

- A built-in magnet enables the pump cartridge to be easily removed from and attached to an actuator with a piezoelectric element.
- Sterilisation of the pump cartridge prior to use is possible.
- No metal is used as wetted materials.
- Self-priming is possible.
- Flow rate is adjustable by changing drive voltage or drive frequency.
- Small-sized, lightweight and slim.
- Low noise and low power consumption.

**Use the QR code on the right or the link below to see the movie "How to use"**

[https://youtu.be/OXMQHMF\\_qu8](https://youtu.be/OXMQHMF_qu8)



### Specifications (Target Values)

Model Number	SDMP320C
Pump Type	Piezoelectric Diaphragm Pump
Typical Flow Rate	20 ml/min
Typical Pump Pressure	20 kPa
Drive Voltage	60 to 250 Vp-p
Drive Frequency	10 to 60 Hz
Typical Suction Load Pressure	-1.0 kPa
Operating Temp.	5 to 50 °C
Wetted Materials	COC (Cyclic Olefin Copolymer) EPDM (Ethylene Propylene Diene Monomer)
External Dimensions	33 x 33 x 6.9 mm
Weight	Approx. 13 g
Input / Output Pipes	φ1.8-φ2.8-L5.0 mm

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

Note: Details including specifications may change without notification.

**TAKASAGO ELECTRIC, INC.**

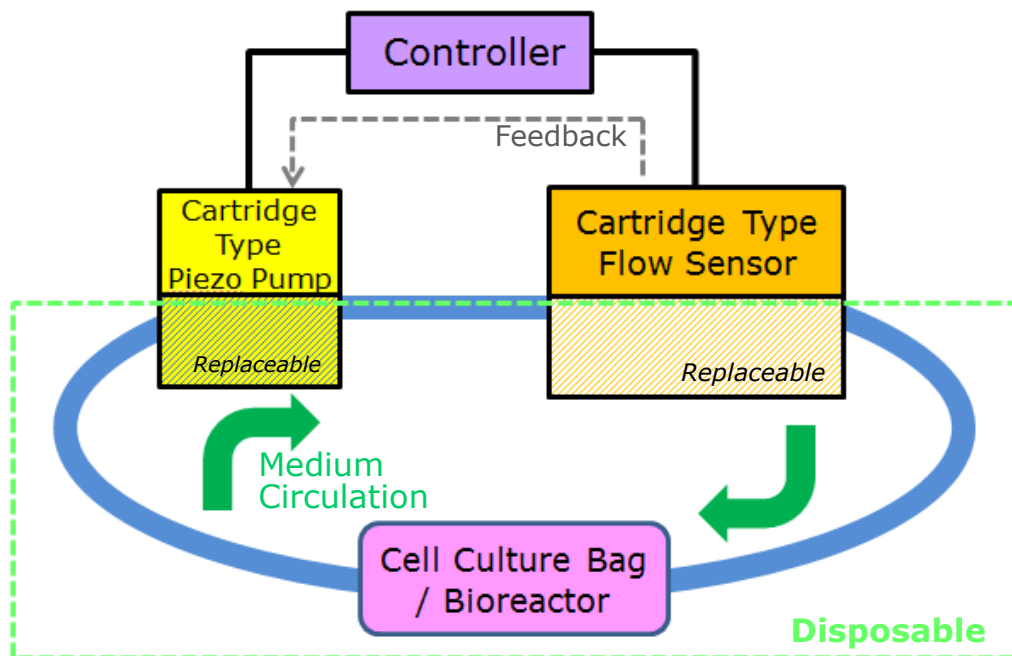
66 KAKITSUBATA, NARUMI-CHO, MIDORI-KU, NAGOYA, 458-8522 JAPAN

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

E-mail: [info@takasago-elec.co.jp](mailto:info@takasago-elec.co.jp) URL: <http://www.takasago-fluidics.com/>

## Application Example

### ●Flow Control System for a Biotech Application



The features of the Cartridge Type Piezo Pump are most useful for applications sensitive to cross-contamination, for example, biotech devices. It also works most effectively when used with other replaceable items as a system. The system in the photo above is one example; a circulation system of culture medium, which consists of a cartridge type flow sensor, the Cartridge Type Piezo Pump, and a controller. As the flow sensor monitors the flow and the controller adjusts the output of the pump accordingly, the flow remains very stable even over a long period, despite changes in the liquid level. Programmed flow control using an external input is also possible. All wetted parts can be replaced after each cell/tissue culturing cycle is completed.

#### Note:

- The controller is compatible with other Takasago piezoelectric micro pumps. It is also customisable for other flow sensors. Please contact us for details.
- The flow sensor in the photo above is manufactured by Aichi Tokei Denki Co., Ltd. and is currently under development. More information is available on request.