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# **Constant Vacuum Pump**

- Simple integration in any set-up
- Ideal for use with perforated microelectrode arrays
- User-friendly handling
- Precise control of suction

## multichannel \* systems

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### Precise control of suction

The constant vacuum pump (CVP) with pressure control is a vacuum pump with a precision pressure sensor and a waste bottle.

The differential sensor measures the pressure in the compartment attached to the waste bottle, and compares it to the ambient pressure. The suction pump is then regulated to maintain the selected negative pressure in this compartment. Hence, with this unit, it is possible to precisely control the suction and to keep the negative pressure stable.

#### **CVP in MEA-System Set-up**

The constant vacuum pump is the perfect additon to your MEA-System if you want to work with perforated microelectrode arrays.



You can establish and most importantly control the suction, so you get a better electrode-to-tissue contact without the need of a weight and your slice is kept in place. Moreover, your experiments is more reproducible as you can produce the exact same suction again.

All you need to do is to equip your MEA-System with a perfusion ground plate, which is available from Multi Channel Systems, and you can get started.



#### CVP and MEA2100-32-System

The MEA2100-32-System was designed specifically for acute slice experiments with perforated microelectrode arrays. Through the perforation, you can apply suction with the constant vacuum pump and keep the slice in place. Tubing and a perfusion cannula is already integrated in the system, so you just have to connect the CVP and you can start your experiment.

#### **Technical specifications**

Operating temperature Storage temperature Maximum pressure Resolution Supply voltage Dimensions (H x W x D) Weight Sensor type

+/- 0.1 mbar 110 V AC or 230 V AC 0.47 x 0.15 x 0.23 m 7.4 kg Differential: Target pressure in relation to actual ambient pressure +/- 2.5 % 1 A M 5 I

-200 mbar below atmospheric pressure

10 °C to 40 °C 10 °C to 50 °C

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Multi Channel Systems MCS GmbH

Aspenhaustraße 21 72770 Reutlingen Germany

Fon +49-7121-9 09 25 25 Fax +49-7121-9 09 25 11

sales@multichannelsystems.com www.multichannelsystems.com



Capacity of the pp-bottle

Sensor accuracy

Fuse

Multi Channel Systems MCS GmbH

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