

# Voltammetric Amplifiers

## Amperometry & Cyclic Voltammetry

### VA-10X

#### 19" amplifier with headstage



- Low-noise potentiostat, works in pA range
- Ideal for work on single cells
- Bandwidth > 10 kHz with optional frequency booster

### Applications

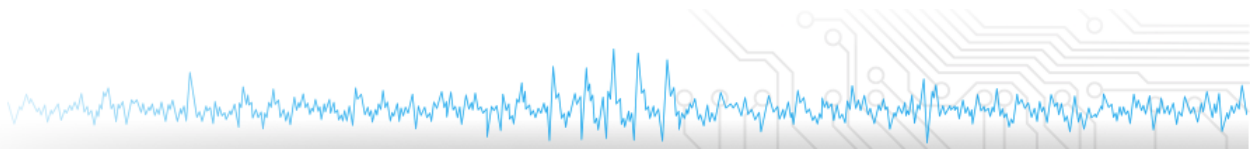
- Neurotransmitter detection (e.g. dopamine, glutamate)
- Scanning Ion Conductance Microscopy (SICM)
- Fast-Scan Cyclic Voltammetry (FSCV) with up to 1000 V/s
- Lipid bilayer recordings
- Use with Biosensors, self-made electrodes, ALA's carbon fiber electrodes, etc.

### VA-10M

#### Modular amplifier for EPMS-07 system

- Modular concept for highest flexibility
- One channel per module, combine several modules to multi-channel system
- Special multi-channel headstages available





# Miniature headstages

## For *in vivo* recordings



- Single-channel or multi-channel
- Individual command voltages
- Flexible cable for freely behaving animals

## VA-10X

### Standard Features

- Gain (mv/pA): 0.5, 1, 2.5, 5, 10, 25, 50
- Low-pass Filter (Hz): 20, 50, 100, 200, 300, 500, 700, 1k, 1.3k, 2k, 3k, 5k, 8k, 10k, 13k, 20k (8-pole Bessel filter)
- Feedback resistor: 500 M $\Omega$  ( $\pm 20$  nA)
- Command range:  $\pm 1$  V
- Frequency booster: enhance recording bandwidth to several 10 kHz
- Telegraph Gain: +1 V ... +7 V, (1 V/step)
- Telegraph Filter: - 8 V ... +7 V, (1 V/step)

### Options for Customization:

- Gain: e.g. 0.005 mV/nA ... 5 mV/nA
- Filter frequency: single or multiple custom frequencies
- Command range: e.g.  $\pm 2$  V,  $\pm 3$  V
- Feedback resistor: e.g. 1 M $\Omega$ , 5 M $\Omega$ , 50 M $\Omega$ , 100 M $\Omega$ , 1 G $\Omega$ , 5 G $\Omega$ ,
- Telegraph: e.g. 0.4 V/step
- Headstage: Classic 3-electrode or simple 2-electrode approach

Ask us about the  
custom design to  
replace the  
Dagan Chem Clamp  
amplifier!!!

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