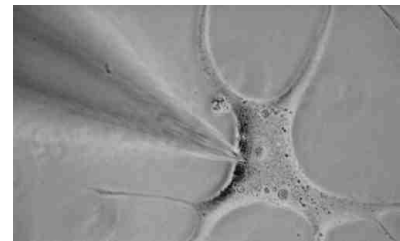
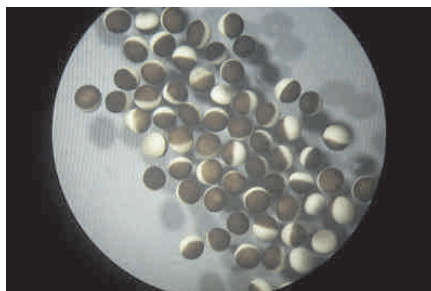
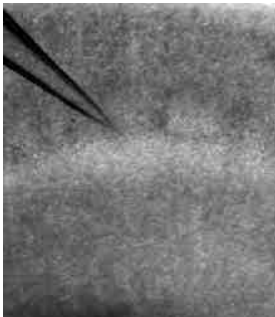
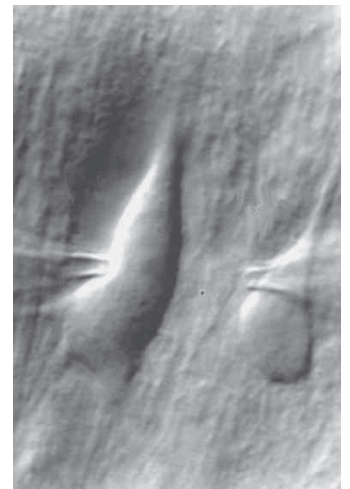
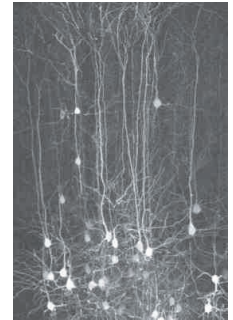
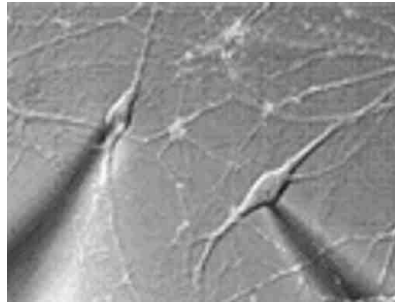
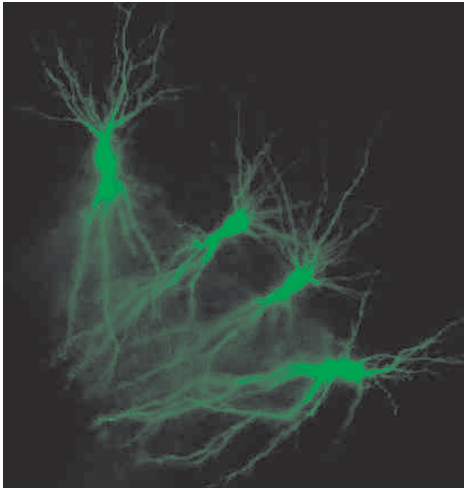


Product Overview



For meanwhile over 25 years npi electronic GmbH develops and produces equipment for research in the life sciences (especially physiological and pharmacological basic research) with main focus on neurosciences and excitable tissues. Instruments include patch and voltage clamp amplifiers, oocyte amplifiers, extracellular amplifiers, stimulus isolators, voltammetric and amperometric amplifiers, filters, drug application systems, micromanipulators, temperature controllers and data acquisition systems. npi electronic can also supply integrated systems like the robotic ScreeningTool for ion channel drug screening using oocytes, and **complete setups**. npi electronic is expert in registration of bioelectrical signals and in microelectrode techniques.





Electronic Instruments
for the Life Sciences

ELC-01X



Versatile All-in-One Amplifiers

Juxtacellular filling of dyes and DNA, extra- and intracellular recordings, whole-cell patch clamp in CC or VC mode, **single cell stimulation and electroporation**, iontophoresis, voltammetric and amperometric measurements. Now with **seal resistance display** and **switchable headstage**.

ELC-03XS



SEC series



Single Electrode Voltage & Current Clamp Amplifiers

Unique current- and voltage/patch-clamp amplifiers providing high (> 20 kHz) switching frequencies for accurate measurements with sharp microelectrodes and patch pipettes.

TEC series



Two Electrode Voltage & Current Clamp Amplifiers

Versatile current and voltage-clamp amplifiers with $\pm 150V$ output and no virtual ground. Versions for oocytes, and special versions for other preparations such as invertebrate neurons, muscle or plant cells.

RS-01R



Series Resistance Measurement

Instrument for measuring and showing series resistance in oocyte experiments.

BA-01X



Bridge / Current Clamp Amplifiers

Versatile, wide-bandwidth, high impedance current-clamp amplifiers for recordings with sharp and patch electrodes. Features x10 current range for electro-poration (BA-01X, BA-03X), and potential gain and filters for extracellular recordings (BA-03X).

BA-03X



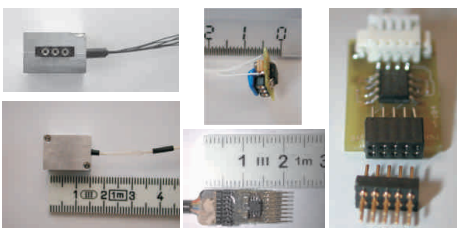
VA-10X



Voltammetric / Amperometric Amplifier

The VA-10X is a picoampere range current amplifier that is intended for voltammetric or amperometric measurements with carbon-fiber microelectrodes.

Mini Headstages



Multisite Recording (Tetrode) Amplifiers

Amplifiers for *in vitro* and *in vivo* experiments including free moving animals with miniature headstages. Also available for eight or sixteen recording sites and stimulation as well.

NEW



ISO-STIM 01D



Stimulus Generator and Isolator

Stimulus isolator with external power supply, and $\pm 100\text{ V} / \pm 10\text{ mA}$ **bipolar** output, optionally with a true current clamp using a PI controller.

NEW



Timer

Easy-to-use timing unit for generating square pulses of fixed amplitude (TTL, +5 V) and variable length and delay. Allows up to 999 cycles and has a cycle counter with digital display.

EXT-02F



Extracellular Amplifier

One or two-channel amplifier with external power supply, high and low pass filters, gain up to 10k, differential input and audio monitor. Optionally, the EXT-02F can be equipped with headstages.

EXT-T2



Extracellular Amplifier for Two Tetrodes

Amplifier with internally adjustable high pass and low pass filters and gain up to 1000. Also available with MiniHeadstages for recording in free moving animals.

NEW

PEXT-01



Extracellular Amplifier / Drug Ejector

Amplifier with high pass and low pass filters and gain up to 10000. Drug ejector with analog or digital timer and analog or digital manometer.

LHBF-48X



Signal Conditioner

Low and high pass BESSEL filter with adjustable gain, offset compensation and differential input.

LBF-48X



Low pass BESSEL filter with adjustable gain and offset compensation.

TC/PTC series



Accurate Temperature Controllers

Precise control and low-noise operation make them ideal for electrophysiological setups.

ACI-01

H-MIC20



Lab Accessories

Automatic chlorider (ACI-01), microincubator (H-MIC), chambers (MS series), pipette holders, grounding box.

EPMS-07 series



Modular System

Modular system for recording and processing of bio-electrical signals in electrophysiology. The system is housed in a 19" rackmount cabinet with a power supply and has room for up to 7 plug-in modules.

ELC-01MX



NEW

Extracellular loose-patch clamp amplifier module

SEC-03M



Single electrode VC/CC module

PEN-03M



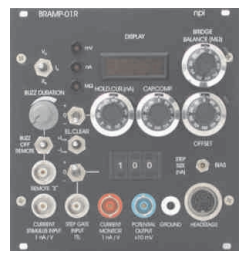
Penetration module

HVC-03M



High voltage clamp module

BRAMP-01R



Bridge amplifier module

EXT-10C



Extracellular amplifier modules

EXT-10 2F



EXT-08



EXT-T1MR/I-T1M



For recordings with tetrodes

RES-06



Elect. resistance test module

ISO-STIM 01M



Stimulus isolator module

DPA-2FX/2FS



High/low pass filter module

DPA-2FL



Low-noise filter module

LPBF-01GX



Low pass filter module

BF-48DGX



8-pole BESSEL filter module

PA-01GX



Preamplifier module

PA-2S



Preamplifier module

**EPMS-07 series
(continued)**



Electronic Instruments
for the Life Sciences

MVCC-02



Balance module

MVCS-02M



Iontophoresis module

PDES-01TM



Pneumatic drug ejection modules

PDES-01DM



Tracer injection module

HV-TR150



Signal envelope/integrator module

INR-01-T



ION-01M



Insensitive amplifier module

TMR-02M



Timer module

DI-01



Diff./integrator module

WD-01



Window discriminator module

AUDIS-03M



Audio module

INT-20M



Breakout box module

NEW

VA-10



Amperometric/voltammetric amplifier module

TRC-01M



Transient compensation module

NEW

ELP-01D



Electroporator, dye injector and transactor for tissue and cell cultures

NEW

MVCS series



High Speed Iontophoresis Amplifiers

Due to the perfect capacity compensation of the electrode a spatial resolution of 1 μm and a time resolution of 500 μs is achieved. Suitable for receptor mapping and for simulating synaptic events. Also available for slower applications.

microJECT



PDES series



High Speed Pneumatic Drug Ejectors

< 1 ms injection time with *microJECT*. Digital and analog versions available comprising one or two channels. One channel digital versions can also be equipped with a hold channel.

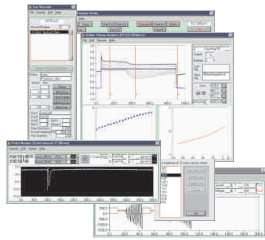


npi

Electronic Instruments
for the Life Sciences

CellWorkS

npi electronic



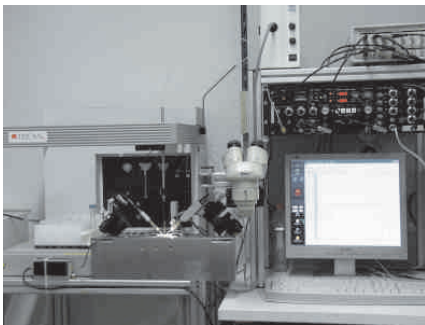
INT-20X



VD-24



ScreeningTool



CellWorks Software

Modular, multi-user turnkey software solution for data acquisition, stimulation, amplifier control and automatic solution handling. Supports low-cost, 16-bit data acquisition boards from National Instruments (M-Series, B-Series and E-Series).

Breakout Box for CellWorks

Convenient breakout box for connecting the CellWorks software to amplifiers or valves, now also available with USB 2.0 interface.

Valve Controller

Instrument for controlling manually or automatically up to 24 valves using npi's "cool valve" technology.

ScreeningTool

Two electrode voltage clamp of oocytes expressing heterologous ion channels is a basic tool for drug discovery. npi electronic's innovative ScreeningTool system integrates automated solution delivery, a revolutionary miniature chamber design and the state-of-the-art TEVC amplifier to yield unrivaled speed (<80 ms), reproducibility and efficiency to these applications with minimum training.

npi electronic is also distributor for



<http://www.alascience.com>



Burleigh

<http://www.exfo-burleigh.com>



<http://www.scientifica.uk.com>

Drug application systems, recording chambers, electrode holders etc.

Micromanipulators, mounting solutions
fluorescence illumination.

Micromanipulators, mounting solutions
SliceMaster, FibreMaster, motorized microscope.

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