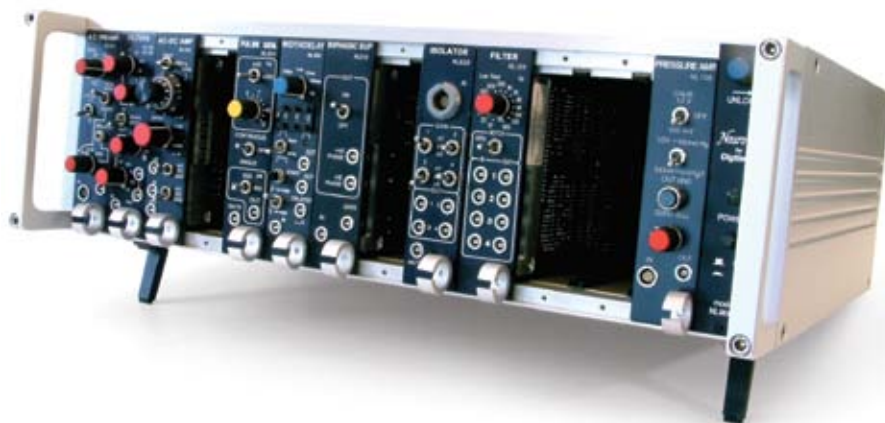


A complete solution to your electrophysiology needs.



NL905 Small Case System and Power Unit



This smaller case holds four NeuroLog modules instead of thirteen.

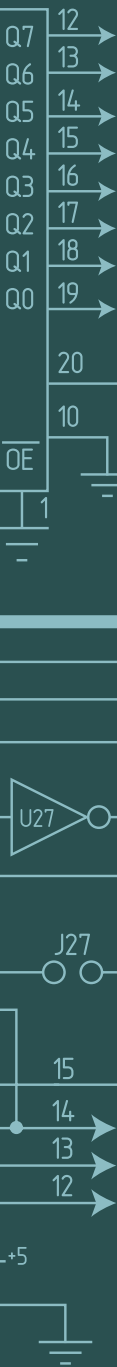
NeuroLog Modular System

The NeuroLog System provides a modular and highly versatile means of carrying out intracellular, extracellular or transducer-based recordings, signal conditioning, pulse generation or electrical stimulation within one compact device.

The NL900D Case & Power Supply unit allows up to thirteen modules to be installed. This means a single NeuroLog System can be used to amplify several different parameters, such as extracellular spikes, intracellular potentials or even blood pressure, as well as produce outgoing trigger pulses to other pieces of equipment or electrically stimulate a preparation.

Amplification & Signal Conditioning

The NeuroLog System provides AC or DC coupled amplification of biological signals from transducers, single electrode or multi electrode configurations. DC coupled amplifiers output absolute voltage levels and are most commonly employed for intracellular or transducer recording where baseline membrane potentials or slow voltage shifts are of interest.



With AC coupled amplifiers, the “DC baseline” is removed by high-pass filtering. Such amplifiers are used for extracellular recording of action potentials in neuronal preparations, ECG, EMG or EEG waveforms. The variety of NeuroLog pre-amplification and amplification modules means that users can develop systems specifically suited to their particular application. The NeuroLog range also contains a number of filter and signal conditioning modules which can be used prior to final data acquisition.

Extracellular AC Recording

The NL100AK head-stage and NL104A AC PRE-AMPLIFIER provide an excellent combination suitable for extracellular recordings from neuronal preparations with sharp electrodes. They can be used in single-sided or differential recording modes, provide impedance matching for micro-electrode recording and feature low noise amplification. Continuously adjustable bandpass filtering from 0.1 Hz to >50 kHz is available through the NL125/6 FILTERS. In addition, the NL201 SPIKE TRIGGER can be used to convert spikes into uniform TTL pulses which can then be counted, converted to frequency or further analyzed using other modules. Use of the NL120S AUDIO AMPLIFIER and NL985S LOUDSPEAKER would allow the spikes to be monitored audibly.



Intracellular DC Recording

The NL102G DC PREAMPLIFIER is a suitable amplifier for intracellular recording (it can also be used for extracellular micro-electrode recordings). Used with the NL106 AC/DC AMPLIFIER it provides a total gain up to x1,000, while the NL125/6 FILTERS give continuously adjustable bandpass (and notch) filtering from DC to >50 kHz. The NL102G features capacitance neutralization, current injection (up to 100 nA) and impedance checking. Internally generated current injection and impedance checking can both be controlled by other devices or NeuroLog modules. The NL102G now includes the NL412 PULSE box, allowing remote and full activation of the capacitance compensation circuitry. This “buzz” process can aid penetration during electrode impalement.



Four Channel Isolated Amplification for EEG, EMG or ECG Recording

An ideal system for multi-channel AC recording of physiological signals such as EEG, EMG or ECG in the research environment. The system provides a wide range of amplification and filter settings. The NL844 4-CHANNEL PREAMPLIFIER can be positioned near the recording site, reducing the length of the electrode cables and minimizing interference. The outputs are connected to the NL820A ISOLATOR (housed in the NeuroLog case), where further amplification of the signals can be selected on a channel by channel basis. Further filtering can be carried out by the various NL134/5/6 or NL144 FILTERS, while the signal can be conditioned for ADC input using the NL530 CONDITIONER.





Transducer Measurements

The NL108A PRESSURE AMPLIFIER provides an easy method of monitoring physiological pressure changes and can be used in combination with your own or our disposable (NL108T2) / reusable (NL108T4, shown opposite) pressure transducers. A pressure transducer and appropriate lead connects to the NL108A module, allowing continuous monitoring of parameters such as blood or intra-tracheal pressures. The output of the NL108A can be fed directly to a chart recorder or ADC interface for PC-based acquisition.



Pulse Generation & Electrical Stimulation

The NeuroLog range includes several modules capable of pulse generation. Pulse patterns can be pre-defined in a variety of ways, allowing you to control other modules within the NeuroLog rack or send TTL compatible trigger pulses to external devices, such as stimulators or acquisition systems. The NeuroLog range includes the small constant current NL800A STIMULUS ISOLATOR which can be controlled by other NeuroLog modules. Our new NL512 BIPHASIC BUFFER allows one or two NL800A's to be controlled by an analog waveform, such as that produced by a computer controlled DAC.

NeuroLog Modular System

Part No.	Product Description
NL-900D	NeuroLog [®] case and power supply
NL-905	NeuroLog [®] small case and power supply
NL100AK	NeuroLog Pre Amp Head Stage (for NL104A) Headstage, including NL973A Accessory Kit
NL100RK	NeuroLog Pre-Amp with Stimulus Relay, NL100AKS Headstage & NL100C Stimulus Controller
NL101	NeuroLog Electrode Chamber (specify pin # and o.d.)
NL102G	NeuroLog DC Pre-Amplifier with Pulse Buzz (NL 412)
NL104A	NeuroLog AC Pre-Amplifier
NL106	NeuroLog AC/DC Pre-Amplifier
NL120S	NeuroLog Audio Amplifier
NL125/6	NeuroLog Filter (Lo-cut, Hi-cut, 50/60Hz notch)
NL136	4-channel Low-Pass Filter + 60Hz Notch
NL144	4-channel High-Pass Filter
NL201	NeuroLog Spike Trigger
NL301	Pulse Generator (replaces NL300)
NL703	NeuroLog EMG Integrator
NL820A	NeuroLog 4 Channel Isolation Amplifier
NL822	2-channel remote AC pre-amplifier
NL822/P	2mm plugs, with BLACK insulator, for NL822/824 etc. (pack of 10)
NL844	NeuroLog 4 channel AC Preamplifier
NL985S	Loudspeaker for NL120S (with safety plugs)
AutoMate Scientific offers a complete line of Digitimer NeuroLog modules.	

International prices add 20%. Email or visit web store for latest prices in US Dollars.