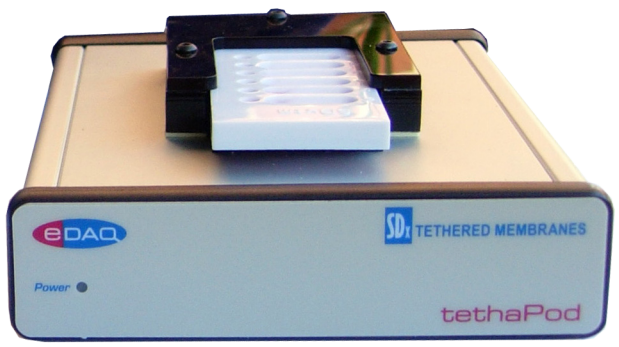
tethaPod (Model SDx-R1)

Tethered Membrane Technology!



tethaPod showing tethaPlate in place

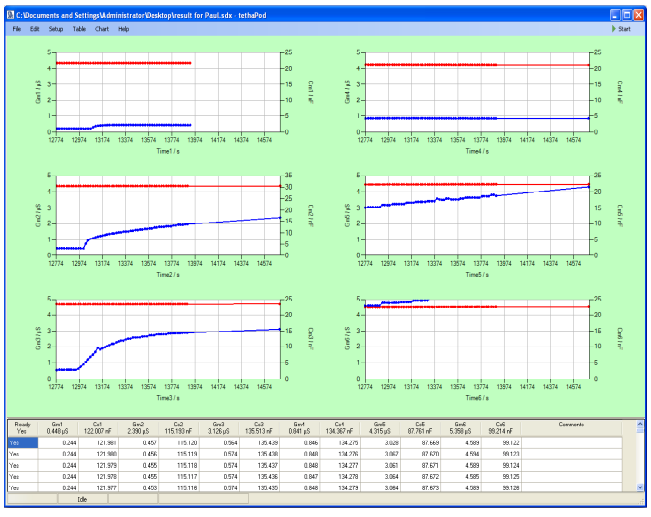
- USB powered
- Plug and play software
- Graphs and tabulates membrane conductance
- Measures from six sample chambers in tethaPlate
- Compact. Use with netbook for tiny footprint!

Description

The SDx **tethaPod**™ (SDx-R1) continuously measures conductance of tethered phospholipid bilayer membranes. Up to six samples can be measured at the same time using **tethaPlate**™ sample cartridges (SDx-T10). Ideal for studies of embedded ion channel proteins, including screening experiments for potential pharmaceuticals.

Each experiment is conducted on millions of 'parallel' ion channels, giving a large total ion current and negating the need for the high gain amplifiers and complicated electronics typical of single channel recording techniques, such as patch clamping. Moreover the use of proteins grown by bacterial culture, and purified by modern proteomic methods, ensures that the response is from a single type of ion channel, unlike the results from whole cell or oocyte voltage clamping.

Each tethaPod is supplied with software to display, store and graph membrane resistance, conductance, and capacitance values versus time. Data can be easily exported to Microsoft Excel or similar software for dose response or other calculations.



tethaPod software graphs and tabulates data from the six tethaPlate chambers

Applications

- *Biophysics:* examine phospholipid mixtures for the ability to form coherent bilayer membranes.
- *Proteomics:* check protein fractions to determine membrane compatibility and ion channel activity.
- *Pharmacology:* Screening assays and dose/response experiments on ion channel toxins, blockers, and activators.
- *Electrophysiology:* ion channel behaviour.

Compatibility

The **tethaPod** connects via USB (as a virtual serial, or COM, port device) to Windows XP, Windows Vista, or Windows 7 computers.

Specifications

Channels:	6
Communication:	USB Virtual Serial Port (VSP)
COM Port Settings:	9600 baud; 8 bits; 1 stopbit; no parity
AC Frequencies:	0.125, 0.25, 0.5, 1.25, 2.5, 5.0, 12.5, 25, 50, 1000 Hz
AC Amplitude:	±10 mV (20 mV p-p)
DC Bias:	±500 mV (max)
Membrane Resistance:	10 – 5000 kohm (0.2 – 100 µS)
Power:	Supplied by USB connection
Dimensions (h x w x d):	50 x 129 x 168 mm (2" x 5" x 6.6")
Weight:	470 g (~1 lb)
Operating conditions:	0 to 35 °C 0 to 90% humidity (non-condensing)
eDAQ reserves the right to alter these specifications at any time.	

WARRANTY: **tethaPod** is supported by a one year warranty

www.**eDAQ**.com

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