



Biosensor isoPod™ (Model EP352)



- Software controlled
- Plug and play installation
- Electrical isolation
- Input ranges, from ± 20 nA to ± 20 μ A
- Offset control to zero background signal

Description

An electrically isolated, compact signal conditioner for use with **e-corder** recording units, for continuous monitoring of low current amperometric sensors.

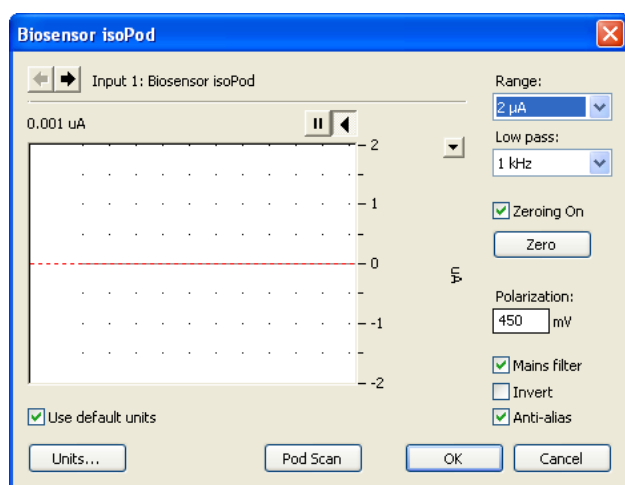
Compatibility

This isoPod be used with most types of low current amperometric sensor that use two electrodes (a working and counter electrode). Also suitable for use with polarographic dissolved oxygen electrodes. It can be used with nitric oxide electrodes but the more sensitive Nitric Oxide isoPod is usually recommended for this application.

Use with eDAQ Chart software version 5.5.7, or later, on Windows XP, or later, computers.

Applications

Ideal for chemical, biochemical, or physiological studies where continuous monitoring of an amperometric sensor is required. A typical sensor could be an oxidase-coated electrode where hydrogen peroxide, produced by the oxidase enzyme, is oxidized at the working electrode.



Biosensor isoPod control dialog

Theory of Operation

The Biosensor isoPod applies a polarizing voltage to a suitable sensor and measures the current resulting from the oxidation, or reduction, of a substrate at the working electrode. An analog voltage signal, proportional to the current flow, is output.

Polarization values between -2000 and $+2000$ mV can be entered. Typical settings would be -800 mV for dissolved oxygen, $+800$ mV for nitric oxide, and $+450$ mV for hydrogen peroxide.

The isoPod has four gain settings, and at each setting the **e-corder**, with Chart software, records at 16 bit resolution which can give better than picoampere resolution.

The isoPod runs on DC power and can be used inside a Faraday cage for lowest noise operation.

Specifications

Input ranges (and resolution):	20 nA (6.25 fA) 200 nA (62.5 fA) 2 μ A (625 fA) 20 μ A (6.25 pA)
Maximum output signal:	2 V
Polarization range:	-2000 to $+2000$ mV
Polarization resolution:	1 mV
Zero offset:	± 20 μ A
Low-pass filters:	1 – 1000 Hz in 1:2:5 steps
RMS noise (typical):*	100 pA @ 1000 Hz filter 25 pA @ 100 Hz filter 7 pA @ 10 Hz filter 1 pA @ 1 Hz filter
Input connector:	BNC
Dimensions (l x w x h):	108 x 58 x 35 mm (4.25" x 2.28" x 1.38")
Weight:	200 g (7 oz)

eDAQ Pty Ltd reserves the right to alter these specifications at any time.

* On 20 nA range, with 1 Gohm load, inside a Faraday cage.