



## dO<sub>2</sub> isoPod™ (Model EP354)



### Description

An electrically isolated, compact signal conditioner for use with **e-corder** recording units, for continuous monitoring of polarographic (Clark) dissolved oxygen electrodes.

### Compatibility

This isoPod be used with most types of polarographic oxygen electrode, including the:

- ET1120 Micro-oxygen electrode

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 oxygen sensor is required. Electrical isolation minimizes interference with nearby pH, conductivity, ISE and similar sensors used in multi-parametric studies.

- Software controlled
- Plug and play installation
- Electrical isolation
- Input ranges, from  $\pm 20$  nA to  $\pm 20$   $\mu$ A
- Offset control to zero background signal

### Theory of Operation

The dO<sub>2</sub> isoPod applies a polarizing voltage to a suitable oxygen sensor and measures the current resulting from the reduction of O<sub>2</sub> at the working (cathodic) electrode. An analog voltage signal, proportional to the current flow, is output. Polarization can be selected between  $-500$  and  $-1000$  mV but usually a value of  $-800$  mV is close to optimal.

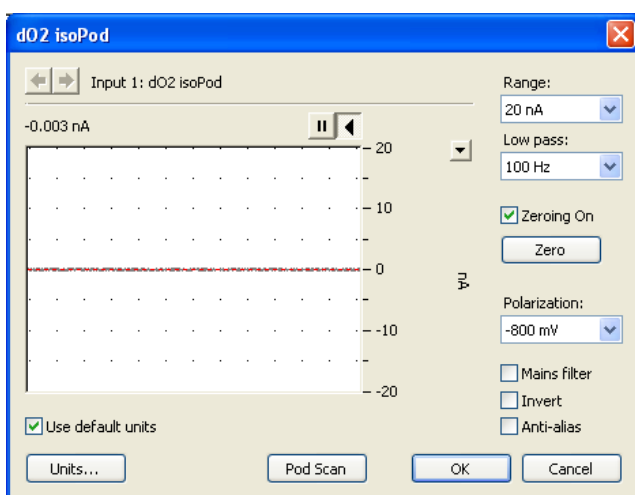
The isoPod has four gain settings, and at each setting the **e-corder**, with Chart software, records at 16 bit resolution which can give better than picoampere resolution.

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 $\mu$ A (625 fA) 20 $\mu$ A (6.25 pA)
Maximum output signal:	2 V
Polarization:	$-500$ to $-1000$ mV in 50 mV steps
Zero offset:	$\pm 20$ $\mu$ 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)

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



dO<sub>2</sub> isoPod control dialog

WARRANTY: eDAQ hardware units are supported by a three year warranty

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