

Product Note P2



HiZ: High Impedance Potential Pre-Amplifier

The Ivium Technologies HiZ module has been designed to improve the electrometer performance: lower leakage, and higher input impedance.

Note that the HiZ module lowers the bandwidth.



1. HiZ specifications

Electrometer:

Input Impedance	$> 10^{15} \Omega // 0.2 \text{pF}$	
Input bias current (typical)	3fA	
Input range	$\pm 10\text{V}$	$\pm 200\text{mV}$
Voltage gain	1X	50X
Bandwidth	800kHz	220kHz
Slewrates	0.7V/us	

Potentiostatic mode using HiZ:

Bandwidth	800kHz (histability ¹)	
Applied resolution		6.6uV for IviumStat
Applied resolution		2.5uV for CompactStat
Applied voltage accuracy		$\pm 0.05\text{mV}$
Measurement resolution	40nV	0.8nV for IviumStat
Measurement resolution	16nV	0.3nV for CompactStat

Size	w x d x h = 3.3 x 6.3 x 1.5 cm
Weight	60 gram
Interfacing/connectivity	module connects in-line with cell cable

2. Installation

The HiZ unit is directly connected between the instrument and the cell cable. It is ready for use, it is not necessary to activate any options.



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¹ In potentiostatic mode, the HiZ module can only be used in histability mode.