



IVIUM-n-Stat Multichannel potentiostat

The first affordable multichannel high performance instrument!



Up to 8 channels per frame
Stackable up to 8 frames with 64 channels

Each channel with integrated impedance analyser!

IVIUM-n-Stat mainframe:

- 1-8 channels per frame, stackable up to 64 channels
- Independent floating operation
- Modules encapsulated for easy handling
- 2-mode software:
 - standard: for independent operation per channel
 - synchronized: synchronous control of multiple channels

sModule insertable channel:

- ± 2.5 A & ± 10 V or ± 5 A & ± 10 V
- Each channel with integrated impedance analyser: 10 μ Hz to 250 kHz (optional to 1 MHz)
- Data acquisition rate: 100 kHz
- Current ranges 10 nA – 10 A (optional 10 pA, 100 pA, 1nA)
- Peripheral analog/digital channels

Applications:

- Batteries
- Fuel cells
- Electrode development
- Biotechnology
- Corrosion

Address:

Ivium Technologies B.V. www.ivium.nl
De Zaale 11 info@ivium.nl
5612 AJ Eindhoven Tel. +31 40 2390600
The Netherlands Fax. +31 40 2390601



SPECIFICATIONS: sModule

System Performance:

4 Electrodes	WE, CE, RE and S
Current compliance	± 2.5 A or ± 5 A
Maximum output Voltage	± 10 V below 1 A and ± 8 V up to 2.5 A
Potentiostat Bandwidth	500 kHz
Stability settings	High Speed, Standard, and High Stability
Programmable response filter	1 MHz, 100 kHz, 10 kHz, 1 kHz, 10 Hz
Signal acquisitions	dual channel 16 bit ADC, 100.000 samples/sec

Potentiostat:

Applied potential range	± 10 V, with 0.33 mV resolution
Applied potential accuracy	0.2%, or 2 mV
Current ranges	± 10 nA to ± 10 A in 10 steps (optional down to ± 10 pA)
Measured current resolution	0.015% of current range, minimum 1 pA (optional 1 fA)

Galvanostat:

Applied current resolution	0.33% of applied current range
Applied current accuracy	0.2%
Potential ranges	± 10 mV, ± 100 mV, ± 1 V, ± 10 V
Measured potential resolution	0.04% of potential range, minimum 0.4 μ V

Impedance Analyser:

Frequency range	10 μ Hz to 250 kHz (optional up to 1 MHz)
Amplitude	0.015 mV to 1.0 V, or 0.03% to 100% of current range
DC offset	16 bit dc offset subtraction, and 2 dc-decoupling filters

Electrometer:

Input impedance	>1000 Gohm // <8 pF
Input bias current	<10 pA
Bandwidth	>1 MHz

Peripheral connections:

2 Analog in	0 to ± 10 V, 16 bits resolution, bandwidth 40 kHz
1 analog out	0 to +4 V, 16 bits resolution
1 Digital input, 3 Digital outputs	0 to +5 V
I-out and E-out	analog monitor for cell current and potential
AC-out	± 0.5 V sinewave 10 μ Hz-250 kHz with variable attenuation
Channel-X, Channel-Y inputs	± 4 V: to record impedance from peripheral devices

Environment:

Size	w x d x h = 3 x 35 x 13 cm
Weight	0.7 kg
PC requirements	Windows XP, Vista or 7, with free USB port

SPECIFICATIONS: Ivium-n-Stat main frame

Slot positions	8 (frames can be stacked for more channels)
2 Options	20 A (8 x 2.5 A) or 40 A (8 x 5 A)
Common connectors	GND and EMO control input
Power requirements	100-240 V, 47-63 Hz, 300 W or 600 W
Interfacing	USB 1.1 or 2.0 compliant
Size	w x d x h = 47 x 36 x 14 cm
Weight	6.2 kg (no modules) / 11.8 kg (with 8 modules)